



Open Source Used In Threat Grid Appliance 2.19

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Text Part Number: 78EE117C99-1560834012

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1.2 Iz4 1.9.4

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Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

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1.5 mkinitcpio 25-2

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```
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```

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```
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```

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1.6 nuid 1.0.1

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1.7 distorm 3.4.1 1

1.7.1 Available under license :

:[diStorm3]:

The ultimate disassembler library.

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1.8 bro 2.6.1-6

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> 2005-10-07-23:23:55 Test_Notice 141.42.64.125:56730/tcp -> 125.190.109.199:80/tcp (uid CIEkJM2Vm5giqnMf4h)

test

141.42.64.125 = <skipped> 125.190.109.199 = <skipped>

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Cybersecurity Directorate
National Center for Supercomputing Applications
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@load ./main

@load ./weird

There should be no overhead imposed by loading notice actions so we

load them all.

```
@load ./actions/drop
@load ./actions/email_admin
@load ./actions/page
@load ./actions/add-geodata
```

```
# Load here so that it can check whether clustering is enabled.
```

```
@load ./actions/pp-alarms
```

```
#separator \x09
```

```
#set_separator ,
```

```
#empty_field (empty)
```

```
#unset_field -
```

```
#path notice
```

```
#open 2017-12-21-02-27-54
```

```
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
```

```
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
```

```
1348168976.557131 CIEkJM2Vm5gignMf4h 192.168.57.103 35391 192.168.57.101 55968 - - - tcp
```

```
GridFTP::Data_Channel GridFTP data channel over threshold 2 bytes - 192.168.57.103 192.168.57.101 55968 - -
```

```
Notice::ACTION_LOG 3600.000000 F - - - - -
```

```
#close 2017-12-21-02-27-54
```

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#separator \x09

#set_separator ,

#empty_field (empty)

#unset_field -

#path notice

#open 2017-12-21-02-30-22

#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude

#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double

1396976220.863714 CHhAvVGS1DHFjwGM9 173.203.79.216 41459 107.170.241.107 443 - - - tcp

Heartbleed::SSL_Heartbeat_Attack An TLS heartbleed attack was detected! Record length 16368. Payload length
16365 - 173.203.79.216 107.170.241.107 443 - - Notice::ACTION_LOG 3600.000000 F - - - -

1396976220.918017 CHhAvVGS1DHFjwGM9 173.203.79.216 41459 107.170.241.107 443 - - - tcp

Heartbleed::SSL_Heartbeat_Attack_Success An TLS heartbleed attack detected before was probably exploited.

Message length: 16384. Payload length: 16365 - 173.203.79.216 107.170.241.107 443 - - Notice::ACTION_LOG
3600.000000 F - - - -

#close 2017-12-21-02-30-22

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```
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-31-09
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1398558136.430417 CHhAvVGS1DHFjwGM9 192.168.18.50 62277 162.219.2.166 443 - - - tcp SSL::Weak_Key Host
uses weak DH parameters with 1024 key bits - 192.168.18.50 162.219.2.166 443 - - Notice::ACTION_LOG
86400.000000 F - - - - -
1398558136.430417 CHhAvVGS1DHFjwGM9 192.168.18.50 62277 162.219.2.166 443 - - - tcp SSL::Weak_Key DH key
length of 1024 bits is smaller certificate key length of 2048 bits - 192.168.18.50 162.219.2.166 443 - -
Notice::ACTION_LOG 86400.000000 F - - - - -
1398558136.542637 CHhAvVGS1DHFjwGM9 192.168.18.50 62277 162.219.2.166 443 - - - tcp SSL::Weak_Key Host
uses weak certificate with 2048 bit key - 192.168.18.50 162.219.2.166 443 - - Notice::ACTION_LOG 86400.000000 F - - - - -
-
#close 2017-12-21-02-31-09
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-31-10
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1397165496.713940 CHhAvVGS1DHFjwGM9 192.168.4.149 59062 91.227.4.92 443 - - - tcp SSL::Old_Version Host
uses protocol version SSLv2 which is lower than the safe minimum TLSv10 - 192.168.4.149 91.227.4.92 443 - -
Notice::ACTION_LOG 86400.000000 F - - - - -
#close 2017-12-21-02-31-10
#separator \x09
#set_separator ,
```



```

#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-31-11
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1170717505.734145 CHhAvVGS1DHFjwGM9 192.150.187.164 58868 194.127.84.106 443 - - - tcp SSL::Weak_Cipher
Host established connection using unsafe cipher suite TLS_RSA_WITH_RC4_128_MD5 - 192.150.187.164
194.127.84.106 443 - - Notice::ACTION_LOG 86400.000000 F - - - -
1170717505.934612 CHhAvVGS1DHFjwGM9 192.150.187.164 58868 194.127.84.106 443 - - - tcp SSL::Weak_Key
Host uses weak certificate with 1024 bit key - 192.150.187.164 194.127.84.106 443 - - Notice::ACTION_LOG
86400.000000 F - - - -
#close 2017-12-21-02-31-11
@load protocols/ssl/expiring-certs

const watched_servers: set[addr] = {
    87.98.220.10,
} &redef;

# Site::local_nets usually isn't something you need to modify if
# BroControl automatically sets it up from networks.cfg. It's
# shown here for completeness.
redef Site::local_nets += {
    87.98.0.0/16,
};

hook Notice::policy(n: Notice::Info)
{
    if ( n$note != SSL::Certificate_Expired )
        return;

    if ( n$id$resp_h !in watched_servers )
        return;

    add n$actions[Notice::ACTION_EMAIL];
}
### Allows configuration of a pager email address to which notices can be sent.

@load ../main

module Notice;

export {
    redef enum Action += {
        ## Indicates that the notice should be sent to the pager email

```

```

## address configured in the :bro:id:`Notice::mail_page_dest`
## variable.
ACTION_PAGE
};

## Email address to send notices with the :bro:enum:`Notice::ACTION_PAGE`
## action.
option mail_page_dest = "";
}

hook notice(n: Notice::Info) &priority=-5
{
  if ( ACTION_PAGE in n$actions )
    email_notice_to(n, mail_page_dest, F);
}
# @TEST-EXEC: bro -C -r $TRACES/web.trace %INPUT
# @TEST-EXEC: btest-diff alarm-mail.txt

hook Notice::policy(n: Notice::Info) &priority=1
{
  add n$actions[Notice::ACTION_ALARM];
}

redef Notice::force_email_summaries = T;

redef enum Notice::Type += {
  Test_Notice,
};

event connection_established(c: connection)
{
  NOTICE([$note=Test_Notice, $conn=c, $msg="test", $identifier="static"]);
}
# @TEST-EXEC: bro -b %INPUT
# The "Test_Notice" should be logged twice
# @TEST-EXEC: test `grep Test_Notice notice.log | wc -l` -eq 2

@load base/frameworks/notice

redef enum Notice::Type += {
  Test_Notice,
};

redef Notice::not_suppressed_types += { Test_Notice };

# The second notice needs to be scheduled due to how the notice framework
# uses the event queue.

```

```

event second_notice()
{
NOTICE([$note=Test_Notice, $msg="another test", $identifier="static"]);
}

event bro_init()
{
NOTICE([$note=Test_Notice, $msg="test", $identifier="static"]);
schedule 1msec { second_notice() };
}
# @TEST-EXEC: bro -b %INPUT
# @TEST-EXEC: btest-diff notice.log

@load base/frameworks/notice

redef enum Notice::Type += {
Test_Notice,
};

# The second notice needs to be scheduled due to how the notice framework
# uses the event queue.

event second_notice()
{
NOTICE([$note=Test_Notice, $msg="another test", $identifier="static"]);
}

event bro_init()
{
NOTICE([$note=Test_Notice, $msg="test", $identifier="static"]);
schedule 1msec { second_notice() };
}
# @TEST-SERIALIZE: comm
#
# @TEST-EXEC: btest-bg-run manager-1 BROPATH=$BROPATH:.. CLUSTER_NODE=manager-1 bro %INPUT
# @TEST-EXEC: btest-bg-run proxy-1 BROPATH=$BROPATH:.. CLUSTER_NODE=proxy-1 bro %INPUT
# @TEST-EXEC: btest-bg-run worker-1 BROPATH=$BROPATH:.. CLUSTER_NODE=worker-1 bro %INPUT
# @TEST-EXEC: btest-bg-wait 20
# @TEST-EXEC: btest-diff manager-1/notice.log

@TEST-START-FILE cluster-layout.bro
redef Cluster::nodes = {
["manager-1"] = [$node_type=Cluster::MANAGER, $ip=127.0.0.1, $p=27757/tcp],
["proxy-1"] = [$node_type=Cluster::PROXY, $ip=127.0.0.1, $p=27758/tcp, $manager="manager-1"],
["worker-1"] = [$node_type=Cluster::WORKER, $ip=127.0.0.1, $p=27760/tcp, $manager="manager-1",
$interface="eth0"],
};
@TEST-END-FILE

```

```

redef Log::default_rotation_interval = 0secs;

redef enum Notice::Type += {
  Test_Notice,
};

event Cluster::node_down(name: string, id: string)
{
  terminate();
}

event delayed_notice()
{
  if ( Cluster::node == "worker-1" )
    NOTICE([$note=Test_Notice, $msg="test notice!"]);
}

event ready()
{
  schedule 1secs { delayed_notice() };
}

@if ( Cluster::local_node_type() == Cluster::MANAGER )

global peer_count = 0;

event Cluster::node_up(name: string, id: string)
{
  peer_count = peer_count + 1;

  if ( peer_count == 2 )
    Broker::publish(Cluster::worker_topic, ready);
}

event Notice::log_notice(rec: Notice::Info)
{
  terminate();
}

@endif

```

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```

@TEST-EXEC: btest-rst-cmd bro -r ${TRACES}/tls/tls-expired-cert.trace ${DOC_ROOT}/quickstart/conditional-notice.bro
@TEST-EXEC: btest-rst-cmd cat notice.log
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-30-24
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1397169549.882425 CHhAvVGS1DHFjwGM9 192.168.4.149 59676 107.170.241.107 443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack Heartbeat before ciphertext. Probable attack or scan. Length: 32, is_orig: 1 -
192.168.4.149 107.170.241.107 443 32 - Notice::ACTION_LOG 3600.000000 F - - - -
1397169549.882425 CHhAvVGS1DHFjwGM9 192.168.4.149 59676 107.170.241.107 443 - - - tcp
Heartbleed::SSL_Heartbeat_Odd_Length Heartbeat message smaller than minimum required length. Probable attack.
Message length: 32. Required length: 48. Cipher: TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA. Cipher match:
/^?(_256_CBC_SHA)$$/ - 192.168.4.149 107.170.241.107 443 32 - Notice::ACTION_LOG 3600.000000 F - - - -
1397169549.895057 CHhAvVGS1DHFjwGM9 192.168.4.149 59676 107.170.241.107 443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack_Success An encrypted TLS heartbleed attack was probably detected! First
packet client record length 32, first packet server record length 16416. Time: 0.035413 - 192.168.4.149
107.170.241.107 443 - - Notice::ACTION_LOG 3600.000000 F - - - -
#close 2017-12-21-02-30-24
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-29-27
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1513823367.386212 - - - - - Software::Vulnerable_Version 1.2.3.4 is running Java 1.7.0.15 which is vulnerable. Java
1.7.0.15 1.2.3.4 - - - - Notice::ACTION_LOG 3600.000000 F - - - -
1513823367.386212 - - - - - Software::Vulnerable_Version 1.2.3.5 is running Java 1.6.0.43 which is vulnerable. Java
1.6.0.43 1.2.3.5 - - - - Notice::ACTION_LOG 3600.000000 F - - - -
#close 2017-12-21-02-29-27
### Notice extension that mails out a pretty-printed version of alarm.log
### in regular intervals, formatted for better human readability. If activated,
### that replaces the default summary mail having the raw log output.

@load base/frameworks/cluster
@load ../main

```

```

module Notice;

export {
  ## Activate pretty-printed alarm summaries.
  const pretty_print_alarms = T &redef;

  ## Address to send the pretty-printed reports to. Default if not set is
  ## :bro:id:`Notice::mail_dest`.
  ##
  ## Note that this is overridden by the BroControl MailAlarmsTo option.
  const mail_dest_pretty_printed = "" &redef;
  ## If an address from one of these networks is reported, we mark
  ## the entry with an additional quote symbol (i.e., ">"). Many MUAs
  ## then highlight such lines differently.
  global flag_nets: set[subnet] &redef;

  ## Function that renders a single alarm. Can be overridden.
  global pretty_print_alarm: function(out: file, n: Info) &redef;

  ## Force generating mail file, even if reading from traces or no mail
  ## destination is defined. This is mainly for testing.
  global force_email_summaries = F &redef;
}

# We maintain an old-style file recording the pretty-printed alarms.
const pp_alarms_name = "alarm-mail.txt";
global pp_alarms: file;
global pp_alarms_open: bool = F;

# Returns True if pretty-printed alarm summaries are activated.
function want_pp() : bool
{
  if ( force_email_summaries )
    return T;

  return (pretty_print_alarms && ! reading_traces()
    && (mail_dest != "" || mail_dest_pretty_printed != ""));
}

# Opens and initializes the output file.
function pp_open()
{
  if ( pp_alarms_open )
    return;

  pp_alarms_open = T;
  pp_alarms = open(pp_alarms_name);
}

```



```

}

# Closes and mails out the current output file.
function pp_send(rinfo: Log::RotationInfo)
{
if ( ! pp_alarms_open )
return;

write_file(pp_alarms, "\n\n--\n[Automatically generated]\n\n");
close(pp_alarms);
pp_alarms_open = F;

local from = strftime("%H:%M:%S", rinfo$open);
local to = strftime("%H:%M:%S", rinfo$close);
local subject = fmt("Alarm summary from %s-%s", from, to);
local dest = mail_dest_pretty_printed != "" ? mail_dest_pretty_printed
: mail_dest;

if ( dest == "" )
# No mail destination configured, just leave the file alone. This is mainly for
# testing.
return;

local headers = email_headers(subject, dest);

local header_name = pp_alarms_name + ".tmp";
local header = open(header_name);
write_file(header, headers + "\n");
close(header);

system(fmt("/bin/cat %s %s | %s -t -oi && /bin/rm -f %s %s",
header_name, pp_alarms_name, sendmail, header_name, pp_alarms_name));
}

# Postprocessor function that triggers the email.
function pp_postprocessor(info: Log::RotationInfo): bool
{
if ( want_pp() )
pp_send(info);

return T;
}

event bro_init()
{
if ( ! want_pp() )
return;
}

```

```

# This replaces the standard non-pretty-printing filter.
Log::add_filter(Notice::ALARM_LOG,
  [$name="alarm-mail", $writer=Log::WRITER_NONE,
  $interv=Log::default_mail_alarms_interval,
  $postprocessor=pp_postprocessor]);
}

hook notice(n: Notice::Info) &priority=-5
{
  if ( ! want_pp() )
    return;

  if ( ACTION_ALARM !in n$actions )
    return;

  if ( ! pp_alarms_open )
    pp_open();

  pretty_print_alarm(pp_alarms, n);
}

function do_msg(out: file, n: Info, line1: string, line2: string, line3: string, host1: addr, name1: string, host2: addr,
name2: string)
{
  local country = "";
  @ifdef ( Notice::ACTION_ADD_GEODATA ) # Make tests happy, cyclic dependency.
  if ( n?$remote_location && n$remote_location?$country_code )
    country = fmt(" (remote location %s)", n$remote_location$country_code);
  @endif

  line1 = cat(line1, country);

  local resolved = "";

  if ( host1 != 0.0.0.0 )
    resolved = fmt("%s # %s = %s", resolved, host1, name1);

  if ( host2 != 0.0.0.0 )
    resolved = fmt("%s %s = %s", resolved, host2, name2);

  print out, line1;
  print out, line2;
  if ( line3 != "" )
    print out, line3;
  if ( resolved != "" )
    print out, resolved;
  print out, "";
}

```

```

# Default pretty-printer.
function pretty_print_alarm(out: file, n: Info)
{
    local pdescr = "";

    @if ( Cluster::is_enabled() )
    pdescr = "local";

    if ( n?$peer_descr )
    pdescr = n$peer_descr;
    else if ( n?$peer_name )
    pdescr = n$peer_name;

    pdescr = fmt("<%s> ", pdescr);
    @endif

    local msg = fmt( "%s%s", pdescr, n$msg );

    local who = "";
    local h1 = 0.0.0.0;
    local h2 = 0.0.0.0;

    local orig_p = "";
    local resp_p = "";

    if ( n?$id )
    {
        h1 = n$orig_h;
        h2 = n$resp_h;
        who = fmt("%s:%s -> %s:%s", h1, n$orig_p, h2, n$resp_p);
    }
    else if ( n?$src && n?$dst )
    {
        h1 = n$src;
        h2 = n$dst;
        who = fmt("%s -> %s", h1, h2);
    }
    else if ( n?$src )
    {
        h1 = n$src;
        who = fmt("%s%s", h1, (n?$p ? fmt(":%s", n$p) : ""));
    }

    if ( n?$uid )
    who = fmt("%s (uid %s)", who, n$uid );

    local flag = (h1 in flag_nets || h2 in flag_nets);

```

```
local line1 = fmt(">%s %D %s %s", (flag ? ">" : " "), network_time(), n$note, who);
local line2 = fmt(" %s", msg);
local line3 = n?$sub ? fmt(" %s", n$sub) : "";
```

```
if ( h1 == 0.0.0.0 )
{
do_msg(out, n, line1, line2, line3, h1, "", h2, "");
return;
}
```

```
if ( reading_traces() )
{
do_msg(out, n, line1, line2, line3, h1, "<skipped>", h2, "<skipped>");
return;
}
```

```
when ( local h1name = lookup_addr(h1) )
{
if ( h2 == 0.0.0.0 )
{
do_msg(out, n, line1, line2, line3, h1, h1name, h2, "");
return;
}
```

```
when ( local h2name = lookup_addr(h2) )
{
do_msg(out, n, line1, line2, line3, h1, h1name, h2, h2name);
return;
}
```

```
timeout 5secs
{
do_msg(out, n, line1, line2, line3, h1, h1name, h2, "(dns timeout)");
return;
}
```

```
timeout 5secs
{
if ( h2 == 0.0.0.0 )
{
do_msg(out, n, line1, line2, line3, h1, "(dns timeout)", h2, "");
return;
}
```

```
when ( local h2name_ = lookup_addr(h2) )
{
do_msg(out, n, line1, line2, line3, h1, "(dns timeout)", h2, h2name_);
```

```

return;
}
timeout 5secs
{
do_msg(out, n, line1, line2, line3, h1, "(dns timeout)", h2, "(dns timeout)");
return;
}
}
}

```

This script adds geographic location data to notices for the "remote" host in a connection. It does make the assumption that one of the addresses in a connection is "local" and one is "remote" which is probably a safe assumption to make in most cases. If both addresses are remote, it will use the \$src address.

```

@load ../main
@load base/frameworks/notice
@load base/utils/site

```

```

module Notice;

```

```

export {
  redef enum Action += {
    ## Indicates that the notice should have geodata added for the
    ## "remote" host. `:bro:id:Site::local_nets` must be defined
    ## in order for this to work.
    ACTION_ADD_GEODATA
  };

```

```

  redef record Info += {
    ## If GeoIP support is built in, notices can have geographic
    ## information attached to them.
    remote_location: geo_location &log &optional;
  };

```

```

  ## Notice types which should have the "remote" location looked up.
  ## If GeoIP support is not built in, this does nothing.
  option lookup_location_types: set[Notice::Type] = {};
}

```

```

hook policy(n: Notice::Info) &priority=10
{
  if ( n$note in Notice::lookup_location_types )
    add n$actions[ACTION_ADD_GEODATA];
}

```

```

# This is handled at a high priority in case other notice handlers
# want to use the data.

```

```

hook notice(n: Notice::Info) &priority=10
{
if ( ACTION_ADD_GEODATA in n$actions &&
|Site::local_nets| > 0 &&
! n?$remote_location )
{
if ( n?$src && ! Site::is_local_addr(n$src) )
n$remote_location = lookup_location(n$src);
else if ( n?$dst && ! Site::is_local_addr(n$dst) )
n$remote_location = lookup_location(n$dst);
}
}
# @TEST-SERIALIZE: comm
#
# @TEST-EXEC: btest-bg-run manager-1 BROPATH=$BROPATH:.. CLUSTER_NODE=manager-1 bro %INPUT
# @TEST-EXEC: btest-bg-run proxy-1 BROPATH=$BROPATH:.. CLUSTER_NODE=proxy-1 bro %INPUT
# @TEST-EXEC: btest-bg-run worker-1 BROPATH=$BROPATH:.. CLUSTER_NODE=worker-1 bro %INPUT
# @TEST-EXEC: btest-bg-run worker-2 BROPATH=$BROPATH:.. CLUSTER_NODE=worker-2 bro %INPUT
# @TEST-EXEC: btest-bg-wait 20
# @TEST-EXEC: btest-diff manager-1/notice.log

@TEST-START-FILE cluster-layout.bro
redef Cluster::nodes = {
["manager-1"] = [$node_type=Cluster::MANAGER, $ip=127.0.0.1, $p=27757/tcp],
["proxy-1"] = [$node_type=Cluster::PROXY, $ip=127.0.0.1, $p=27758/tcp, $manager="manager-1"],
["worker-1"] = [$node_type=Cluster::WORKER, $ip=127.0.0.1, $p=27760/tcp, $manager="manager-1"],
["worker-2"] = [$node_type=Cluster::WORKER, $ip=127.0.0.1, $p=27761/tcp, $manager="manager-1"],
};
@TEST-END-FILE

redef Log::default_rotation_interval = 0secs;

redef enum Notice::Type += {
Test_Notice,
};

event Cluster::node_down(name: string, id: string)
{
terminate();
}

event delayed_notice()
{
NOTICE([$note=Test_Notice,
$msg="test notice!",
$identifier="this identifier is static"]);
}

```

```

event ready()
{
if ( Cluster::node == "worker-1" )
    schedule 4secs { delayed_notice() };
if ( Cluster::node == "worker-2" )
    schedule 1secs { delayed_notice() };
}

event Notice::suppressed(n: Notice::Info)
{
if ( Cluster::node == "worker-1" )
    terminate();
}

@if ( Cluster::local_node_type() == Cluster::MANAGER )

global peer_count = 0;

event Cluster::node_up(name: string, id: string)
{
peer_count = peer_count + 1;

if ( peer_count == 3 )
    Broker::publish(Cluster::worker_topic, ready);
}

@endif
### This script extends the built in notice code to implement the IP address
### dropping functionality.

@load ../main
@load base/frameworks/netcontrol

module Notice;

export {
    redef enum Action += {
        ## Drops the address via :bro:see:`NetControl::drop_address_catch_release`.
        ACTION_DROP
    };

    redef record Info += {
        ## Indicate if the $src IP address was dropped and denied
        ## network access.
        dropped: bool    &log &default=F;
    };
}

```

```

hook notice(n: Notice::Info) &priority=-5
{
if ( ACTION_DROP in n$actions )
{
local ci = NetControl::get_catch_release_info(n$src);
if ( ci$watch_until == double_to_time(0) )
{
# we have not seen this one yet. Drop it.
local addl = n?$msg ? fmt("ACTION_DROP: %s", n?$msg) : "ACTION_DROP";
local res = NetControl::drop_address_catch_release(n$src, addl);
n$dropped = res$watch_until != double_to_time(0);
}
}
}
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-20-23-33-05
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1513812785.342226 - - - - - Test_Notice test - - - - - Notice::ACTION_LOG 3600.000000 F - - - - -
#close 2017-12-20-23-33-05
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-30-25
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1398954957.074664 CHhAvVGS1DHFjwGM9 192.168.4.149 54233 162.219.2.166 4443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack Heartbeat before ciphertext. Probable attack or scan. Length: 32, is_orig: 1 -
192.168.4.149 162.219.2.166 4443 32 - Notice::ACTION_LOG 3600.000000 F - - - - -
1398954957.074664 CHhAvVGS1DHFjwGM9 192.168.4.149 54233 162.219.2.166 4443 - - - tcp
Heartbleed::SSL_Heartbeat_Odd_Length Heartbeat message smaller than minimum required length. Probable attack.
Message length: 32. Required length: 48. Cipher: TLS_DHE_RSA_WITH_CAMELLIA_256_CBC_SHA. Cipher
match: /^?(256_CBC_SHA)$?/ - 192.168.4.149 162.219.2.166 4443 32 - Notice::ACTION_LOG 3600.000000 F - - - - -
1398954957.145535 CHhAvVGS1DHFjwGM9 192.168.4.149 54233 162.219.2.166 4443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack_Success An encrypted TLS heartbleed attack was probably detected! First
packet client record length 32, first packet server record length 48. Time: 0.351035 - 192.168.4.149 162.219.2.166

```


=====

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#separator \x09

#set_separator ,

#empty_field (empty)

#unset_field -

#path notice

#open 2017-12-21-02-30-23

#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_desc actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city remote_location.latitude remote_location.longitude

```

#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1400106542.810248 CHhAvVGS1DHFjwGM9 54.221.166.250 56323 162.219.2.166 443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack Heartbeat before ciphertext. Probable attack or scan. Length: 86, is_orig: 1 -
54.221.166.250 162.219.2.166 443 86 - Notice::ACTION_LOG 3600.000000 F - - - -
#close 2017-12-21-02-30-23
.. rst-class:: btest-cmd

.. code-block:: none
:linenos:
:emphasize-lines: 1,1

# bro -r tls/tls-expired-cert.trace conditional-notice.bro

.. rst-class:: btest-cmd

.. code-block:: none
:linenos:
:emphasize-lines: 1,1

# cat notice.log
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-23-46
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_desc
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum]
interval bool string string string double double
1394745603.293028 CHhAvVGS1DHFjwGM9 192.168.4.149 60539 87.98.220.10 443 F1fX1R2cDOzsvg17ye - - tcp
SSL::Certificate_Expired Certificate CN=www.spidh.org,OU=COMODO SSL,OU=Domain Control Validated
expired at 2014-03-04-23:59:59.000000000 - 192.168.4.149 87.98.220.10 443 - -
Notice::ACTION_EMAIL,Notice::ACTION_LOG 86400.000000 F - - - -
#close 2017-12-21-02-23-46
##! Adds a new notice action type which can be used to email notices
##! to the administrators of a particular address space as set by
##! :bro:id:`Site::local_admins` if the notice contains a source
##! or destination address that lies within their space.

@load ../main
@load base/utils/site

module Notice;

export {

```

```

redef enum Action += {
  ## Indicate that the generated email should be addressed to the
  ## appropriate email addresses as found by the
  ## :bro:id:`Site::get_emails` function based on the relevant
  ## address or addresses indicated in the notice.
  ACTION_EMAIL_ADMIN
};
}

hook notice(n: Notice::Info) &priority=-5
{
  if ( |Site::local_admins| > 0 &&
      ACTION_EMAIL_ADMIN in n$actions )
  {
    local email = "";
    if ( n?$src && |Site::get_emails(n$src)| > 0 )
      email = fmt("%s, %s", email, Site::get_emails(n$src));
    if ( n?$dst && |Site::get_emails(n$dst)| > 0 )
      email = fmt("%s, %s", email, Site::get_emails(n$dst));

    if ( email != "" )
      email_notice_to(n, email, T);
  }
}

##! This is the notice framework which enables Bro to "notice" things which
##! are odd or potentially bad. Decisions of the meaning of various notices
##! need to be done per site because Bro does not ship with assumptions about
##! what is bad activity for sites. More extensive documentation about using
##! the notice framework can be found in :doc:`/frameworks/notice`.

@load base/frameworks/cluster

module Notice;

export {
  redef enum Log::ID += {
    ## This is the primary logging stream for notices.
    LOG,
    ## This is the alarm stream.
    ALARM_LOG,
  };

  ## Scripts creating new notices need to redef this enum to add their
  ## own specific notice types which would then get used when they call
  ## the :bro:id:`NOTICE` function. The convention is to give a general
  ## category along with the specific notice separating words with
  ## underscores and using leading capitals on each word except for
  ## abbreviations which are kept in all capitals. For example,

```

```

## SSH::Password_Guessing is for hosts that have crossed a threshold of
## failed SSH logins.
type Type: enum {
  ## Notice reporting a count of how often a notice occurred.
  Tally,
};

## These are values representing actions that can be taken with notices.
type Action: enum {
  ## Indicates that there is no action to be taken.
  ACTION_NONE,
  ## Indicates that the notice should be sent to the notice
  ## logging stream.
  ACTION_LOG,
  ## Indicates that the notice should be sent to the email
  ## address(es) configured in the :bro:id:`Notice::mail_dest`
  ## variable.
  ACTION_EMAIL,
  ## Indicates that the notice should be alarmed. A readable
  ## ASCII version of the alarm log is emailed in bulk to the
  ## address(es) configured in :bro:id:`Notice::mail_dest`.
  ACTION_ALARM,
};

## Type that represents a set of actions.
type ActionSet: set[Notice::Action];

## The notice framework is able to do automatic notice suppression by
## utilizing the *identifier* field in :bro:type:`Notice::Info` records.
## Set this to "0secs" to completely disable automated notice
## suppression.
option default_suppression_interval = 1hrs;

## The record type that is used for representing and logging notices.
type Info: record {
  ## An absolute time indicating when the notice occurred,
  ## defaults to the current network time.
  ts:      time      &log &optional;

  ## A connection UID which uniquely identifies the endpoints
  ## concerned with the notice.
  uid:     string    &log &optional;

  ## A connection 4-tuple identifying the endpoints concerned
  ## with the notice.
  id:     conn_id    &log &optional;

  ## A shorthand way of giving the uid and id to a notice. The

```

```

## reference to the actual connection will be deleted after
## applying the notice policy.
conn:      connection  &optional;
## A shorthand way of giving the uid and id to a notice. The
## reference to the actual connection will be deleted after
## applying the notice policy.
iconn:     icmp_conn   &optional;

## A file record if the notice is related to a file. The
## reference to the actual fa_file record will be deleted after
## applying the notice policy.
f:         fa_file     &optional;

## A file unique ID if this notice is related to a file. If
## the *f* field is provided, this will be automatically filled
## out.
fuid:      string      &log &optional;

## A mime type if the notice is related to a file. If the *f*
## field is provided, this will be automatically filled out.
file_mime_type: string  &log &optional;

## Frequently files can be "described" to give a bit more
## context. This field will typically be automatically filled
## out from an fa_file record. For example, if a notice was
## related to a file over HTTP, the URL of the request would
## be shown.
file_desc: string      &log &optional;

## The transport protocol. Filled automatically when either
## *conn*, *iconn* or *p* is specified.
proto:     transport_proto &log &optional;

## The :bro:type:`Notice::Type` of the notice.
note:      Type         &log;
## The human readable message for the notice.
msg:       string       &log &optional;
## The human readable sub-message.
sub:       string       &log &optional;

## Source address, if we don't have a :bro:type:`conn_id`.
src:       addr         &log &optional;
## Destination address.
dst:       addr         &log &optional;
## Associated port, if we don't have a :bro:type:`conn_id`.
p:         port         &log &optional;
## Associated count, or perhaps a status code.
n:         count        &log &optional;

```

```

## Name of remote peer that raised this notice.
peer_name:  string    &optional;
## Textual description for the peer that raised this notice,
## including name, host address and port.
peer_descr:  string    &log &optional;

## The actions which have been applied to this notice.
actions:  ActionSet    &log &default=ActionSet();

## By adding chunks of text into this element, other scripts
## can expand on notices that are being emailed. The normal
## way to add text is to extend the vector by handling the
## :bro:id:`Notice::notice` event and modifying the notice in
## place.
email_body_sections:  vector of string &optional;

## Adding a string "token" to this set will cause the notice
## framework's built-in emailing functionality to delay sending
## the email until either the token has been removed or the
## email has been delayed for :bro:id:`Notice::max_email_delay`.
email_delay_tokens:  set[string] &optional;

## This field is to be provided when a notice is generated for
## the purpose of deduplicating notices. The identifier string
## should be unique for a single instance of the notice. This
## field should be filled out in almost all cases when
## generating notices to define when a notice is conceptually
## a duplicate of a previous notice.
##
## For example, an SSL certificate that is going to expire soon
## should always have the same identifier no matter the client
## IP address that connected and resulted in the certificate
## being exposed. In this case, the resp_h, resp_p, and hash
## of the certificate would be used to create this value. The
## hash of the cert is included because servers can return
## multiple certificates on the same port.
##
## Another example might be a host downloading a file which
## triggered a notice because the MD5 sum of the file it
## downloaded was known by some set of intelligence. In that
## case, the orig_h (client) and MD5 sum would be used in this
## field to dedup because if the same file is downloaded over
## and over again you really only want to know about it a
## single time. This makes it possible to send those notices
## to email without worrying so much about sending thousands
## of emails.
identifier:  string    &optional;

```

```

## This field indicates the length of time that this
## unique notice should be suppressed.
suppress_for:    interval    &log &default=default_suppression_interval;
};

## Ignored notice types.
option ignored_types: set[Notice::Type] = {};
## Emailed notice types.
option emailed_types: set[Notice::Type] = {};
## Alarmed notice types.
option alarmed_types: set[Notice::Type] = {};
## Types that should be suppressed for the default suppression interval.
option not_suppressed_types: set[Notice::Type] = {};
## This table can be used as a shorthand way to modify suppression
## intervals for entire notice types.
const type_suppression_intervals: table[Notice::Type] of interval = {} &redef;

## The hook to modify notice handling.
global policy: hook(n: Notice::Info);

## Local system sendmail program.
##
## Note that this is overridden by the BroControl SendMail option.
option sendmail      = "/usr/sbin/sendmail";
## Email address to send notices with the
## :bro:enum:`Notice::ACTION_EMAIL` action or to send bulk alarm logs
## on rotation with :bro:enum:`Notice::ACTION_ALARM`.
##
## Note that this is overridden by the BroControl MailTo option.
const mail_dest      = ""      &redef;

## Address that emails will be from.
##
## Note that this is overridden by the BroControl MailFrom option.
option mail_from      = "Big Brother <bro@localhost>";
## Reply-to address used in outbound email.
option reply_to       = "";
## Text string prefixed to the subject of all emails sent out.
##
## Note that this is overridden by the BroControl MailSubjectPrefix
## option.
option mail_subject_prefix = "[Bro]";
## The maximum amount of time a plugin can delay email from being sent.
const max_email_delay = 15secs &redef;

## Contains a portion of :bro:see:`fa_file` that's also contained in
## :bro:see:`Notice::Info`.

```



```

type FileInfo: record {
  fuid: string;      ##< File UID.
  desc: string;     ##< File description from e.g.
                    ##< :bro:see:`Files::describe`.
  mime: string &optional; ##< Strongest mime type match for file.
  cid: conn_id &optional; ##< Connection tuple over which file is sent.
  cuid: string &optional; ##< Connection UID over which file is sent.
};

## Creates a record containing a subset of a full :bro:see:`fa_file` record.
##
## f: record containing metadata about a file.
##
## Returns: record containing a subset of fields copied from *f*.
global create_file_info: function(f: fa_file): Notice::FileInfo;

## Populates file-related fields in a notice info record.
##
## f: record containing metadata about a file.
##
## n: a notice record that needs file-related fields populated.
global populate_file_info: function(f: fa_file, n: Notice::Info);

## Populates file-related fields in a notice info record.
##
## fi: record containing metadata about a file.
##
## n: a notice record that needs file-related fields populated.
global populate_file_info2: function(fi: Notice::FileInfo, n: Notice::Info);

## A log postprocessing function that implements emailing the contents
## of a log upon rotation to any configured :bro:id:`Notice::mail_dest`.
## The rotated log is removed upon being sent.
##
## info: A record containing the rotated log file information.
##
## Returns: True.
global log_mailing_postprocessor: function(info: Log::RotationInfo): bool;

## This is the event that is called as the entry point to the
## notice framework by the global :bro:id:`NOTICE` function. By the
## time this event is generated, default values have already been
## filled out in the :bro:type:`Notice::Info` record and the notice
## policy has also been applied.
##
## n: The record containing notice data.
global notice: hook(n: Info);

```

```

## This event is generated when a notice begins to be suppressed.
##
## ts: time indicating then when the notice to be suppressed occurred.
##
## suppress_for: length of time that this notice should be suppressed.
##
## note: The :bro:type:`Notice::Type` of the notice.
##
## identifier: The identifier string of the notice that should be suppressed.
global begin_suppression: event(ts: time, suppress_for: interval, note: Type, identifier: string);

## A function to determine if an event is supposed to be suppressed.
##
## n: The record containing the notice in question.
global is_being_suppressed: function(n: Notice::Info): bool;

## This event is generated on each occurrence of an event being
## suppressed.
##
## n: The record containing notice data regarding the notice type
## being suppressed.
global suppressed: event(n: Notice::Info);

## Call this function to send a notice in an email. It is already used
## by default with the built in :bro:enum:`Notice::ACTION_EMAIL` and
## :bro:enum:`Notice::ACTION_PAGE` actions.
##
## n: The record of notice data to email.
##
## dest: The intended recipient of the notice email.
##
## extend: Whether to extend the email using the
## ``email_body_sections`` field of *n*.
global email_notice_to: function(n: Info, dest: string, extend: bool);

## Constructs mail headers to which an email body can be appended for
## sending with sendmail.
##
## subject_desc: a subject string to use for the mail.
##
## dest: recipient string to use for the mail.
##
## Returns: a string of mail headers to which an email body can be
## appended.
global email_headers: function(subject_desc: string, dest: string): string;

## This event can be handled to access the :bro:type:`Notice::Info`
## record as it is sent on to the logging framework.

```

```

##
## rec: The record containing notice data before it is logged.
global log_notice: event(rec: Info);

## This is an internal wrapper for the global :bro:id:`NOTICE`
## function; disregard.
##
## n: The record of notice data.
global internal_NOTICE: function(n: Notice::Info);

## This is the event used to transport notices on the cluster.
##
## n: The notice information to be sent to the cluster manager for
## further processing.
global cluster_notice: event(n: Notice::Info);
}

module GLOBAL;

function NOTICE(n: Notice::Info)
{
if ( Notice::is_being_suppressed(n) )
return;

@if ( Cluster::is_enabled() )
if ( Cluster::local_node_type() == Cluster::MANAGER )
Notice::internal_NOTICE(n);
else
{
n$peer_name = n$peer_descr = Cluster::node;
Broker::publish(Cluster::manager_topic, Notice::cluster_notice, n);
}
@else
Notice::internal_NOTICE(n);
@endif
}

module Notice;

# This is used as a hack to implement per-item expiration intervals.
function per_notice_suppression_interval(t: table[Notice::Type, string] of time, idx: any): interval
{
local n: Notice::Type;
local s: string;
[n,s] = idx;

local suppress_time = t[n,s] - network_time();
if ( suppress_time < 0secs )

```

```

suppress_time = 0secs;

return suppress_time;
}

# This is the internally maintained notice suppression table. It's
# indexed on the Notice::Type and the $identifier field from the notice.
global suppressing: table[Type, string] of time = {}
    &create_expire=0secs
    &expire_func=per_notice_suppression_interval;

function log_mailing_postprocessor(info: Log::RotationInfo): bool
{
if ( ! reading_traces() && mail_dest != "" )
{
local headers = email_headers(fmt("Log Contents: %s", info$fname),
    mail_dest);
local tmpfilename = fmt("%s.mailheaders.tmp", info$fname);
local tmpfile = open(tmpfilename);
write_file(tmpfile, headers);
close(tmpfile);
system(fmt("/bin/cat %s %s | %s -t -oi && /bin/rm %s %s",
    tmpfilename, info$fname, sendmail, tmpfilename, info$fname));
}
return T;
}

event bro_init() &priority=5
{
Log::create_stream(Notice::LOG, [$columns=Info, $sev=log_notice, $path="notice"]);

Log::create_stream(Notice::ALARM_LOG, [$columns=Notice::Info, $path="notice_alarm"]);
# If Bro is configured for mailing notices, set up mailing for alarms.
# Make sure that this alarm log is also output as text so that it can
# be packaged up and emailed later.
if ( ! reading_traces() && mail_dest != "" )
Log::add_filter(Notice::ALARM_LOG,
    [$name="alarm-mail", $path="alarm-mail", $writer=Log::WRITER_ASCII,
    $interv=24hrs, $postprocessor=log_mailing_postprocessor]);
}

function email_headers(subject_desc: string, dest: string): string
{
local header_text = string_cat(
    "From: ", mail_from, "\n",
    "Subject: ", mail_subject_prefix, " ", subject_desc, "\n",
    "To: ", dest, "\n",
    "User-Agent: Bro-IDS/", bro_version(), "\n");
}

```

```

if ( reply_to != "" )
    header_text = string_cat(header_text, "Reply-To: ", reply_to, "\n");
return header_text;
}

event delay_sending_email(n: Notice::Info, dest: string, extend: bool)
{
    email_notice_to(n, dest, extend);
}

function email_notice_to(n: Notice::Info, dest: string, extend: bool)
{
    if ( reading_traces() || dest == "" )
        return;

    if ( extend )
    {
        if ( |n$email_delay_tokens| > 0 )
        {
            # If we still are within the max_email_delay, keep delaying.
            if ( n$time + max_email_delay > network_time() )
            {
                schedule 1sec { delay_sending_email(n, dest, extend) };
                return;
            }
            else
            {
                Reporter::info(fmt("Notice email delay tokens weren't released in time (%s).", n$email_delay_tokens));
            }
        }
    }

    local email_text = email_headers(fmt("%s", n$note), dest);

    # First off, finish the headers and include the human readable messages
    # then leave a blank line after the message.
    email_text = string_cat(email_text, "\nMessage: ", n$msg, "\n");

    if ( n?$sub )
        email_text = string_cat(email_text, "Sub-message: ", n$sub, "\n");

    email_text = string_cat(email_text, "\n");

    # Add information about the file if it exists.
    if ( n?$file_desc )
        email_text = string_cat(email_text, "File Description: ", n$file_desc, "\n");

    if ( n?$file_mime_type )

```

```
email_text = string_cat(email_text, "File MIME Type: ", n$file_mime_type, "\n");
```

```
if ( n?$file_desc || n?$file_mime_type )  
email_text = string_cat(email_text, "\n");
```

```
# Next, add information about the connection if it exists.
```

```
if ( n?$id )  
{  
email_text = string_cat(email_text, "Connection: ",  
fmt("%s", n$id$orig_h), ":", fmt("%d", n$id$orig_p), " -> ",  
fmt("%s", n$id$resp_h), ":", fmt("%d", n$id$resp_p), "\n");  
if ( n?$uid )  
email_text = string_cat(email_text, "Connection uid: ", n$uid, "\n");  
}  
else if ( n?$src )  
email_text = string_cat(email_text, "Address: ", fmt("%s", n$src), "\n");
```

```
# Add the extended information if it's requested.
```

```
if ( extend )  
{  
email_text = string_cat(email_text, "\nEmail Extensions\n");  
email_text = string_cat(email_text, "-----\n");  
for ( i in n$email_body_sections )  
{  
email_text = string_cat(email_text, n$email_body_sections[i], "\n");  
}  
}
```

```
email_text = string_cat(email_text, "\n\n--\n[Automatically generated]\n\n");  
piped_exec(fmt("%s -t -oi", sendmail), email_text);  
}
```

```
hook Notice::policy(n: Notice::Info) &priority=10
```

```
{  
if ( n$note in Notice::ignored_types )  
break;  
  
if ( n$note in Notice::not_suppressed_types )  
n$suppress_for=0secs;  
if ( n$note in Notice::alarmed_types )  
add n$actions[ACTION_ALARM];  
if ( n$note in Notice::emailed_types )  
add n$actions[ACTION_EMAIL];
```

```
if ( n$note in Notice::type_suppression_intervals )  
n$suppress_for=Notice::type_suppression_intervals[n$note];
```

```
# Logging is a default action. It can be removed in a later hook if desired.
```

```

add n$actions[ACTION_LOG];
}

hook Notice::notice(n: Notice::Info) &priority=-5
{
if ( ACTION_EMAIL in n$actions )
    email_notice_to(n, mail_dest, T);
if ( ACTION_LOG in n$actions )
    Log::write(Notice::LOG, n);
if ( ACTION_ALARM in n$actions )
    Log::write(Notice::ALARM_LOG, n);

# Normally suppress further notices like this one unless directed not to.
# n$identifier *must* be specified for suppression to function at all.
if ( n?$identifier &&
    [n$note, n$identifier] !in suppressing &&
    n$suppress_for != 0secs )
    {
    event Notice::begin_suppression(n$ts, n$suppress_for, n$note, n$identifier);
    }
}

event Notice::begin_suppression(ts: time, suppress_for: interval, note: Type,
    identifier: string)
{
local suppress_until = ts + suppress_for;
suppressing[note, identifier] = suppress_until;
}

event bro_init()
{
if ( ! Cluster::is_enabled() )
    return;

Broker::auto_publish(Cluster::worker_topic, Notice::begin_suppression);
Broker::auto_publish(Cluster::proxy_topic, Notice::begin_suppression);
}

function is_being_suppressed(n: Notice::Info): bool
{
if ( n?$identifier && [n$note, n$identifier] in suppressing )
    {
    event Notice::suppressed(n);
    return T;
    }
else
    return F;
}

```

```

# Executes a script with all of the notice fields put into the
# new process' environment as "BRO_ARG_<field>" variables.
function execute_with_notice(cmd: string, n: Notice::Info)
{
# TODO: fix system calls
#local tgs = tags(n);
#system_env(cmd, tags);
}

function create_file_info(f: fa_file): Notice::FileInfo
{
local fi: Notice::FileInfo = Notice::FileInfo($fuid = f$id,
        $desc = Files::describe(f));

if ( f?$info && f$info?$mime_type )
fi$mime = f$info$mime_type;

if ( f?$conns && |f$conns| == 1 )
for ( id in f$conns )
{
fi$cid = id;
fi$cuid = f$conns[id]$uid;
}

return fi;
}

function populate_file_info(f: fa_file, n: Notice::Info)
{
populate_file_info2(create_file_info(f), n);
}

function populate_file_info2(fi: Notice::FileInfo, n: Notice::Info)
{
if ( ! n?$fuid )
n$fuid = fi$fuid;

if ( ! n?$file_mime_type && fi?$mime )
n$file_mime_type = fi$mime;

n$file_desc = fi$desc;
n$id = fi$cid;
n$suid = fi$cuid;
}

# This is run synchronously as a function before all of the other
# notice related functions and events. It also modifies the

```



```

# :bro:type:`Notice::Info` record in place.
function apply_policy(n: Notice::Info)
{
# Fill in some defaults.
if ( ! n?$ts )
n$ts = network_time();

if ( n?$f )
populate_file_info(n$f, n);

if ( n?$conn )
{
if ( ! n?$id )
n$id = n$conn$id;

if ( ! n?$uid )
n$uid = n$conn$uid;
}

if ( n?$id )
{
if ( ! n?$src )
n$src = n$id$orig_h;
if ( ! n?$dst )
n$dst = n$id$resp_h;
if ( ! n?$p )
n$p = n$id$resp_p;
}

if ( n?$p )
n$proto = get_port_transport_proto(n$p);

if ( n?$iconn )
{
n$proto = icmp;
if ( ! n?$src )
n$src = n$iconn$orig_h;
if ( ! n?$dst )
n$dst = n$iconn$resp_h;
}

if ( ! n?$email_body_sections )
n$email_body_sections = vector();
if ( ! n?$email_delay_tokens )
n$email_delay_tokens = set();

# Apply the hook based policy.
hook Notice::policy(n);

```

```
# Apply the suppression time after applying the policy so that policy
# items can give custom suppression intervals. If there is no
# suppression interval given yet, the default is applied.
if ( ! n?$suppress_for )
    n$suppress_for = default_suppression_interval;
```

```
# Delete the connection and file records if they're there so we
# aren't sending that to remote machines. It can cause problems
# due to the size of those records.
```

```
if ( n?$conn )
    delete n$conn;
if ( n?$iconn )
    delete n$iconn;
if ( n?$f )
    delete n$f;
}
```

```
function internal_NOTICE(n: Notice::Info)
```

```
{
# Fill out fields that might be empty and do the policy processing.
apply_policy(n);
```

```
# Generate the notice event with the notice.
```

```
hook Notice::notice(n);
}
```

```
event Notice::cluster_notice(n: Notice::Info)
```

```
{
NOTICE(n);
}
```

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```
#separator \x09
```

```
#set_separator ,
```

```
#empty_field (empty)
```

```
#unset_field -
```

```
#path notice
```

```
#open 2014-04-01-23-15-42
```

```
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_desc  
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city  
remote_location.latitude remote_location.longitude
```

```
#types time string addr port addr port string string enum enum string string addr addr port count string set[enum] interval  
bool string string string double double
```

```
1396394142.353380 - - - - - Test_Notice test notice! - - - - - worker-2 Notice::ACTION_LOG 3600.000000 F - - - - -
```

```
#close 2014-04-01-23-15-45
```

```
#separator \x09
```

```
#set_separator ,
```

```
#empty_field (empty)
```

```
#unset_field -
```

```
#path notice
```

```
#open 2017-12-21-02-29-44
```

```
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_desc  
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city  
remote_location.latitude remote_location.longitude
```

```
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval  
bool string string string double double
```

```
1427726759.303199 - - - - - SSH::Password_Guessing 192.168.56.1 appears to be guessing SSH passwords (seen in  
10 connections). Sampled servers: 192.168.56.103, 192.168.56.103, 192.168.56.103, 192.168.56.103,  
192.168.56.103 192.168.56.1 - - - - - Notice::ACTION_LOG 3600.000000 F - - - - -
```

```
#close 2017-12-21-02-29-44
```

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```
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2014-04-01-23-15-31
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_desc
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1396394130.996908 - - - - - Test_Notice test notice! - - - - - worker-1 Notice::ACTION_LOG 3600.000000 F - - - - -
#close 2014-04-01-23-15-31
# There shouldn't be any default overhead from loading these since they
# *should* only do anything when notices have the ACTION_EMAIL action applied.
@load ./extend-email/hostnames
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2014-04-24-18-29-46
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fuid file_mime_type file_desc proto note msg sub src dst p n peer_desc
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1396973486.753913 CXWv6p3arKYeMETxOg 173.203.79.216 46592 162.219.2.166 443 - - - tcp
Heartbleed::SSL_Heartbeat_Attack An TLS heartbleed attack was detected! Record length 16368, payload length
16365 - 173.203.79.216 162.219.2.166 443 - bro Notice::ACTION_LOG 3600.000000 F - - - - -
#close 2014-04-24-18-29-46
#separator \x09
#set_separator ,
```

```

#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-30-08
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1394745603.293028 CHhAvVGS1DHFjwGM9 192.168.4.149 60539 87.98.220.10 443 F1fX1R2cDOzbg17ye - - tcp
SSL::Certificate_Expired Certificate CN=www.spidh.org,OU=COMODO SSL,OU=Domain Control Validated
expired at 2014-03-04-23:59:59.000000000 - 192.168.4.149 87.98.220.10 443 - - Notice::ACTION_LOG 86400.000000
F - - - -
1394745619.197766 CIEkJM2Vm5giqnMf4h 192.168.4.149 60540 122.1.240.204 443 F6NAbK127LhNBaEe5c - - tcp
SSL::Certificate_Expires_Soon Certificate CN=www.tobu-estate.com,OU=Terms of use at www.verisign.com/rpa
(c)05,O=TOBU RAILWAY Co.,Ltd.,L=Sumida-ku,ST=Tokyo,C=JP is going to expire at 2014-03-14-
23:59:59.000000000 - 192.168.4.149 122.1.240.204 443 - - Notice::ACTION_LOG 86400.000000 F - - - -
#close 2017-12-21-02-30-08
#separator \x09
#set_separator ,
#empty_field (empty)
#unset_field -
#path notice
#open 2017-12-21-02-29-09
#fields ts uid id.orig_h id.orig_p id.resp_h id.resp_p fluid file_mime_type file_desc proto note msg sub src dst p n peer_descr
actions suppress_for dropped remote_location.country_code remote_location.region remote_location.city
remote_location.latitude remote_location.longitude
#types time string addr port addr port string string string enum enum string string addr addr port count string set[enum] interval
bool string string string double double
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.0.0 to 1.1.0 my_fake_software 1.1.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.1.0 to 1.2.0 my_fake_software 1.2.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.2.0 to 1.0.0 my_fake_software 1.0.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.0.0 to 1.1.0 my_fake_software 1.1.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.1.0 to 1.2.0 my_fake_software 1.2.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN
'my_fake_software' version changed from 1.2.0 to 1.0.0 my_fake_software 1.0.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
1513823349.733021 - - - - - Software::Software_Version_Change 1513823349.733021 Software::UNKNOWN

```

```

'my_fake_software' version changed from 1.0.0 to 1.1.0 my_fake_software 1.1.0 127.0.0.1 - - - - Notice::ACTION_LOG
3600.000000 F - - - -
#close 2017-12-21-02-29-09
### Loading this script extends the :bro:enum:`Notice::ACTION_EMAIL` action
### by appending to the email the hostnames associated with
### :bro:type:`Notice::Info`'s *src* and *dst* fields as determined by a
### DNS lookup.

@load base/frameworks/notice/main

module Notice;

# We have to store references to the notices here because the when statement
# clones the frame which doesn't give us access to modify values outside
# of it's execution scope. (we get a clone of the notice instead of a
# reference to the original notice)
global tmp_notice_storage: table[string] of Notice::Info &create_expire=max_email_delay+10secs;

hook notice(n: Notice::Info) &priority=10
{
  if ( ! n?$src && ! n?$dst )
    return;

  # This should only be done for notices that are being sent to email.
  if ( ACTION_EMAIL !in n$actions )
    return;

  # I'm not recovering gracefully from the when statements because I want
  # the notice framework to detect that something has exceeded the maximum
  # allowed email delay and tell the user.
  local uid = unique_id("");
  tmp_notice_storage[uid] = n;

  local output = "";
  if ( n?$src )
  {
    add n$email_delay_tokens["hostnames-src"];
    when ( local src_name = lookup_addr(n$src) )
    {
      output = string_cat("orig/src hostname: ", src_name, "\n");
      tmp_notice_storage[uid]$email_body_sections += output;
      delete tmp_notice_storage[uid]$email_delay_tokens["hostnames-src"];
    }
  }
  if ( n?$dst )
  {
    add n$email_delay_tokens["hostnames-dst"];
    when ( local dst_name = lookup_addr(n$dst) )

```

```

{
output = string_cat("resp/dst hostname: ", dst_name, "\n");
tmp_notice_storage[uid]$email_body_sections += output;
delete tmp_notice_storage[uid]$email_delay_tokens["hostnames-dst"];
}
}
}
### This script provides a default set of actions to take for "weird activity"
### events generated from Bro's event engine. Weird activity is defined as
### unusual or exceptional activity that can indicate malformed connections,
### traffic that doesn't conform to a particular protocol, malfunctioning
### or misconfigured hardware, or even an attacker attempting to avoid/confuse
### a sensor. Without context, it's hard to judge whether a particular
### category of weird activity is interesting, but this script provides
### a starting point for the user.

```

```

@load base/utils/conn-ids
@load base/utils/site
@load ./main

```

```

module Weird;

```

```

export {
## The weird logging stream identifier.
redef enum Log::ID += { LOG };

redef enum Notice::Type += {
## Generic unusual but notice-worthy weird activity.
Activity,
};

## The record which is used for representing and logging weirds.
type Info: record {
## The time when the weird occurred.
ts: time &log;

## If a connection is associated with this weird, this will be
## the connection's unique ID.
uid: string &log &optional;

## conn_id for the optional connection.
id: conn_id &log &optional;

## A shorthand way of giving the uid and id to a weird.
conn: connection &optional;

## The name of the weird that occurred.
name: string &log;

```



```

## Additional information accompanying the weird if any.
addl: string &log &optional;

## Indicate if this weird was also turned into a notice.
notice: bool &log &default=F;

## The peer that originated this weird. This is helpful in
## cluster deployments if a particular cluster node is having
## trouble to help identify which node is having trouble.
peer: string &log &optional &default=peer_description;

## This field is to be provided when a weird is generated for
## the purpose of deduplicating weirds. The identifier string
## should be unique for a single instance of the weird. This field
## is used to define when a weird is conceptually a duplicate of
## a previous weird.
identifier: string &optional;
};

## Types of actions that may be taken when handling weird activity events.
type Action: enum {
## A dummy action indicating the user does not care what
## internal decision is made regarding a given type of weird.
ACTION_UNSPECIFIED,
## No action is to be taken.
ACTION_IGNORE,
## Log the weird event every time it occurs.
ACTION_LOG,
## Log the weird event only once.
ACTION_LOG_ONCE,
## Log the weird event once per connection.
ACTION_LOG_PER_CONN,
## Log the weird event once per originator host.
ACTION_LOG_PER_ORIG,
## Always generate a notice associated with the weird event.
ACTION_NOTICE,
## Generate a notice associated with the weird event only once.
ACTION_NOTICE_ONCE,
## Generate a notice for the weird event once per connection.
ACTION_NOTICE_PER_CONN,
## Generate a notice for the weird event once per originator host.
ACTION_NOTICE_PER_ORIG,
};

## A table specifying default/recommended actions per weird type.
const actions: table[string] of Action = {
["unsolicited_SYN_response"] = ACTION_IGNORE,

```

["above_hole_data_without_any_acks"] = ACTION_LOG,
["active_connection_reuse"] = ACTION_LOG,
["bad_HTTP_reply"] = ACTION_LOG,
["bad_HTTP_version"] = ACTION_LOG,
["bad_ICMP_checksum"] = ACTION_LOG_PER_ORIG,
["bad_ident_port"] = ACTION_LOG,
["bad_ident_reply"] = ACTION_LOG,
["bad_ident_request"] = ACTION_LOG,
["bad_rlogin_prolog"] = ACTION_LOG,
["bad_rsh_prolog"] = ACTION_LOG,
["rsh_text_after_rejected"] = ACTION_LOG,
["bad_RPC"] = ACTION_LOG_PER_ORIG,
["bad_RPC_program"] = ACTION_LOG,
["bad_SYN_ack"] = ACTION_LOG,
["bad_TCP_checksum"] = ACTION_LOG_PER_ORIG,
["bad_UDP_checksum"] = ACTION_LOG_PER_ORIG,
["baroque_SYN"] = ACTION_LOG,
["base64_illegal_encoding"] = ACTION_LOG,
["connection_originator_SYN_ack"] = ACTION_LOG_PER_ORIG,
["contentline_size_exceeded"] = ACTION_LOG,
["crud_trailing_HTTP_request"] = ACTION_LOG,
["data_after_reset"] = ACTION_LOG,
["data_before_established"] = ACTION_LOG,
["DNS_AAAA_neg_length"] = ACTION_LOG,
["DNS_Conn_count_too_large"] = ACTION_LOG,
["DNS_NAME_too_long"] = ACTION_LOG,
["DNS_RR_bad_length"] = ACTION_LOG,
["DNS_RR_length_mismatch"] = ACTION_LOG,
["DNS_RR_unknown_type"] = ACTION_LOG,
["DNS_label_forward_compress_offset"] = ACTION_LOG_PER_ORIG,
["DNS_label_len_gt_name_len"] = ACTION_LOG_PER_ORIG,
["DNS_label_len_gt_pkt"] = ACTION_LOG_PER_ORIG,
["DNS_label_too_long"] = ACTION_LOG_PER_ORIG,
["DNS_truncated_RR_rdlength_lt_len"] = ACTION_LOG,
["DNS_truncated_ans_too_short"] = ACTION_LOG,
["DNS_truncated_len_lt_hdr_len"] = ACTION_LOG,
["DNS_truncated_quest_too_short"] = ACTION_LOG,
["excessive_data_without_further_acks"] = ACTION_LOG,
["excess_RPC"] = ACTION_LOG_PER_ORIG,
["FIN_advanced_last_seq"] = ACTION_LOG,
["FIN_after_reset"] = ACTION_IGNORE,
["FIN_storm"] = ACTION_NOTICE_PER_ORIG,
["HTTP_bad_chunk_size"] = ACTION_LOG,
["HTTP_chunked_transfer_for_multipart_message"] = ACTION_LOG,
["HTTP_overlapping_messages"] = ACTION_LOG,
["unknown_HTTP_method"] = ACTION_LOG,
["HTTP_version_mismatch"] = ACTION_LOG,
["ident_request_addendum"] = ACTION_LOG,

```

["inappropriate_FIN"]           = ACTION_LOG,
["inflate_failed"]              = ACTION_LOG,
["invalid_irc_global_users_reply"] = ACTION_LOG,
["irc_invalid_command"]        = ACTION_LOG,
["irc_invalid_dcc_message_format"] = ACTION_LOG,
["irc_invalid_invite_message_format"] = ACTION_LOG,
["irc_invalid_join_line"]      = ACTION_LOG,
["irc_invalid_kick_message_format"] = ACTION_LOG,
["irc_invalid_line"]           = ACTION_LOG,
["irc_invalid_mode_message_format"] = ACTION_LOG,
["irc_invalid_names_line"]     = ACTION_LOG,
["irc_invalid_njoin_line"]     = ACTION_LOG,
["irc_invalid_notice_message_format"] = ACTION_LOG,
["irc_invalid_oper_message_format"] = ACTION_LOG,
["irc_invalid_privmsg_message_format"] = ACTION_LOG,
["irc_invalid_reply_number"]   = ACTION_LOG,
["irc_invalid_squery_message_format"] = ACTION_LOG,
["irc_invalid_topic_reply"]    = ACTION_LOG,
["irc_invalid_who_line"]       = ACTION_LOG,
["irc_invalid_who_message_format"] = ACTION_LOG,
["irc_invalid_whois_channel_line"] = ACTION_LOG,
["irc_invalid_whois_message_format"] = ACTION_LOG,
["irc_invalid_whois_operator_line"] = ACTION_LOG,
["irc_invalid_whois_user_line"] = ACTION_LOG,
["irc_line_size_exceeded"]     = ACTION_LOG,
["irc_line_too_short"]        = ACTION_LOG,
["irc_too_many_invalid"]      = ACTION_LOG,
["line_terminated_with_single_CR"] = ACTION_LOG,
["line_terminated_with_single_LF"] = ACTION_LOG,
["malformed_ssh_identification"] = ACTION_LOG,
["malformed_ssh_version"]     = ACTION_LOG,
["multiple_HTTP_request_elements"] = ACTION_LOG,
["NUL_in_line"]               = ACTION_LOG,
["originator_RPC_reply"]      = ACTION_LOG_PER_ORIG,
["partial_finger_request"]    = ACTION_LOG,
["partial_ftp_request"]       = ACTION_LOG,
["partial_ident_request"]     = ACTION_LOG,
["partial_RPC"]               = ACTION_LOG_PER_ORIG,
["pending_data_when_closed"]  = ACTION_LOG,
["pop3_bad_base64_encoding"]  = ACTION_LOG,
["pop3_client_command_unknown"] = ACTION_LOG,
["pop3_client_sending_server_commands"] = ACTION_LOG,
["pop3_malformed_auth_plain"] = ACTION_LOG,
["pop3_server_command_unknown"] = ACTION_LOG,
["pop3_server_sending_client_commands"] = ACTION_LOG,
["possible_split_routing"]    = ACTION_LOG,
["premature_connection_reuse"] = ACTION_LOG,
["repeated_SYN_reply_wo_ack"] = ACTION_LOG,

```

```

["repeated_SYN_with_ack"]      = ACTION_LOG,
["responder_RPC_call"]         = ACTION_LOG_PER_ORIG,
["rlogin_text_after_rejected"] = ACTION_LOG,
["RPC_rexmit_inconsistency"]   = ACTION_LOG,
["RPC_underflow"]              = ACTION_LOG,
["RST_storm"]                  = ACTION_LOG,
["RST_with_data"]              = ACTION_LOG,
["SSL_many_server_names"]      = ACTION_LOG,
["simultaneous_open"]          = ACTION_LOG_PER_CONN,
["spontaneous_FIN"]            = ACTION_IGNORE,
["spontaneous_RST"]            = ACTION_IGNORE,
["SMB_parsing_error"]          = ACTION_LOG,
["no_smb_session_using_parsesambmsg"] = ACTION_LOG,
["smb_andx_command_failed_to_parse"] = ACTION_LOG,
["transaction_subcmd_missing"]  = ACTION_LOG,
["successful_RPC_reply_to_invalid_request"] = ACTION_NOTICE_PER_ORIG,
["SYN_after_close"]            = ACTION_LOG,
["SYN_after_partial"]          = ACTION_NOTICE_PER_ORIG,
["SYN_after_reset"]            = ACTION_LOG,
["SYN_inside_connection"]      = ACTION_LOG,
["SYN_seq_jump"]               = ACTION_LOG,
["SYN_with_data"]              = ACTION_LOG_PER_ORIG,
["TCP_christmas"]              = ACTION_LOG,
["truncated_ARP"]              = ACTION_LOG,
["truncated_NTP"]              = ACTION_LOG,
["UDP_datagram_length_mismatch"] = ACTION_LOG_PER_ORIG,
["unexpected_client_HTTP_data"] = ACTION_LOG,
["unexpected_multiple_HTTP_requests"] = ACTION_LOG,
["unexpected_server_HTTP_data"] = ACTION_LOG,
["unmatched_HTTP_reply"]       = ACTION_LOG,
["unpaired_RPC_response"]       = ACTION_LOG,
["window_recision"]             = ACTION_LOG,
["double_%_in_URI"]             = ACTION_LOG,
["illegal_%_at_end_of_URI"]     = ACTION_LOG,
["unescaped_%_in_URI"]          = ACTION_LOG,
["unescaped_special_URI_char"]  = ACTION_LOG,
["deficit_netbios_hdr_len"]     = ACTION_LOG,
["excess_netbios_hdr_len"]      = ACTION_LOG,
["netbios_client_session_reply"] = ACTION_LOG,
["netbios_raw_session_msg"]     = ACTION_LOG,
["netbios_server_session_request"] = ACTION_LOG,
["unknown_netbios_type"]        = ACTION_LOG,
["excessively_large_fragment"]  = ACTION_LOG,
["excessively_small_fragment"]  = ACTION_LOG_PER_ORIG,
["fragment_inconsistency"]      = ACTION_LOG_PER_ORIG,
["fragment_overlap"]            = ACTION_LOG_PER_ORIG,
["fragment_protocol_inconsistency"] = ACTION_LOG,
["fragment_size_inconsistency"] = ACTION_LOG_PER_ORIG,

```

```

# These do indeed happen!
["fragment_with_DF"]          = ACTION_LOG,
["incompletely_captured_fragment"] = ACTION_LOG,
["bad_IP_checksum"]          = ACTION_LOG_PER_ORIG,
["bad_TCP_header_len"]      = ACTION_LOG,
["internally_truncated_header"] = ACTION_LOG,
["truncated_IP"]           = ACTION_LOG,
["truncated_header"]       = ACTION_LOG,
} &default=ACTION_LOG &redef;

## To completely ignore a specific weird for a host, add the host
## and weird name into this set.
option ignore_hosts: set[addr, string] = {};

## Don't ignore repeats for weirds in this set. For example,
## it's handy keeping track of clustered checksum errors.
option weird_do_not_ignore_repeats = {
    "bad_IP_checksum", "bad_TCP_checksum", "bad_UDP_checksum",
    "bad_ICMP_checksum",
};

## This table is used to track identifier and name pairs that should be
## temporarily ignored because the problem has already been reported.
## This helps reduce the volume of high volume weirds by only allowing
## a unique weird every ``create_expire`` interval.
global weird_ignore: set[string, string] &create_expire=10min &redef;

## A state set which tracks unique weirds solely by name to reduce
## duplicate logging. This is deliberately not synchronized because it
## could cause overload during storms.
global did_log: set[string, string] &create_expire=1day &redef;

## A state set which tracks unique weirds solely by name to reduce
## duplicate notices from being raised.
global did_notice: set[string, string] &create_expire=1day &redef;

## Handlers of this event are invoked once per write to the weird
## logging stream before the data is actually written.
##
## rec: The weird columns about to be logged to the weird stream.
global log_weird: event(rec: Info);

global weird: function(w: Weird::Info);
}

# These actions result in the output being limited and further redundant
# weirds not progressing to being logged or noticed.
const limiting_actions = {

```

```

ACTION_LOG_ONCE,
ACTION_LOG_PER_CONN,
ACTION_LOG_PER_ORIG,
ACTION_NOTICE_ONCE,
ACTION_NOTICE_PER_CONN,
ACTION_NOTICE_PER_ORIG,
};

# This is an internal set to track which Weird::Action values lead to notice
# creation.
const notice_actions = {
ACTION_NOTICE,
ACTION_NOTICE_PER_CONN,
ACTION_NOTICE_PER_ORIG,
ACTION_NOTICE_ONCE,
};

event bro_init() &priority=5
{
Log::create_stream(Weird::LOG, [$columns=Info, $sev=log_weird, $path="weird"]);
}

function flow_id_string(src: addr, dst: addr): string
{
return fmt("%s -> %s", src, dst);
}

function weird(w: Weird::Info)
{
local action = actions[w$name];

local identifier = "";
if ( w?$identifier )
identifier = w?$identifier;
else
{
if ( w?$id )
identifier = id_string(w?$id);
}

# If this weird is to be ignored let's drop out of here very early.
if ( action == ACTION_IGNORE || [w$name, identifier] in weird_ignore )
return;

if ( w?$conn )
{
w$suid = w?$conn$suid;
w$id = w?$conn$id;
}
}

```

```

}

if ( w?$id )
{
if ( [w$id$orig_h, w$name] in ignore_hosts ||
[w$id$resp_h, w$name] in ignore_hosts )
return;
}

if ( action in limiting_actions )
{
local notice_identifier = identifier;
if ( action in notice_actions )
{
# Handle notices
if ( w?$id && action == ACTION_NOTICE_PER_ORIG )
notice_identifier = fmt("%s", w$id$orig_h);
else if ( action == ACTION_NOTICE_ONCE )
notice_identifier = "";

# If this weird was already noticed then we're done.
if ( [w$name, notice_identifier] in did_notice )
return;
add did_notice[w$name, notice_identifier];
}
else
{
# Handle logging.
if ( w?$id && action == ACTION_LOG_PER_ORIG )
notice_identifier = fmt("%s", w$id$orig_h);
else if ( action == ACTION_LOG_ONCE )
notice_identifier = "";

# If this weird was already logged then we're done.
if ( [w$name, notice_identifier] in did_log )
return;

add did_log[w$name, notice_identifier];
}
}

if ( action in notice_actions )
{
w$notice = T;

local n: Notice::Info;
n$note = Activity;
n$msg = w$name;

```

```

if ( w?$conn )
    n$conn = w$conn;
else
    {
    if ( w?$uid )
        n$uid = w$uid;
    if ( w?$id )
        n$id = w$id;
    }
if ( w?$addl )
    n$sub = w$addl;
NOTICE(n);
}

# This is for the temporary ignoring to reduce volume for identical weirds.
if ( w$name !in weird_do_not_ignore_repeats )
    add weird_ignore[w$name, identifier];

Log::write(Weird::LOG, w);
}

# The following events come from core generated weirds typically.
event conn_weird(name: string, c: connection, addl: string)
{
    local i = Info($ts=network_time(), $name=name, $conn=c, $identifier=id_string(c$id));
    if ( addl != "" )
        i$addl = addl;

    weird(i);
}

event flow_weird(name: string, src: addr, dst: addr)
{
    # We add the source and destination as port 0/unknown because that is
    # what fits best here.
    local id = conn_id($orig_h=src, $orig_p=count_to_port(0, unknown_transport),
        $resp_h=dst, $resp_p=count_to_port(0, unknown_transport));

    local i = Info($ts=network_time(), $name=name, $id=id, $identifier=flow_id_string(src,dst));
    weird(i);
}

event net_weird(name: string)
{
    local i = Info($ts=network_time(), $name=name);
    weird(i);
}

```


1.9 hashicorp-go-envparse 0.1.0

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@c Local Variables:

@c ispell-local-pdict: "ispell-dict"

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1.13 iana-etc 20220915

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<note>Defined TXT keys: Proprietary</note>

<note>Defined TXT keys: Proprietary</note>

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<description>FileMaker, Inc. - Proprietary name binding</description>

<description>FileMaker, Inc. - Proprietary transport</description>

<description>FileMaker, Inc. - Proprietary transport</description>

<description>Proprietary Website deployment service</description>

<description>Proprietary immutable distributed data storage</description>

<description>Proprietary immutable distributed data storage</description>

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<description>Active Storage Proprietary Device Management Protocol</description>

<description>Encrypted transport of Active Storage Proprietary Device Management Protocol</description>

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<note>Defined TXT keys: proprietary</note>

<description>Proprietary protocol for Accu-Med HTM</description>

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Found in path(s):

* /opt/cola/permits/1668148603_1683577509.6741414/0/mic92-iana-etc-20220915-0-gd587f66-tar-gz/Mic92-iana-etc-d587f66/service-names-port-numbers.xml

1.14 jack 0.125.0-7

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1.15 rardecode 1.1.1-0.20210804143928-85450e58ca67

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1.16 felixge-fgprof 0.9.3

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1.17 linux-kernel 4.19.193-2-1000

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1.18 libvorbis 1.3.6

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1.19 aws-c-sdkutils 0.1.7

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1.20 gpm 2.1.0

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1.21 wifi 0.0.0-20220330172155-a44c70b6d3c8

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1.22 object-introspection-runtime 1.60.2-1

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1.23 libutempter 1.1.6 3

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1.24 opus 1.3.1

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1.25 zfs-utils-git 0.8.1_r0_63b88f7e_-1

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_010_pos.ksh
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set -A RW_FS_PROP "quota=536870912" \

"reservation=536870912" \

"recordsize=262144" \

"mountpoint=/tmp/mnt\$\$" \

"checksum=fletcher2" \

```

"compression=lzjb" \
"atime=off" \
"devices=off" \
"exec=off" \
"setuid=off" \
"readonly=on" \
"snapdir=visible" \
"canmount=off" \
"local:department=123"

set -A RW_VOL_PROP "volblocksize=16384" \
"checksum=fletcher2" \
"compression=lzjb" \
"readonly=on" \
"local:department=123"

set -A RW_VOL_CLONE_PROP "checksum=fletcher2" \
"compression=lzjb" \
"readonly=on" \
"local:department=123"

set -A FS_ONLY_PROP "quota=536870912" \
"recordsize=65536" \
"mountpoint=/tmp/mnt$$" \
"atime=off" \
"devices=off" \
"exec=off" \
"setuid=off" \
"zoned=on" \
"snapdir=visible" \
"canmount=off" \
"version=1"

set -A VOL_ONLY_PROP "volblocksize=16384" "volsize=536870912"

```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/properties.kshlib
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```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

```
xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_discard_busy.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_indirect.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_big_rewind.ksh
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#
#
# A function to determine if a given pool name has an entry in cachefile
# returns 1 if the pool is not in the cache, 0 otherwise.
function pool_in_cache {

# checking for the pool name in the strings output of
# the given cachefile, default is /etc/zfs/zpool.cache
typeset cachefile=${2:-$CPATH}

RESULT=$(strings $cachefile | grep -w $1)
if [ -z "$RESULT" ]
```

```
then
  return 1
fi
return 0
}
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cachefile/cachefile.kshlib
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_holds.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_012_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/norm_all_values.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/casenorm.cfg
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/setup.ksh
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xz/usr/include/libspl/sys/inttypes.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/int_types.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/strings.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/feature_tests.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/devid.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/param.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/sysevent.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/time.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/cmn_err.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/int_limits.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/file.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/va_list.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

```

```
xz/usr/include/libspl/sys/cred.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/mount.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/priv.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/bitmap.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/zone.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/varargs.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/string.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_verify_checksums.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_split.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_import_export.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_start_and_cancel_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_suspend_resume.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_offline_export_import_online.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_start_and_cancel_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_verify_initialized.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_online_offline.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_unsupported_vdevs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_014_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize_attach_detach_add_remove.ksh
```

No license file was found, but licenses were detected in source scan.

```
# The contents of this file are subject to the terms of the
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```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_015_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refreserv/refreserv_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/inherit_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/snapused_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/poolversion/poolversion_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/online_offline_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_017_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rootpool/rootpool_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmap/mmap_read_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/zfs_list_008_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```


xz/usr/share/zfs/zfs-tests/tests/functional/rootpool/rootpool_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/snapused_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_012_pos.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/largest_pool/largest_pool_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userspace_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cachefile_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/clone_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/snapused_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cachefile/cachefile_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/online_offline_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_009_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_012_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_007_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_012_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_create_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userspace_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_015_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_add_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_011_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota_001_pos.ksh

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```
end
i = i + 1
end
i = i + 1
end
i = i + 1
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
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i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
```



```
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
i = i + 1  
end  
return i
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/luacore/tst.nested_neg.zcp
```

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Found in path(s):

```
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```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/atime/root_atime_on.ksh
```

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```

```
#
```

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```

```
#
```

```
.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/removal/removal.kshlib
```

```
#
# In general all the tests related to the pool checkpoint can
# be divided into two categories. TESTS that verify features
# provided by the checkpoint (e.g. checkpoint_rewind) and tests
# that stress-test the checkpoint (e.g. checkpoint_big_rewind).
#
# For the first group we don't really care about the size of
# the pool or the individual file sizes within the filesystems.
# This is why these tests run directly on pools that use a
# "real disk vdev" (meaning not a file based one). These tests
# use the $TESTPOOL pool that is created on top of $TESTDISK.
```

```

# This pool is referred to as the "test pool" and thus all
# the tests of this group use the testpool-related functions of
# this file (not the nested_pools ones).
#
# For the second group we generally try to bring the pool to its
# limits by increasing fragmentation, filling all allocatable
# space, attempting to use vdevs that the checkpoint spacemap
# cannot represent, etc. For these tests we need to control
# almost all parameters of the pool and the vdevs that back it
# so we create them based on file-based vdevs that we carefully
# create within the $TESTPOOL pool. So most of these tests, in
# order to create this nested pool structure, generally start
# like this:
# 1] We create the test pool ($TESTPOOL).
# 2] We create a filesystem and we populate it with files of
#    some predetermined size.
# 3] We use those files as vdevs for the pool that the test
#    will use ($NESTEDPOOL).
# 4] Go on and let the test run and operate on $NESTEDPOOL.
#
#
# These disks are used to back $TESTPOOL
#
TESTDISK="$(echo $DISKS | cut -d' ' -f1)"
EXTRATESTDISK="$(echo $DISKS | cut -d' ' -f2)"

FS0=$TESTPOOL/$TESTFS
FS1=$TESTPOOL/$TESTFS1
FS2=$TESTPOOL/$TESTFS2

FS0FILE=/$FS0/$TESTFILE0
FS1FILE=/$FS1/$TESTFILE1
FS2FILE=/$FS2/$TESTFILE2

#
# The following are created within $TESTPOOL and
# will be used to back $NESTEDPOOL
#
DISKFS=$TESTPOOL/disks
FILEDISKDIR=/$DISKFS
FILEDISK1=/$DISKFS/dsk1
FILEDISK2=/$DISKFS/dsk2
FILEDISKS="$FILEDISK1 $FILEDISK2"

#
# $NESTEDPOOL related variables
#

```

```

NESTEDPOOL=nestedpool
NESTEDFS0=$NESTEDPOOL/$TESTFS
NESTEDFS1=$NESTEDPOOL/$TESTFS1
NESTEDFS2=$NESTEDPOOL/$TESTFS2
NESTEDFS0FILE=/$NESTEDFS0/$TESTFILE0
NESTEDFS1FILE=/$NESTEDFS1/$TESTFILE1
NESTEDFS2FILE=/$NESTEDFS2/$TESTFILE2

#
# In the tests that stress-test the pool (second category
# mentioned above), there exist some that need to bring
# fragmentation at high percentages in a relatively short
# period of time. In order to do that we set the following
# parameters:
#
# * We use two disks of 1G each, to create a pool of size 2G.
# The point is that 2G is not small nor large, and we also
# want to have 2 disks to introduce indirect vdevs on our
# setup.
# * We enable compression and set the record size of all
# filesystems to 8K. The point of compression is to
# ensure that we are not filling up the whole pool (that's
# what checkpoint_capacity is for), and the specific
# record size is set to match the block size of randwritecomp
# which is used to increase fragmentation by writing on
# files.
# * We always have 2 big files present of 512M each, which
# should account for 40%~50% capacity by the end of each
# test with fragmentation around 50~60%.
# * At each file we attempt to do enough random writes to
# touch every offset twice on average.
#
# Note that the amount of random writes per files are based
# on the following calculation:
#
#  $((512M / 8K) * 3) * 2 = \sim 400000$ 
#
# Given that the file is 512M and one write is 8K, we would
# need (512M / 8K) writes to go through the whole file.
# Assuming though that each write has a compression ratio of
# 3, then we want 3 times that to cover the same amount of
# space. Finally, we multiply that by 2 since our goal is to
# touch each offset twice on average.
#
# Examples of those tests are checkpoint_big_rewind and
# checkpoint_discard_busy.
#
FILEDISKSIZE=1g

```

```

DISKSIZE=1g
BIGFILESIZE=512M
RANDOMWRITES=400000

#
# Assumes create_test_pool has been called beforehand.
#
function setup_nested_pool
{
    log_must zfs create $DISKFS

    log_must truncate -s $DISKSIZE $FILEDISK1
    log_must truncate -s $DISKSIZE $FILEDISK2

    log_must zpool create -O sync=disabled $NESTEDPOOL $FILEDISKS
}

function setup_test_pool
{
    log_must zpool create -O sync=disabled $TESTPOOL "$TESTDISK"
}

function setup_nested_pools
{
    setup_test_pool
    setup_nested_pool
}

function cleanup_nested_pool
{
    log_must zpool destroy $NESTEDPOOL
    log_must rm -f $FILEDISKS
}

function cleanup_test_pool
{
    log_must zpool destroy $TESTPOOL

#
# We always clear the labels of all disks
# between tests so imports from zpool or
# or zdb do not get confused with leftover
# data from old pools.
#
for disk in $DISKS; do
    zpool labelclear -f $disk
done

```

```

}

function cleanup_nested_pools
{
cleanup_nested_pool
cleanup_test_pool
}

#
# Remove and re-add each vdev to ensure that data is
# moved between disks and indirect mappings are created
#
function introduce_indirection
{
for disk in ${FILEDISKS[@]}; do
log_must zpool remove $NESTEDPOOL $disk
log_must wait_for_removal $NESTEDPOOL
log_mustnot vdevs_in_pool $NESTEDPOOL $disk
log_must zpool add $NESTEDPOOL $disk
done
}

FILECONTENTS0="Can't wait to be checkpointed!"
FILECONTENTS1="Can't wait to be checkpointed too!"
NEWFILECONTENTS0="I survived after the checkpoint!"
NEWFILECONTENTS2="I was born after the checkpoint!"

function populate_test_pool
{
log_must zfs create -o compression=lz4 -o recordsize=8k $FS0
log_must zfs create -o compression=lz4 -o recordsize=8k $FS1

echo $FILECONTENTS0 > $FS0FILE
echo $FILECONTENTS1 > $FS1FILE
}

function populate_nested_pool
{
log_must zfs create -o compression=lz4 -o recordsize=8k $NESTEDDFS0
log_must zfs create -o compression=lz4 -o recordsize=8k $NESTEDDFS1

echo $FILECONTENTS0 > $NESTEDDFS0FILE
echo $FILECONTENTS1 > $NESTEDDFS1FILE
}

function test_verify_pre_checkpoint_state
{
log_must zfs list $FS0

```



```

log_must zfs list $FS1
log_must [ "$(<$FS0FILE)" = "$FILECONTENTS0" ]
log_must [ "$(<$FS1FILE)" = "$FILECONTENTS1" ]

#
# If we've opened the checkpointed state of the
# pool as read-only without rewinding on-disk we
# can't really use zdb on it.
#
if [[ "$1" != "ro-check" ]] ; then
    log_must zdb $TESTPOOL
fi

#
# Ensure post-checkpoint state is not present
#
log_mustnot zfs list $FS2
log_mustnot [ "$(<$FS0FILE)" = "$NEWFILECONTENTS0" ]
}

function nested_verify_pre_checkpoint_state
{
    log_must zfs list $NESTEDFS0
    log_must zfs list $NESTEDFS1
    log_must [ "$(<$NESTEDFS0FILE)" = "$FILECONTENTS0" ]
    log_must [ "$(<$NESTEDFS1FILE)" = "$FILECONTENTS1" ]

#
# If we've opened the checkpointed state of the
# pool as read-only without rewinding on-disk we
# can't really use zdb on it.
#
if [[ "$1" != "ro-check" ]] ; then
    log_must zdb $NESTEDPOOL
fi

#
# Ensure post-checkpoint state is not present
#
log_mustnot zfs list $NESTEDFS2
log_mustnot [ "$(<$NESTEDFS0FILE)" = "$NEWFILECONTENTS0" ]
}

function test_change_state_after_checkpoint
{
    log_must zfs destroy $FS1
    log_must zfs create -o compression=lz4 -o recordsize=8k $FS2

```

```

echo $NEWFILECONTENTS0 > $FS0FILE
echo $NEWFILECONTENTS2 > $FS2FILE
}

function nested_change_state_after_checkpoint
{
log_must zfs destroy $NESTEDFS1
log_must zfs create -o compression=lz4 -o recordsize=8k $NESTEDFS2

echo $NEWFILECONTENTS0 > $NESTEDFS0FILE
echo $NEWFILECONTENTS2 > $NESTEDFS2FILE
}

function test_verify_post_checkpoint_state
{
log_must zfs list $FS0
log_must zfs list $FS2
log_must [ "$(<$FS0FILE)" = "$NEWFILECONTENTS0" ]
log_must [ "$(<$FS2FILE)" = "$NEWFILECONTENTS2" ]

log_must zdb $TESTPOOL

#
# Ensure pre-checkpointed state that was removed post-checkpoint
# is not present
#
log_mustnot zfs list $FS1
log_mustnot [ "$(<$FS0FILE)" = "$FILECONTENTS0" ]
}

function fragment_before_checkpoint
{
populate_nested_pool
log_must mkfile -n $BIGFILESIZE $NESTEDFS0FILE
log_must mkfile -n $BIGFILESIZE $NESTEDFS1FILE
log_must randwritecomp $NESTEDFS0FILE $RANDOMWRITES
log_must randwritecomp $NESTEDFS1FILE $RANDOMWRITES

#
# Display fragmentation on test log
#
log_must zpool list -v
}

function fragment_after_checkpoint_and_verify
{
log_must zfs destroy $NESTEDFS1
log_must zfs create -o compression=lz4 -o recordsize=8k $NESTEDFS2

```

```

log_must mkfile -n $BIGFILESIZE $NESTEDDFS2FILE
log_must randwritecomp $NESTEDDFS0FILE $RANDOMWRITES
log_must randwritecomp $NESTEDDFS2FILE $RANDOMWRITES

#
# Display fragmentation on test log
#
log_must zpool list -v

#
# Typically we would just run zdb at this point and things
# would be fine. Unfortunately, if there is still any
# background I/O in the pool the zdb command can fail with
# checksum errors temporarily.
#
# Export the pool when running zdb so the pool is idle and
# the verification results are consistent.
#
log_must zpool export $NESTEDPOOL
log_must zdb -e -p $FILEDISKDIR $NESTEDPOOL
log_must zdb -e -p $FILEDISKDIR -kc $NESTEDPOOL
log_must zpool import -d $FILEDISKDIR $NESTEDPOOL
}

function wait_discard_finish
{
typeset pool="$1"

typeset status
status=$(zpool status $pool | grep "checkpoint:")
while [ "" != "$status" ]; do
sleep 5
status=$(zpool status $pool | grep "checkpoint:")
done
}

function test_wait_discard_finish
{
wait_discard_finish $TESTPOOL
}

function nested_wait_discard_finish
{
wait_discard_finish $NESTEDPOOL
}

#
# Creating the setup for the second group of tests mentioned in

```

```
# block comment of this file can take some time as we are doing
# random writes to raise capacity and fragmentation before taking
# the checkpoint. Thus we create this setup once and save the
# disks of the nested pool in a temporary directory where we can
# reuse it for each test that requires that setup.
```

```
#
```

```
SAVEDPOOLDIR="$TEST_BASE_DIR/ckptpoint_saved_pool"
```

```
function test_group_premake_nested_pools
```

```
{
```

```
    setup_nested_pools
```

```
    #
```

```
    # Populate and fragment the pool.
```

```
    #
```

```
    fragment_before_checkpoint
```

```
    #
```

```
    # Export and save the pool for other tests.
```

```
    #
```

```
    log_must zpool export $NESTEDPOOL
```

```
    log_must mkdir $SAVEDPOOLDIR
```

```
    log_must cp $FILEDISKS $SAVEDPOOLDIR
```

```
    #
```

```
    # Reimport pool to be destroyed by
```

```
    # cleanup_nested_pools function
```

```
    #
```

```
    log_must zpool import -d $FILEDISKDIR $NESTEDPOOL
```

```
}
```

```
function test_group_destroy_saved_pool
```

```
{
```

```
    log_must rm -rf $SAVEDPOOLDIR
```

```
}
```

```
#
```

```
# Recreate nested pool setup from saved pool.
```

```
#
```

```
function setup_nested_pool_state
```

```
{
```

```
    setup_test_pool
```

```
    log_must zfs create $DISKFS
```

```
    log_must cp $SAVEDPOOLDIR/* $FILEDISKDIR
```

```
    log_must zpool import -d $FILEDISKDIR $NESTEDPOOL
```

```
}
```

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/pool_checkpoint.kshlib

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/dmu_recv.h

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xz/usr/include/libzfs/sys/space_map.h

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xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_reservation.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_errors.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_ganging.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_send_rcv.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_zdb.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_faulted.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_export.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_remove.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_send.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_snapshot.ksh

```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_create_fs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_scrub.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_add.ksh
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xz/usr/include/libzfs/sys/zfs_znode.h
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```

```

STF_PASS=0
STF_FAIL=1
STF_UNRESOLVED=2
STF_NOTINUSE=3
STF_UNSUPPORTED=4
STF_UNTESTED=5
STF_UNINITIATED=6
STF_NORESULT=7
STF_WARNING=8
STF_TIMED_OUT=9
STF_OTHER=10

```

```

# do this to use the names: eval echo \${STF_RESULT_NAME_${result}}
STF_RESULT_NAME_0="PASS"
STF_RESULT_NAME_1="FAIL"
STF_RESULT_NAME_2="UNRESOLVED"
STF_RESULT_NAME_3="NOTINUSE"
STF_RESULT_NAME_4="UNSUPPORTED"
STF_RESULT_NAME_5="UNTESTED"
STF_RESULT_NAME_6="UNINITIATED"
STF_RESULT_NAME_7="NORESULT"
STF_RESULT_NAME_8="WARNING"
STF_RESULT_NAME_9="TIMED_OUT"
STF_RESULT_NAME_10="OTHER"

```

```

# do this to use the array: ${STF_RESULT_NAMES[$result]}
STF_RESULT_NAMES=( "PASS" "FAIL" "UNRESOLVED" "NOTINUSE" "UNSUPPORTED" \
    "UNTESTED" "UNINITIATED" "NORESULT" "WARNING" "TIMED_OUT" "OTHER" )

```


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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/test-runner/include/stf.shlib

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_encrypted.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_crypt_combos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_raw.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_encrypted.ksh

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xz/usr/include/libzfs/sys/zfeature.h
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xz/usr/include/libzfs/sys/dsl_dataset.h
```

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#
```

```
. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zfs_load-key/zfs_load-key.cfg
```

```
# Return 0 is a dataset key is available, 1 otherwise
```

```
#
```

```
# $1 - dataset
```

```
#
```

```
function key_available
```

```
{
```

```
typeset ds=$1
```

```
datasetexists $ds || return 1
```

```
typeset val=$(get_prop keystatus $ds)
```

```
if [[ "$val" == "none" ]]; then
```

```
log_note "Dataset $ds is not encrypted"
```

```

elif [[ "$val" == "available" ]]; then
    return 0
fi

return 1
}

function key_unavailable
{
    key_available $1 && return 1
    return 0
}

function verify_keyformat
{
    typeset ds=$1
    typeset format=$2
    typeset fmt=$(get_prop keyformat $ds)

    if [[ "$fmt" != "$format" ]]; then
        log_fail "Expected keyformat $format, got $fmt"
    fi

    return 0
}

function verify_keylocation
{
    typeset ds=$1
    typeset location=$2
    typeset keyloc=$(get_prop keylocation $ds)

    if [[ "$keyloc" != "$location" ]]; then
        log_fail "Expected keylocation $location, got $keyloc"
    fi

    return 0
}

function verify_encryption_root
{
    typeset ds=$1
    typeset val=$2
    typeset eroot=$(get_prop encryptionroot $ds)

    if [[ "$eroot" != "$val" ]]; then
        log_note "Expected encryption root '$val', got '$eroot'"
        return 1
    fi
}

```

```

fi

return 0
}

function verify_origin
{
typeset ds=$1
typeset val=$2
typeset orig=$(get_prop origin $ds)

if [[ "$orig" != "$val" ]]; then
log_note "Expected origin '$val', got '$orig'"
return 1
fi

return 0
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_common.kshlib

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xz/usr/include/libzfs/sys/vdev_indirect_births.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/vdev_indirect_mapping.h

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xz/usr/include/libzfs/sys/sa.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zfs_stat.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zfs_vnops.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/zpool_export.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmap/mmap.cfg
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xz/usr/include/libzfs/libuutil_impl.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/vdev_file.h

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. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/events/events.cfg

#
# Wait for up to 'timeout' seconds for the 'file' to settle, i.e.
# not be updated for a period of 'delay' seconds.
#
function file_wait # file delay timeout
{
file=$1
delay=${2:-3}
timeout=${3:-120}

SECONDS=0

while [ $(( $(date +%s) - $(stat -c %Y $file) )) -lt $delay ]; do
if [[ $SECONDS -gt $timeout ]]; then
return 1
fi

sleep 1
done

return 0;
}

function run_and_verify
{
typeset delay event pool zedlog
set -A events

while getopts "d:e:p:z:" opt; do
case $opt in
d)
delay=$OPTARG
;;
e)

```



```

events[${#events[*]}+1]=$OPTARG
;;
p)
pool=$OPTARG
;;
z)
zedlog=$OPTARG
;;
esac
done
shift $((OPTIND - 1))

pool=${pool:-$TESTPOOL}
delay=${delay:-3}
zedlog=${zedlog:-$ZED_DEBUG_LOG}
fullcmd="$1"
cmd=$(echo $fullcmd | awk '{print $1}')

# If we aren't running zpool or zfs, something is wrong
[[ $cmd == "zpool" || $cmd == "zfs" ]] || \
    log_fail "run_and_verify called with \"$cmd ($fullcmd)\""

log_note "Checking events for command: '$fullcmd'"

# Remove any previous events from the logs.
log_must zpool events -c
log_must truncate -s 0 $zedlog

# Run the command as provided.
log_must eval "$fullcmd"

# Collect the new events and verify there are some.
log_must zpool sync -f
log_must file_wait $zedlog $delay
log_must cp $zedlog $TMP_EVENTS_ZED
log_must eval "zpool events >$TMP_EVENTS_2>/dev/null"
log_must eval "zpool events -v > $TMP_EVENTS_FULL 2>/dev/null"

log_must test -s $TMP_EVENTS
log_must test -s $TMP_EVENTS_FULL
log_must test -s $TMP_EVENTS_ZED

log_note "Events generated:"
cat $TMP_EVENTS

# Verify all the expected events appear in the log.
for event in ${events[*]}; do

```

```

# Verify the event is in in the short output.
log_must grep -q "$event" $TMP_EVENTS

# Verify the event is in the verbose output with pool name.
awk -v event="$event" \
  'BEGIN{FS="\n";RS=""} $0 ~ event { print $0 }' \
  $TMP_EVENTS_FULL >$TMP_EVENT_FULL
log_must grep -q "pool = \"$pool\"" $TMP_EVENT_FULL

# Verify the event was received by the ZED and logged.
awk -v event="$event" \
  'BEGIN{FS="\n";RS=""} $0 ~ event { print $0 }' \
  $TMP_EVENTS_ZED >$TMP_EVENT_ZED
log_must grep -q "^ZEVENT_POOL=$pool" $TMP_EVENT_ZED
done

rm -f $TMP_EVENTS $TMP_EVENTS_FULL $TMP_EVENT_FULL \
  $TMP_EVENTS_ZED $TMP_EVENT_ZED
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/events/events_common.kshlib

```

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```

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```

```

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#

. $STF_SUITE/include/libtest.shlib

#
# For zfs create.
#
set -A zpl_create_versions 3 4 5
set -A spa_create_versions 9 15 24

#
# For zfs upgrade
#
set -A zpl_upgrade_versions 3 4 5
set -A spa_upgrade_versions 9 15 24

function get_pool_version #pool
{
ver=$(get_pool_prop version $1)

if [ "$ver" = "-" ]; then
ver="5000"
fi

echo "$ver"
}

function default_setup_datasets #rootfs
{
typeset rootfs=$1
typeset pool=${rootfs%%/*}
typeset -i vp=$(get_pool_version $pool)
typeset -i version
typeset -i m
typeset -i spa_version
typeset -i zpl_version

for version in $ZFS_ALL_VERSIONS ; do
typeset verfs
eval verfs=\$ZFS_VERSION_$version
typeset current_fs=$rootfs/$verfs
typeset current_snap=${current_fs}@snap
typeset current_clone=$rootfs/clone$verfs

```

```

(( m=0 ))
(( spa_version=0 ))
while (( m < ${#zpl_create_versions[@]} )); do
  (( zpl_version=${zpl_create_versions[m]} ))
  if (( version == zpl_version )); then
    (( spa_version=${spa_create_versions[m]} ))
    break
  fi
  (( m+=1 ))
done
if (( spa_version != 0 )) && (( vp < spa_version )); then
  log_mustnot zfs create -o version=${version} ${current_fs}
  continue
fi
log_must zfs create -o version=${version} ${current_fs}
log_must zfs snapshot ${current_snap}
log_must zfs clone ${current_snap} ${current_clone}

for subversion in $ZFS_ALL_VERSIONS ; do
  typeset subverfs
  eval subverfs=\$ZFS_VERSION_${subversion}

  (( m=0 ))
  (( spa_version=0 ))
  while (( m < ${#zpl_create_versions[@]} )); do
    (( zpl_version=${zpl_create_versions[m]} ))
    if (( subversion == zpl_version )); then
      (( spa_version=${spa_create_versions[m]} ))
      break
    fi
    (( m+=1 ))
  done
  if (( spa_version != 0 )) && (( vp < spa_version )); then
    log_mustnot zfs create -o \
      version=${subversion} ${current_fs}/${subverfs}
  else
    log_must zfs create -o \
      version=${subversion} ${current_fs}/${subverfs}
  fi
done
done
}

function default_cleanup_datasets #rootfs
{
  typeset rootfs=$1

```

```

if datasetexists $rootfs ; then
  log_must_busy zfs destroy -Rf $rootfs
fi

if datasetnonexists $rootfs ; then
  log_must zfs create $rootfs
fi
}

function default_check_zfs_upgrade #rootfs
{
  typeset rootfs=$1
  typeset pool=${rootfs%%/*}
  typeset -i vp=$(get_pool_version $pool)
  typeset -i m
  typeset -i spa_version
  typeset -i zpl_version
  typeset newv
  typeset -i df_ret

  df -F zfs / > /dev/null 2>&1
  df_ret=$?

  for newv in "" $ZFS_VERSION; do
    default_setup_datasets $rootfs
    if [[ -n $newv ]]; then
      opt="-V $newv"
    else
      newv=$ZFS_VERSION
    fi

    (( m=0 ))
    (( spa_version=0 ))
    while (( m < ${#zpl_upgrade_versions[@]} )); do
      (( zpl_version=${zpl_upgrade_versions[m]} ))
      if (( newv == zpl_version )); then
        (( spa_version=${spa_upgrade_versions[m]} ))
        break
      fi
      (( m+=1 ))
    done

    if (( df_ret != 0 )); then
      if (( spa_version != 0 )) && (( vp < spa_version )); then
        log_mustnot eval "zfs upgrade $opt -a >/dev/null"
        log_must eval "zpool upgrade $pool >/dev/null"
        vp=$(get_pool_version $pool)
      fi

```

```

log_must zfs upgrade $opt -a

for fs in $(zfs list -rH -t filesystem -o name $rootfs) ; do
  log_must check_fs_version $fs $newv
done
fi

default_cleanup_datasets $rootfs
done
}

function check_fs_version #filesystem version
{
  typeset fs=$1
  typeset -i version=${2:-$ZFS_VERSION}

  if [[ -z $fs ]]; then
    log_fail "No filesystem specified."
  fi

  typeset -i curv=$(get_prop version $fs)
  if (( curv != version )); then
    return 1
  fi
  return 0
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade.kshlib
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#

. $STF_SUITE/tests/functional/acl/acl.cfg
. $STF_SUITE/include/libtest.shlib

#
# Get the given file/directory access mode
#
# $1 object -- file or directroy
#
function get_mode #<obj>
{
typeset obj=$1
if (( ${#obj} == 0 )); then
return 1
fi

ls -ld $obj | awk '{print $1}'
}

#
# Get the given file/directory ACL
#
# $1 object -- file or directroy
#
function get_acl #<obj>
{
typeset obj=$1
if (( ${#obj} == 0 )); then
return 1
fi

ls -vd $obj | nawk '(NR != 1) {print $0}'
}

```

```

#
# Get the given file/directory ACL
#
# $1 object -- file or directory
#
function get_compact_acl #<obj>
{
    typeset obj=$1
    if (( ${#obj} == 0 )); then
        return 1
    fi

    ls -Vd $obj | nawk '(NR != 1) {print $0}'
}

#
# Check the given two files/directories have the same ACLs
#
# Return 0, if source object acl is equal to target object acl.
#
# $1 source object
# $2 target object
#
function compare_acls #<src> <tgt>
{
    typeset src=$1
    typeset tgt=$2

    (( ${#src} == 0 || ${#tgt} == 0 )) && return 1
    [[ $src == $tgt ]] && return 0

    typeset tmpsrc=$TEST_BASE_DIR/compare_acls.src.$$
    typeset tmptgt=$TEST_BASE_DIR/compare_acls.tgt.$$

    get_acl $src > $tmpsrc
    get_acl $tgt > $tmptgt
    typeset -i ret=0
    diff $tmpsrc $tmptgt > /dev/null 2>&1
    ret=$?
    rm -f $tmpsrc $tmptgt

    if (( ret != 0 )); then
        return $ret
    fi

    get_compact_acl $src > $tmpsrc
    get_compact_acl $tgt > $tmptgt
    diff $tmpsrc $tmptgt > /dev/null 2>&1
}

```



```

ret=$?
rm -f $tmpsrc $tmptgt

return $ret
}

#
# Check that the given two objects have the same modes.
# Return 0, if their modes are equal with each other. Otherwise, return 1.
#
# $1 source object
# $2 target object
#
function compare_modes #<src> <tgt>
{
    typeset src=$1
    typeset tgt=$2
    typeset -i i=0
    set -A mode

    (( ${#src} == 0 || ${#tgt} == 0 )) && return 1
    [[ $src == $tgt ]] && return 0

    typeset obj
    for obj in $src $tgt
    do
        mode[i]=$(get_mode $obj)

        (( i = i + 1 ))
    done

    [[ ${mode[0]} != ${mode[1]} ]] && return 1

    return 0
}

#
# Check that the given two objects have the same xattrs.
# Return 0, if their xattrs are equal with each other. Otherwise, return 1.
#
# $1 source object
# $2 target object
#
function compare_xattrs #<src> <tgt>
{
    typeset src=$1
    typeset tgt=$2

```

```

(( ${#src} == 0 || ${#tgt} == 0 )) && return 1
[[ $src == $tgt ]] && return 0

typeset tmpsrc=$TEST_BASE_DIR/compare_xattrs.src.$$
typeset tmptgt=$TEST_BASE_DIR/compare_xattrs.tgt.$$

get_xattr $src > $tmpsrc
get_xattr $tgt > $tmptgt
typeset -i ret=0
diff $tmpsrc $tmptgt > /dev/null 2>&1
ret=$?
rm -f $tmpsrc $tmptgt

    return $ret
}

#
# Check '+' is set for a given file/directory with 'ls [-l]' command
#
# $1 object -- file or directory.
#
function plus_sign_check_l #<obj>
{
typeset obj=$1
if (( ${#obj} == 0 )); then
return 1
fi

ls -ld $obj | awk '{print $1}' | grep "+$" > /dev/null

return $?
}

#
# Check '+' is set for a given file/directory with 'ls [-v]' command
#
# $1 object -- file or directory.
#
function plus_sign_check_v #<obj>
{
typeset obj=$1
if (( ${#obj} == 0 )); then
return 1
fi

ls -vd $obj | awk '(NR == 1) {print $1}' | grep "+$" > /dev/null

return $?
}

```

```

}

#
# A wrapper function of c program
#
# $1 legal login name
# $2-n commands and options
#
function chgusr_exec #<login_name> <commands> [...]
{
    chg_usr_exec $@
    return $?
}

#
# Export the current user for the following usr_exec operating.
#
# $1 legal login name
#
function set_cur_usr #<login_name>
{
    export ZFS_ACL_CUR_USER=$1
}

#
# Run commands by $ZFS_ACL_CUR_USER
#
# $1-n commands and options
#
function usr_exec #<commands> [...]
{
    chg_usr_exec "$ZFS_ACL_CUR_USER" $@
    return $?
}

#
# Count how many ACEs for the specified file or directory.
#
# $1 file or directroy name
#
function count_ACE #<file or dir name>
{
    if [[ ! -e $1 ]]; then
        log_note "Need input file or directroy name."
        return 1
    fi

    ls -vd $1 | nawk 'BEGIN {count=0}'
}

```

```

(NR != 1)&&/([0-9]:/) {count++}
END {print count}'

return 0
}

#
# Get specified number ACE content of specified file or directory.
#
# $1 file or directory name
# $2 specified number
#
function get_ACE #<file or dir name> <specified number> <verbose|compact>
{
if [[ ! -e $1 || $2 -ge $(count_ACE $1) ]]; then
return 1
fi

typeset file=$1
typeset -i num=$2
typeset format=${3:-verbose}
typeset -i next_num=-1

typeset tmpfile=$TEST_BASE_DIR/tmp_get_ACE.$$
typeset line=""
typeset args

case $format in
verbose) args="-vd"
;;
compact) args="-Vd"
;;
*) log_fail "Invalid parameter as ($format), "\
"only verbose|compact is supported."
;;
esac

ls $args $file > $tmpfile
(( $? != 0 )) && log_fail "FAIL: ls $args $file > $tmpfile"
while read line; do
[[ -z $line ]] && continue
if [[ $args == -vd ]]; then
if [[ $line == "$num":* ]]; then
(( next_num = num + 1 ))
fi
if [[ $line == "$next_num":* ]]; then
break
fi

```

```

if (( next_num != -1 )); then
    print -n $line
fi
else
if (( next_num == num )); then
    print -n $line
fi
(( next_num += 1 ))
fi
done < $tmpfile

rm -f $tmpfile
(( $? != 0 )) && log_fail "FAIL: rm -f $tmpfile"
}

#
# Cleanup exist user/group.
#
function cleanup_user_group
{
del_user $ZFS_ACL_ADMIN

del_user $ZFS_ACL_STAFF1
del_user $ZFS_ACL_STAFF2
del_group $ZFS_ACL_STAFF_GROUP

del_user $ZFS_ACL_OTHER1
del_user $ZFS_ACL_OTHER2
del_group $ZFS_ACL_OTHER_GROUP

return 0
}

#
# Clean up testfile and test directory
#
function cleanup
{
if [[ -d $TESTDIR ]]; then
    cd $TESTDIR
    rm -rf $TESTDIR/*
fi
}

#
# According to specified access or acl_spec, do relevant operating by using the
# specified user.
#

```

```

# $1 specified user
# $2 node
# $3 acl_spec or access
#
function rwx_node #user node acl_spec|access
{
typeset user=$1
typeset node=$2
typeset acl_spec=$3

if [[ $user == "" || $node == "" || $acl_spec == "" ]]; then
log_note "node or acl_spec are not defined."
return 1
fi

if [[ -d $node ]]; then
case $acl_spec in
*:read_data:*|read_data)
chgsr_exec $user ls -l $node > /dev/null 2>&1
return $? ;;
*:write_data:*|write_data)
if [[ -f ${node}/tmpfile ]]; then
log_must rm -f ${node}/tmpfile
fi
chgsr_exec $user touch ${node}/tmpfile > \
/dev/null 2>&1
return $? ;;
*"execute:"*|execute)
chgsr_exec $user find $node > /dev/null 2>&1
return $? ;;
esac
else
case $acl_spec in
*:read_data:*|read_data)
chgsr_exec $user cat $node > /dev/null 2>&1
return $? ;;
*:write_data:*|write_data)
chgsr_exec $user dd if=/usr/bin/ls of=$node > \
/dev/null 2>&1
return $? ;;
*"execute:"*|execute)
ZFS_ACL_ERR_STR=$(chgsr_exec $user $node 2>&1)
return $? ;;
esac
fi
}

#

```

```

# Get the given file/directory xattr
#
# $1 object -- file or directory
#
function get_xattr #<obj>
{
    typeset obj=$1
    typeset xattr
    if (( ${#obj} == 0 )); then
        return 1
    fi

    for xattr in `runat $obj ls | \
        grep -E -v -e SUNWattr_ro -e SUNWattr_rw` ; do
        runat $obj sum $xattr
    done
}

#
# Get the owner of a file/directory
#
function get_owner #node
{
    typeset node=$1
    typeset value

    if [[ -z $node ]]; then
        log_fail "node are not defined."
    fi

    if [[ -d $node ]]; then
        value=$(ls -dl $node | awk '{print $3}')
    elif [[ -e $node ]]; then
        value=$(ls -l $node | awk '{print $3}')
    fi

    echo $value
}

#
# Get the group of a file/directory
#
function get_group #node
{
    typeset node=$1
    typeset value

    if [[ -z $node ]]; then

```

```

log_fail "node are not defined."
fi

if [[ -d $node ]]; then
value=$(ls -dl $node | awk '{print $4}')
elif [[ -e $node ]]; then
value=$(ls -l $node | awk '{print $4}')
fi

echo $value
}

#
# Get the group name that a UID belongs to
#
function get_user_group #uid
{
typeset uid=$1
typeset value

if [[ -z $uid ]]; then
log_fail "UID not defined."
fi

value=$(id $uid)

if [[ $? -eq 0 ]]; then
value=${value##*\({}
value=${value%%\)*}
echo $value
else
log_fail "Invalid UID (uid)."
fi
}

#
# Get the specified item of the specified string
#
# $1: Item number, count from 0.
# $2-n: strings
#
function getitem
{
typeset -i n=$1
shift

(( n += 1 ))

```



```

eval echo \${$n}
}

#
# This function calculate the specified directory files checksum and write
# to the specified array.
#
# $1 directory in which the files will be cksum.
# $2 file array name which was used to store file cksum information.
# $3 attribute array name which was used to store attribute information.
#
function cksum_files #<dir> <file_array_name> <attribute_array_name>
{
typeset dir=$1
typeset farr_name=$2
typeset aarr_name=$3

[[ ! -d $dir ]] && return
typeset oldpwd=$PWD
cd $dir
typeset files=$(ls file*)

typeset -i i=0
typeset -i n=0
while (( i < NUM_FILE )); do
typeset f=$(getitem $i $files)
eval $farr_name[$i]=\$(cksum $f)

typeset -i j=0
while (( j < NUM_ATTR )); do
eval $aarr_name[$n]=\$(runat \ $f \cksum \
attribute.$j)

((j += 1 ))
(( n += 1 ))
done

(( i += 1 ))
done

cd $oldpwd
}

#
# This function compare two cksum results array.
#
# $1 The array name which stored the cksum before operation.
# $2 The array name which stored the cksum after operation.

```

```

#
function compare_cksum #<array1> <array2>
{
typeset before=$1
typeset after=$2
eval typeset -i count=\${#before[@]}

typeset -i i=0
while (( i < count )); do
eval typeset var1=\${before[$i]}
eval typeset var2=\${after[$i]}

if [[ $var1 != $var2 ]]; then
return 1
fi

(( i += 1 ))
done

return 0
}

#
# This function calculate all the files cksum information in current directory
# and output them to the specified file.
#
# $1 directory from which the files will be cksum.
# $2 cksum output file
#
function record_cksum #<outfile>
{
typeset dir=$1
typeset outfile=$2

[[ ! -d ${outfile%/*} ]] && usr_exec mkdir -p ${outfile%/*}

usr_exec cd $dir ; find . -depth -type f -exec cksum {} \\\; | \
sort > $outfile
usr_exec cd $dir ; find . -depth -type f -xattr -exec runat {} \
cksum attribute* \\\; | sort >> $outfile
}

#
# The function create_files creates the directories and files that the script
# will operate on to test extended attribute functionality.
#
# $1 The base directory in which to create directories and files.
#

```

```

function create_files #<directory>
{
typeset basedir=$1

[[ ! -d $basedir ]] && usr_exec mkdir -m 777 $basedir
[[ ! -d $RES_DIR ]] && usr_exec mkdir -m 777 $RES_DIR
[[ ! -d $INI_DIR ]] && usr_exec mkdir -m 777 $INI_DIR
[[ ! -d $TST_DIR ]] && usr_exec mkdir -m 777 $TST_DIR
[[ ! -d $TMP_DIR ]] && usr_exec mkdir -m 777 $TMP_DIR

#
# Create the original file and its attribute files.
#
[[ ! -a $RES_DIR/file ]] && \
usr_exec file_write -o create -f $RES_DIR/file \
-b 1024 -d 0 -c 1
[[ ! -a $RES_DIR/attribute ]] && \
usr_exec cp $RES_DIR/file $RES_DIR/attribute

typeset oldpwd=$PWD
cd $INI_DIR

typeset -i i=0
while (( i < NUM_FILE )); do
typeset dstfile=$INI_DIR/file.$$.$i
usr_exec cp $RES_DIR/file $dstfile

typeset -i j=0
while (( j < NUM_ATTR )); do
usr_exec runat $dstfile \
cp $RES_DIR/attribute ./attribute.$j
((j += 1))
done

(( i += 1 ))
done

cd $oldpwd
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/acl_common.kshlib

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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_bookmark/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_offline_device.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_snapdev.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_clear/zpool_clear_readonly.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_volmode.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_remount.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_bookmark/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/add_nested_replacing_spare.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_zil.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_bookmark/zfs_bookmark_cliargs.ksh
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/setup.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_encrypted_load.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_errata3.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key_inherit.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key_pbkdf2iters.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/zfs_set_keylocation.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_encrypted.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_raw.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key_location.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_recursive.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_encrypted_child.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key_child.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/zfs_change-key_load.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_to_encrypted.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_file.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_to_encrypted.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_encrypted.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_from_encrypted.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_all.ksh

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_location.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unload-key/zfs_unload-key_all.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/zfs_load-key_noop.ksh
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xz/usr/include/libspl/sys/poll.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/signal.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/errno.h
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#

.$STF_SUITE/tests/functional/quota/quota.cfg

# BLOCK_SIZE, QUOTA_VALUE and TOLERANCE set in quota.cfg
if is_linux; then
  readonly EDQUOT=122
else
  readonly EDQUOT=49
fi

#
# Function to fill the quota of a zfs filesystem
```

```

#
# $1 - The File system or container to fill.
# $2 - The mountpoint to use.
#
function fill_quota
{
typeset FILESYSTEM="$1"
typeset MNTPT="$2"

log_must zfs set quota=$QUOTA_VALUE $FILESYSTEM

typeset -i write_size=0
(( write_size = 2 * QUOTA_VALUE ))

typeset -i zret=0
file_write -o create -f $MNTPT/$TESTFILE1 -b $BLOCK_SIZE \
-c $write_size -d 0
zret=$?
[[ $zret -ne $EDQUOT ]] && \
    log_fail "Returned error code: $zret. Expected: $EDQUOT."

typeset -i file_size=`ls -lsk $MNTPT/$TESTFILE1 | awk '{ print $1 }'^
typeset -i limit=0
(( file_size = file_size * 1024 ))
(( limit = QUOTA_VALUE + TOLERANCE ))
(( file_size > limit )) && \
    log_fail "File was created larger than the quota value, aborting!!!"
return 0
}

#
# Function attempts to write another file in a ZFS filesystem
# that has already filled its quota
#
function exceed_quota
{
typeset FILESYSTEM="$1"
typeset MNTPT="$2"

log_must fill_quota $FILESYSTEM $MNTPT
typeset -i write_size=0
(( write_size = 2 * QUOTA_VALUE ))
typeset -i zret=0
#
# Writing a file without API to access return code
#
log_note "Creating a file in a FS that has already exceeded its quota"
file_write -o create -f $MNTPT/$TESTFILE2 \

```

```
-b $BLOCK_SIZE -c $write_size -d 0
zret=$?
[[ $zret -ne $EDQUOT ]] && \
    log_fail "Returned error code: $zret. Expected: $EDQUOT."
return 0
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota.kshlib
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xz/usr/include/libzfs/sys/dmu_tx.h
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--
```

```
args = ...
argv = args["argv"]
fs = argv[1]
snap = argv[2]
```

```
function snapshot_recursive(root)
  assert(zfs.sync.snapshot(root .. "@" .. snap) == 0)
  for child in zfs.list.children(root) do
    snapshot_recursive(child)
  end
end
```

```
snapshot_recursive(fs)
```

```
Found in path(s):
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_recursive.zcp
```

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```
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_007_pos.ksh
```

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```

```
. $STF_SUITE/include/libtest.shlib
```

```
ZCP_ROOT=$STF_SUITE/tests/functional/channel_program
```

```
#
# Note: In case of failure (log_fail) in this function
# we delete the file passed as <input file> so the
# test suite doesn't leak temp files on failures. So it
# is expected that <input file> is a temp file and not
# an installed file.
#
# <exitcode> <expected error string> <input file> <zfs program args>
# e.g. log_program 0 "" tmp.7a12V $POOL foo.zcp arg1 arg2
function log_program
{
typeset expectexit=$1
shift
typeset expecterror=$1
shift
typeset tmpin=$1
shift
typeset cmdargs=$@ tmpout=$(mktemp) tmperr=$(mktemp)

# Expected output/error filename is the same as the .zcp name
typeset basename
if [[ $2 != "-" ]]; then
  basename=${2%.*}
fi

log_note "running: zfs program $cmdargs:"

zfs program $cmdargs >$tmpout 2>$tmperr
typeset ret=$?

log_note "input:\n$(cat $tmpin)"
log_note "output:\n$(cat $tmpout)"
log_note "error:\n$(cat $tmperr)"

#
```

```

# Verify correct return value
#
if [[ $ret -ne $expectexit ]]; then
    rm $tmpout $tmperr $tmpin
    log_fail "return mismatch: expected $expectexit, got $ret"
fi

#
# Check the output or reported error for successful or error returns,
# respectively.
#
if [[ -f "$basename.out" ]] && [[ $expectexit -eq 0 ]]; then

    outdiff=$(diff "$basename.out" "$tmpout")
    if [[ $? -ne 0 ]]; then
        output=$(<$tmpout)
        rm $tmpout $tmperr $tmpin
        log_fail "Output mismatch. Expected:\n" \
            "$(<$basename.out)\nBut got:\n$output\n" \
            "Diff:\n$outdiff"
    fi

elif [[ -f "$basename.err" ]] && [[ $expectexit -ne 0 ]]; then

    outdiff=$(diff "$basename.err" "$tmperr")
    if [[ $? -ne 0 ]]; then
        outputerror=$(<$tmperr)
        rm $tmpout $tmperr $tmpin
        log_fail "Error mismatch. Expected:\n" \
            "$(<$basename.err)\nBut got:\n$outputerror\n" \
            "Diff:\n$outdiff"
    fi

elif [[ -n $expecterror ]] && [[ $expectexit -ne 0 ]]; then

    grep -q "$expecterror" $tmperr
    if [[ $? -ne 0 ]]; then
        outputerror=$(<$tmperr)
        rm $tmpout $tmperr $tmpin
        log_fail "Error mismatch. Expected to contain:\n" \
            "$expecterror\nBut got:\n$outputerror\n"
    fi

elif [[ $expectexit -ne 0 ]]; then
    #
    # If there's no expected output, error reporting is allowed to
    # vary, but ensure that we didn't fail silently.
    #

```

```

if [[ -z "$(<$tmperr)" ]]; then
    rm $tmpout $tmperr $tmpin
    log_fail "error with no stderr output"
fi
fi

#
# Clean up all temp files except $tmpin which is
# reused for the second invocation of log_program.
#
rm $tmpout $tmperr
}

#
# Even though the command's arguments are passed correctly
# to the log_must_program family of wrappers the majority
# of the time, zcp scripts passed as HERE documents can
# make things trickier (see comment within the function
# below) in the ordering of the commands arguments and how
# they are passed. Thus, with this function we reconstruct
# them to ensure that they are passed properly.
#
function log_program_construct_args
{
    typeset tmpin=$1
    shift

    args=""
    i=0
    while getopts "nt:m:" opt; do
        case $opt in
            t) args="$args -t $OPTARG"; i=$((i + 2)) ;;
            m) args="$args -m $OPTARG"; i=$((i + 2)) ;;
            n) args="$args -n"; i=$((i + 1)) ;;
        esac
    done
    shift $i

    pool=$1
    shift

    #
    # Catch HERE document if it exists and save it within our
    # temp file. The reason we do this is that since the
    # log_must_program wrapper calls zfs-program twice (once
    # for open context and once for syncing) the HERE doc
    # is consumed in the first invocation and the second one
    # does not have a program to run.

```

```

#
test -s /dev/stdin && cat > $tmpin

#
# If $tmpin has contents it means that we consumed a HERE
# doc and $1 currently holds "-" (a dash). If there is no
# HERE doc and $tmpin is empty, then we copy the contents
# of the original channel program to $tmpin.
#
[[ -s $tmpin ]] || cp $1 $tmpin
shift

lua_args=$@

echo "$args $pool $tmpin $lua_args"
}

#
# Program should complete successfully
# when run in either context.
#
function log_must_program
{
typeset tmpin=$(mktemp)

program_args=$(log_program_construct_args $tmpin $@)

log_program 0 "" $tmpin "-n $program_args"
log_program 0 "" $tmpin "$program_args"

rm $tmpin
}
#
# Program should error as expected in
# the same way in both contexts.
#
function log_mustnot_checkerror_program
{
typeset expecterror=$1
shift
typeset tmpin=$(mktemp)

program_args=$(log_program_construct_args $tmpin $@)

log_program 1 "$expecterror" $tmpin "-n $program_args"
log_program 1 "$expecterror" $tmpin "$program_args"

rm $tmpin
}

```

```

}

#
# Program should fail when run in either
# context.
#
function log_mustnot_program
{
log_mustnot_checkerror_program "" "$@"
}

#
# Program should error as expected in
# open context but complete successfully
# in syncing context.
#
function log_mustnot_checkerror_program_open
{
typeset expecterror=$1
shift
typeset tmpin=$(mktemp)

program_args=$(log_program_construct_args $tmpin "$@")

log_program 1 "$expecterror" $tmpin "-n $program_args"
log_program 0 "" $tmpin "$program_args"

rm $tmpin
}

#
# Program should complete successfully
# when run in syncing context but fail
# when attempted to run in open context.
#
function log_must_program_sync
{
log_mustnot_checkerror_program_open "requires passing sync=TRUE" "$@"
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/channel_common.kshlib
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xz/usr/include/libzfs/sys/dsl_crypt.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/hkdf.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zio_crypt.h
```

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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_mixed_raw.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_multiple_copies.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_errata4.ksh
```

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xz/usr/include/libzfs/sys/sysevent/eventdefs.h
```

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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zfs_mount/zfs_mount.cfg

function force_unmount #dev
{
typeset dev=$1

ismounted $dev
if (( $? == 0 )); then
log_must zfs $unmountforce $dev
fi
return 0
}

# Create pool and ( fs | container | vol ) with the given parameters,
# it'll destroy prior exist one that has the same name.

function setup_filesystem #disklist #pool #fs #mntpoint #type #vdev
{
typeset disklist=$1
typeset pool=$2
typeset fs=${3##/}
typeset mntpoint=$4
typeset type=$5
typeset vdev=$6

if [[ -z $pool || -z $fs || -z $mntpoint ]]; then
log_note "Missing parameter: (\ "$pool", \ "$fs", \ "$mntpoint")"
return 1
fi

if is_global_zone && [[ -z $disklist ]]; then
log_note "Missing disklist."
return 1
fi

if [[ $vdev != "" && \
$vdev != "mirror" && \
$vdev != "raidz" ]]; then

log_note "Wrong vdev: (\ "$vdev")"
return 1
fi

poolexists $pool || \

```



```

create_pool $pool $vdev $disklist

datasetexists $pool/$fs && \
log_must cleanup_filesystem $pool $fs

rmdir $mntpoint > /dev/null 2>&1
if [[ ! -d $mntpoint ]]; then
log_must mkdir -p $mntpoint
fi

case "$type" in
'ctr') log_must zfs create -o mountpoint=$mntpoint $pool/$fs
;;
'vol') log_must zfs create -V $VOLSIZE $pool/$fs
block_device_wait
;;
*) log_must zfs create -o mountpoint=$mntpoint $pool/$fs
;;
esac

return 0
}

# Destroy ( fs | container | vol ) with the given parameters.
function cleanup_filesystem #pool #fs
{
typeset pool=$1
typeset fs=${2##/}
typeset mtpt=""

if [[ -z $pool || -z $fs ]]; then
log_note "Missing parameter: (\ "$pool", \ "$fs\ )"
return 1
fi

if datasetexists "$pool/$fs" ; then
mtpt=$(get_prop mountpoint "$pool/$fs")
log_must zfs destroy -r $pool/$fs

[[ -d $mtpt ]] && \
log_must rm -rf $mtpt
else
return 1
fi

return 0
}

```

Make sure 'zfs mount' should display all ZFS filesystems currently mounted.

The results of 'zfs mount' and 'df -F zfs' should be identical.

```
function verify_mount_display
```

```
{
```

```
typeset fs
```

```
for fs in $(zfs $mountcmd | awk '{print $1}'); do
```

```
log_must mounted $fs
```

```
done
```

```
return 0
```

```
}
```

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount.kshlib

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```

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--

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--

-- This program should work with LUAJ_MAXCCALLS=20

i = 0

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

if true then

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

end

i = i + 1

```
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
i = i + 1
end
return i
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.nested_pos.zcp
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xz/usr/share/zfs/zfs-tests/include/default.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_011_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/zpool_get_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/zpool_get_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback_001_pos.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/zpool_get_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/version_001_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs/zfs_001_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_003_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_inherit/zfs_inherit_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_004_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback_002_pos.ksh
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xz/usr/include/libzfs/sys/vdev RAIDZ impl.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/zfs_set_002_neg.ksh
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xz/usr/include/libzfs/zfs_comutil.h
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. $STF_SUITE/tests/functional/devices/devices.cfg
. $STF_SUITE/include/libtest.shlib

#
# Create block file or character file according to parameter.
#
# $1 device file type
# $2 file name
#
function create_dev_file
{
typeset filetype=$1
typeset filename=$2

case $filetype in
b)
if is_linux; then
major=$(awk '/[hsv]d/ { print $1; exit }' \
/proc/partitions)
minor=$(awk '/[hsv]d/ { print $2; exit }' \
/proc/partitions)
log_must mknod $filename b $major $minor
return 0

```


fi

```
devtype=$(df -n / | awk '{print $3}')
case $devtype in
zfs)
rootpool=$(df / | \
awk '{print $2}')
rootpool=${rootpool#\()}
rootpool=${rootpool%%/*}

devstr=$(get_disklist $rootpool)
devstr=$(echo "$devstr" | \
awk '{print $1}')
[[ -z $devstr ]] && \
log_fail "Can not get block device file."
devstr=$DEV_DSKDIR/${devstr}
;;
ufs)
#
# Get the existing block device file in current system.
# And bring out the first one.
#
devstr=$(df -lhF ufs | \
grep "^${DEV_DSKDIR}" | \
awk '{print $1}')
devstr=$(echo "$devstr" | \
awk '{print $1}')
[[ -z $devstr ]] && \
log_fail "Can not get block device file."
;;
*)
log_unsupported "Unsupported fstype " \
"for / ($devtype)," \
"only ufs|zfs is supported."
;;
esac

#
# Get the device file information. i.e:
# $DEV_DSKDIR/c0t0d0s0:    block special (28/768)
#
devstr=$(file $devstr)

#
# Bring out major and minor number.
#
major=${devstr##*\()}
major=${major%%/*}
```

```

minor=${devstr##*/}
minor=${minor%)}

log_must mknod $filename b $major $minor
;;
c)
#
# Create device file '/dev/null'
#
if is_linux; then
major=$(stat -c %t /dev/null)
minor=$(stat -c %T /dev/null)
log_must mknod $filename c $major $minor
else
log_must mknod $filename c $(getmajor mm) 2
fi
;;
*)
log_fail "'$filetype' is wrong."
;;
esac

return 0
}

function cleanup
{
log_must zfs set devices=on $TESTPOOL/$TESTFS
log_must rm -f $TESTDIR/$TESTFILE1
log_must rm -f $TESTDIR/$TESTFILE2
log_must rm -f $TESTDIR/$TESTFILE1.out
log_must rm -f $TESTDIR/$TESTFILE2.out
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/devices/devices_common.kshlib
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xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_online_001_pos.ksh

```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_features_005_pos.ksh
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xz/usr/include/libzfs/sys/zio_compress.h
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_001_pos.ksh

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--

-- This program should be invoked as "zfs program <pool> <prog> <fs> <snap>"

```
args = ...
```

```
argv = args["argv"]
```

```
assert(zfs.sync.snapshot(argv[1] .. "@" .. argv[2]) == 0)
```

```
snaps = { }
```

```
for s in zfs.list.snapshots(argv[1]) do
```

```
  table.insert(snaps, s)
```

```
end
```

```
assert(#snaps == 1)
```

```
assert(snaps[1] == (argv[1] .. "@" .. argv[2]))
```

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_simple.zcp

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xz/usr/share/zfs/zfs-tests/tests/functional/upgrade/upgrade_projectquota_001_pos.ksh
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xz/usr/include/libzfs/zfs_fletcher.h
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* Rohan Puri <rohan.puri15@gmail.com>
* Brian Behlendorf <behlendorf1@llnl.gov>
*/
```

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```
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xz/usr/include/libzfs/sys/zfs_ctldir.h
```

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```

```
[global]
```

```
filename_format=file$jobnum
group_reporting=1
fallocate=0
overwrite=0
thread=1
rw=randread
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bs=${BLOCKSIZE}
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}
```

[job]

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/fio/random_reads.fio
```

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*

* Tweaked Edon-R implementation for SUPERCOP, based on NIST API.

*

* \$Id: edonr.h 517 2013-02-17 20:34:39Z joern \$

*/

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--

-- ensure zfs.exists works as expected.

```
args = ...
```

```
argv = args['argv']
```

```
pool = argv[1]
```

```
for i = 1,4 do
```

```
  assert(zfs.exists(argv[i]))
```

```
end
```

```
assert(not zfs.exists(pool .. '/notadataset'))
```

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xz/usr/include/libzfs/sys/uberblock.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/dmu_zfetch.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/avl.h
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--
-- This program should be invoked as "zfs program <pool> <prog> foo bar"
```

```
arg = ...
argv = arg["argv"]
```

```
assert(#argv == 2)
assert(argv[1] == "foo")
assert(argv[2] == "bar")
```

```
return
```

Found in path(s):

```
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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/projectquota/projectquota.cfg

#
# reset the projectquota and delete temporary files
#
function cleanup_projectquota
{
if datasetexists $QFS; then
typeset mntp=$(get_prop mountpoint $QFS)

log_must zfs set projectquota@$PRJID1=none $QFS
log_must zfs set projectobjquota@$PRJID1=none $QFS
log_must zfs set projectquota@$PRJID2=none $QFS
log_must zfs set projectobjquota@$PRJID2=none $QFS
log_must chmod 0755 $mntp
fi

[[ -f $PRJFILE ]] && log_must rm -f $PRJFILE
[[ -d $PRJDIR ]] && log_must rm -rf $PRJDIR
[[ -d $PRJDIR1 ]] && log_must rm -rf $PRJDIR1
[[ -d $PRJDIR2 ]] && log_must rm -rf $PRJDIR2
[[ -d $PRJDIR3 ]] && log_must rm -rf $PRJDIR3
sync

return 0
}

function mkmount_writable
{
typeset fs=$1
typeset mntp=$(get_prop mountpoint $fs)
log_must chmod 0777 $mntp
}

function check_quota

```

```

{
typeset fs=$2
typeset prop=$1
typeset expected=$3
typeset value=$(get_prop $prop $fs)

if (($value != $expected)); then
    return 1
fi
}

function get_value
{
typeset prop_val
typeset prop=$1
typeset dataset=$2

prop_val=$(zfs get -H -p -o value $prop $dataset 2>/dev/null)
if [[ $? -ne 0 ]]; then
    log_note "Unable to get $prop property for dataset $dataset"
    return 1
fi

echo $prop_val
}

function project_obj_count
{
typeset fs=$1
typeset prj=$2
typeset cnt=$(zfs projectspace -oname,objused $fs |
    awk /$prj/{print $2}')
[[ "$cnt" == "-" ]] && cnt=0 || true
echo $cnt
}

```

Found in path(s):

```

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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_common.kshlib

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```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/libzfs_impl.h
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/range_tree.h

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/txg_impl.h

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_006_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/zpool_expand_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_001_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/fm/fs/zfs.h


```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/spa_boot.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/spa_checksum.h
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```

```
/*
* Interface declarations for Skein hashing.
* Source code author: Doug Whiting, 2008.
* This algorithm and source code is released to the public domain.
*
* The following compile-time switches may be defined to control some
* tradeoffs between speed, code size, error checking, and security.
*
* The "default" note explains what happens when the switch is not defined.
*
* SKEIN_DEBUG          -- make callouts from inside Skein code
*                       to examine/display intermediate values.
*                       [default: no callouts (no overhead)]
*
* SKEIN_ERR_CHECK      -- how error checking is handled inside Skein
*                       code. If not defined, most error checking
*                       is disabled (for performance). Otherwise,
*                       the switch value is interpreted as:
*                       0: use assert()   to flag errors
*                       1: return SKEIN_FAIL to flag errors
*/
/* Copyright 2013 Doug Whiting. This code is released to the public domain. */
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/skein.h
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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/reservation_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

xz/usr/share/zfs/zfs-tests/tests/functional/itime/itime_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_008_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_010_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_destroy/zpool_destroy_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_detach/zpool_detach_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/zfs_promote_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_010_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/zpool_status_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_history/zpool_history_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/share_mount_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_008_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs/zfs_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_online/zpool_online_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_all_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/onoffs_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/zpool_set_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/truncate_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/atime/atime_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/zpool_status_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_replace/zpool_replace_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_012_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool/zpool_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_online/zpool_online_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/ro_props_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/zfs_promote_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/user_property_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/user_property_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_all_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_offline/zpool_offline_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/zfs_promote_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/snapdir_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_reservation/zfs_reservation_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_attach/zpool_attach_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_reservation/zfs_reservation_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_011_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/posix/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_003_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cp_files/cp_files_001_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/trim/cleanup.ksh

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xz/usr/share/man/man5/zfs-events-5-gz/zfs-events.5
```

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#
. $STF_SUITE/tests/functional/atime/atime.cfg
. $STF_SUITE/include/libtest.shlib
#
# Check if the access time for specified file is updated.
#
# $1 Given an absolute path to a file name
```

```

#
# Return value:
# 0 -> The access time is updated.
# 1 -> The access time is not updated.
#
function check_atime_updated
{
typeset filename=$1

if is_linux; then
typeset before=$(stat -c %X $filename)
sleep 2
else
typeset before=$(ls -Eu $filename | awk '{print $7}')
fi

log_must cat $filename

if is_linux; then
typeset after=$(stat -c %X $filename)
else
typeset after=$(ls -Eu $filename | awk '{print $7}')
fi

if [[ $before != $after ]]; then
return 0
else
return 1
fi
}

function setup_snap_clone
{
if [ -d "$TESTPOOL/$TESTFS" ]; then
# No mountpoint case (default).
log_must touch $TESTPOOL/$TESTFS/$TESTFILE
else
# Create two file to verify snapshot.
log_must touch $TESTDIR/$TESTFILE
fi

create_snapshot $TESTPOOL/$TESTFS $TESTSNAP
create_clone $TESTPOOL/$TESTFS@$TESTSNAP $TESTPOOL/$TESTCLONE
}

function reset_atime
{
zfs inherit atime $TESTPOOL
}

```

```
zfs inherit atime $TESTPOOL/$TESTFS
zfs inherit atime $TESTPOOL/$TESTCLONE
zfs inherit relatime $TESTPOOL
zfs inherit relatime $TESTPOOL/$TESTFS
zfs inherit relatime $TESTPOOL/$TESTCLONE
}
```

```
function cleanup
{
destroy_clone $TESTPOOL/$TESTCLONE
destroy_snapshot $TESTPOOL/$TESTFS@$TESTSNAP
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/atime/atime_common.kshlib
```

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```
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```

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xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/luacore/tst.lib_table.lua
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/luacore/tst.lib_coroutine.lua
```



```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.lib_strings.lua
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.lib_base.lua
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#
```

```
.$STF_SUITE/include/libtest.shlib
```

```
set -A VALID_NAME_CHAR a b c d e f g h i j k l m n o p q r s t u v w x y z \
  0 1 2 3 4 5 6 7 8 9 ':' '!' ' ' '_'
set -A INVALID_NAME_CHAR A B C D E F G H I J K L M N O P Q R S T U V W X Y Z \
  '~' '!' '@' '#' '$' '%' '^' '&' '(' ')' '+' '=' '|' "\"' '{' '[' ']' \
  '}' ';' ':' '<' '>' '?' '/' ''
set -A ALL_CHAR ${VALID_NAME_CHAR[*]} ${INVALID_NAME_CHAR[*]}
```

```
#
# Firstly, set the property value to dataset. Then checking if the property
# value is equal with the expected value, according to the expected result.
```

```

#
# $1 property value
# $2 property name
# $3 dataset
# $4 expected result
#
function set_n_check_prop
{
typeset expect_value=$1
typeset prop=$2
typeset dataset=$3
typeset expect_result=${4:-true}

typeset old_value=""
typeset cur_value=""

[[ -n $prop ]] && old_value=$(get_prop $prop $dataset)

if [[ $expect_result == true ]]; then
[[ -z $prop || -z $dataset ]] && \
log_fail "property or dataset isn't defined."

log_must zfs set $prop=$expect_value $dataset
if [[ $expect_value == "gzip-6" ]]; then
expect_value="gzip"
fi

[[ -n $prop ]] && cur_value=$(get_prop $prop $dataset)

case $prop in
reservation|reserv|quota )
if [[ $expect_value == "none" ]]; then
[[ $cur_value != "0" ]] && \
log_fail "The '$dataset' '$prop' value \
'$cur_value' is not expected."
elif [[ $cur_value != $expect_value ]]; then
log_fail "The '$dataset' '$prop' value '$cur_value' \
does not equal the expected value '$expect_value'."
fi
;;
* )
if [[ $cur_value != $expect_value ]]; then
log_fail "The '$dataset' '$prop' value '$cur_value' \
does not equal the expected value '$expect_value'."
fi
;;
esac

```

```

else
log_mustnot zfs set $prop=$expect_value $dataset

[[ -n $prop ]] && cur_value=$(get_prop $prop $dataset)

wait_freeing

if [[ "$expect_value" != "" && "$cur_value" != "$old_value" ]];
then
log_fail "The '$dataset' '$prop' value '$cur_value' \
should equal with '$old_value'."
fi
fi
}

#
# Cleanup all the user properties of the pool and the dataset reside it.
#
# $1 pool name
#
function cleanup_user_prop
{
typeset pool=$1
typeset dtst=$(zfs list -H -r -o name -t filesystem,volume $pool)

typeset user_prop
for dt in $dtst; do
user_prop=$(zfs get -H -o property all $dtst | grep ":")

typeset prop
for prop in $user_prop; do
zfs inherit $prop $dt
(($? != 0)) && log_must zfs inherit $prop $dt
done
done
}

#
# Random select character from the specified character set and combine into a
# random string
#
# $1 character set name
# $2 String length
#
function random_string
{
typeset char_set=${1:-VALID_NAME_CHAR}
typeset -i len=${2:-5}

```

```

eval typeset -i count=\${#char_set[@]}

# No consumers want an empty string.
((len == 0)) && len=3

typeset str
typeset -i i=0
while ((i < len)); do
    typeset -i ind
    ((ind = RANDOM % count))
    eval str=\${str}\${char_set[\$ind]}

    ((i += 1))
done

echo "$str"
}

#
# Get valid user defined property name
#
# $1 user defined property name length
#
function valid_user_property
{
    typeset -i sumlen=${1:-10}
    ((sumlen < 2 )) && sumlen=2
    typeset -i len
    ((len = RANDOM % sumlen))
    typeset part1 part2

    while true; do
        part1="$(random_string VALID_NAME_CHAR $len)"
        if [[ "$part1" == "-"* ]]; then
            continue
        fi
        break
    done
    ((len = sumlen - (len + 1)))

    while true; do
        part2="$(random_string VALID_NAME_CHAR $len)"
        if [[ -z $part1 && -z $part2 ]]; then
            continue
        fi
        break
    done
}

```

```

echo "${part1}:${part2}"
}

#
# Get invalid user defined property name
#
# $1 user defined property name length
#
function invalid_user_property
{
typeset -i sumlen=${1:-10}
((sumlen == 0)) && sumlen=1
typeset -i len
((len = RANDOM % sumlen))

typeset part1 part2
while true; do
part1="$(random_string VALID_NAME_CHAR $len)"
((len = sumlen - len))
part2="$(random_string INVALID_NAME_CHAR $len)"

# Avoid $part1 is *.* and $part2 is "=*"
if [[ "$part1" == *"."* && "$part2" == "="* ]]; then
continue
fi
break
done

echo "${part1}${part2}"
}

#
# Get user property value
#
# $1 user defined property name length
#
function user_property_value
{
typeset -i len=${1:-100}

typeset value=$(random_string ALL_CHAR $len)

echo "$value"
}

#
# Check if the user property is identical to the expected value.

```

```

#
# $1 dataset
# $2 user property
# $3 expected value
#
function check_user_prop
{
typeset dtst=$1
typeset user_prop="$2"
typeset expect_value="$3"
typeset value=$(zfs get -p -H -o value "$user_prop" $dtst 2>&1)

if [[ "$expect_value" == "$value" ]]; then
return 0
else
return 1
fi
}

#
# Get source of the dataset
#
function get_source
{
typeset prop=$1
typeset dataset=$2
typeset source

source=$(zfs get -H -o source $prop $dataset)
if (($? != 0)); then
log_fail "Unable to get $prop source for dataset $dataset"
fi

echo "$source"
}

#
# Verify property $2 is set from source $4 on dataset $1 and has value $3.
#
# $1 checked dataset
# $2 user property
# $3 property value
# $4 source
#
# Returns: 0 if both expected source and value match, 1 otherwise
#
function check_prop_source
{

```

```

typeset dataset="$1"
typeset prop="$2"
typeset value="$3"
typeset source="$4"
typeset chk_value=$(get_prop "$prop" "$dataset")
typeset chk_source=$(get_source "$prop" "$dataset")

if [[ "$chk_value" != "$value" || "$chk_source" != "$4" ]]
then
    return 1
else
    return 0
fi
}

#
# Verify target dataset $1 inherit property $2 from dataset $3.
#
# $1 checked dataset
# $2 property
# $3 inherited dataset
#
# Returns: 0 if property has expected value and is inherited, 1 otherwise
#
function check_prop_inherit
{
    typeset checked_dtst="$1"
    typeset prop="$2"
    typeset inherited_dtst="$3"
    typeset inherited_value=$(get_prop "$prop" "$inherited_dtst")
    typeset value=$(get_prop "$prop" "$checked_dtst")
    typeset source=$(get_source "$prop" "$checked_dtst")

    if [[ "$value" != "$inherited_value" || \
        "$source" != "inherited from $inherited_dtst" ]]
    then
        return 1
    else
        return 0
    fi
}

#
# Verify property $2 received value on dataset $1 has value $3
#
# $1 checked dataset
# $2 property name
# $3 checked value

```

```

#
# Returns: 0 if property has expected value and is received, 1 otherwise
#
function check_prop_received
{
    typeset dataset="$1"
    typeset prop="$2"
    typeset value="$3"

    received=$(zfs get -H -o received "$prop" "$dataset")
    if (($? != 0)); then
        log_fail "Unable to get $prop received value for dataset " \
            "$dataset"
    fi
    if [[ "$received" == "$value" ]]
    then
        return 0
    else
        return 1
    fi
}

#
# Verify user property $2 is not set on dataset $1
#
# $1 checked dataset
# $2 property name
#
# Returns: 0 if property is missing (not set), 1 otherwise
#
function check_prop_missing
{
    typeset dataset="$1"
    typeset prop="$2"

    value=$(zfs get -H -o value "$prop" "$dataset")
    if (($? != 0)); then
        log_fail "Unable to get $prop value for dataset $dataset"
    fi
    if [[ "-" == "$value" ]]
    then
        return 0
    else
        return 1
    fi
}

```

Found in path(s):


```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/zfs_set_common.kshlib
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xz/usr/share/zfs/zfs-tests/tests/perf/regression/random_readwrite_fixed.ksh
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xz/usr/include/libzfs/sys/aggsum.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_005_neg.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_018_pos.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/zpool_set_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/zpool_export_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_022_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_destroy/zpool_destroy_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool/zpool_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/zpool_expand_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_012_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_destroy/zpool_destroy_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_021_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_014_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/canmount_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs/zfs_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/zpool_expand_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/canmount_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_015_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_008_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_020_pos.ksh

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```
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xz/usr/include/libzfs/sys/dnode.h
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```

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#

.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/delegate/delegate.cfg

#
# Cleanup exist user/group.
#
function cleanup_user_group
{
typeset i
for i in $STAFF1 $STAFF2 $OTHER1 $OTHER2 ; do
del_user $i
done
for i in $STAFF_GROUP $OTHER_GROUP ; do
del_group $i
done

return 0
}

#
# Restore test file system to the original status.
#
function restore_root_datasets
{
destroy_dataset "$ROOT_TESTFS" "-Rf"
log_must zfs create $ROOT_TESTFS

if is_global_zone ; then
destroy_dataset "$ROOT_TESTVOL" "-Rf"
log_must zfs create -V $VOLSIZE $ROOT_TESTVOL
block_device_wait
fi

return 0
}

#
# Verify the specified user have permission on the dataset
#
# $1 dataset
# $2 permissions which are separated by comma(,)
# $3-n users
#
function verify_perm

```

```

{
typeset dtst=$1
typeset permissions=$2
shift 2

if [[ -z $@ || -z $permissions || -z $dtst ]]; then
return 1
fi

typeset type=$(get_prop type $dtst)
permissions=$(echo $permissions | tr -s ", " " ")

typeset user
for user in $@; do
typeset perm
for perm in $permissions; do
typeset -i ret=1
if [[ $type == "filesystem" ]]; then
check_fs_perm $user $perm $dtst
ret=$?
elif [[ $type == "volume" ]]; then
check_vol_perm $user $perm $dtst
ret=$?
fi

log_note "Check $type $user $perm $dtst"
if ((ret != 0)) ; then
log_note "Fail: $user should have $perm " \
"on $dtst"
return 1
fi
done
done

return 0
}

#
# Verify the specified user have no permission on the dataset
#
# $1 dataset
# $2 permissions which are separated by comma(,)
# $3-n users
#
function verify_noperm
{
typeset dtst=$1
typeset permissions=$2

```

shift 2

```
if [[ -z $@ || -z $permissions || -z $dstst ]]; then  
    return 1  
fi
```

```
typeset type=$(get_prop type $dstst)  
permissions=$(echo $permissions | tr -s ", " " ")
```

```
typeset user  
for user in $@; do  
    typeset perm  
    for perm in $permissions; do  
        typeset -i ret=1  
        if [[ $type == "filesystem" ]]; then  
            check_fs_perm $user $perm $dstst  
            ret=$?  
        elif [[ $type == "volume" ]]; then  
            check_vol_perm $user $perm $dstst  
            ret=$?  
        fi
```

```
        if ((ret == 0)) ; then  
            log_note "Fail: $user should not have $perm " \  
                "on $dstst"  
            return 1  
        fi  
    done  
done
```

```
return 0  
}
```

```
function common_perm
```

```
{  
    typeset user=$1  
    typeset perm=$2  
    typeset dtst=$3
```

```
    typeset -i ret=1  
    case $perm in  
        send)  
            verify_send $user $perm $dstst  
            ret=$?  
            ;;  
        allow)  
            verify_allow $user $perm $dstst  
            ret=$?
```

```

;;
userprop)
verify_userprop $user $perm $dst
ret=$?
;;
compression|checksum|readonly)
verify_ccr $user $perm $dst
ret=$?
;;
copies)
verify_copies $user $perm $dst
ret=$?
;;
reservation)
verify_reservation $user $perm $dst
ret=$?
;;
*)
ret=1
;;
esac

```

```

return $ret
}

```

```

function check_fs_perm
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset -i ret=1
case $perm in
create)
verify_fs_create $user $perm $fs
ret=$?
;;
destroy)
verify_fs_destroy $user $perm $fs
ret=$?
;;
snapshot)
verify_fs_snapshot $user $perm $fs
ret=$?
;;
rollback)
verify_fs_rollback $user $perm $fs
ret=$?

```



```
;;
clone)
verify_fs_clone $user $perm $fs
ret=$?
;;
rename)
verify_fs_rename $user $perm $fs
ret=$?
;;
mount)
verify_fs_mount $user $perm $fs
ret=$?
;;
share)
verify_fs_share $user $perm $fs
ret=$?
;;
mountpoint)
verify_fs_mountpoint $user $perm $fs
ret=$?
;;
promote)
verify_fs_promote $user $perm $fs
ret=$?
;;
canmount)
verify_fs_canmount $user $perm $fs
ret=$?
;;
dnodesize)
verify_fs_dnodesize $user $perm $fs
ret=$?
;;
recordsize)
verify_fs_recordsize $user $perm $fs
ret=$?
;;
quota)
verify_fs_quota $user $perm $fs
ret=$?
;;
aclmode)
verify_fs_aclmode $user $perm $fs
ret=$?
;;
aclinherit)
verify_fs_aclinherit $user $perm $fs
ret=$?
```

```

;;
snapdir)
verify_fs_snapdir $user $perm $fs
ret=$?
;;
atime|exec|devices|setuid|xattr)
verify_fs_aedsx $user $perm $fs
ret=$?
;;
zoned)
verify_fs_zoned $user $perm $fs
ret=$?
;;
shareufs)
verify_fs_shareufs $user $perm $fs
ret=$?
;;
receive)
verify_fs_receive $user $perm $fs
ret=$?
;;
*)
common_perm $user $perm $fs
ret=$?
;;
esac

return $ret
}

function check_vol_perm
{
typeset user=$1
typeset perm=$2
typeset vol=$3

typeset -i ret=1
case $perm in
destroy)
verify_vol_destroy $user $perm $vol
ret=$?
;;
snapshot)
verify_vol_snapshot $user $perm $vol
ret=$?
;;
rollback)
verify_vol_rollback $user $perm $vol

```

```

ret=$?
;;
clone)
verify_vol_clone $user $perm $vol
ret=$?
;;
rename)
verify_vol_rename $user $perm $vol
ret=$?
;;
promote)
verify_vol_promote $user $perm $vol
ret=$?
;;
volsize)
verify_vol_volsize $user $perm $vol
ret=$?
;;
*)
common_perm $user $perm $vol
ret=$?
;;
esac

return $ret
}

function setup_unallow_testenv
{
log_must restore_root_datasets

log_must zfs create $SUBFS

for dtst in $DATASETS ; do
log_must zfs allow -l $STAFF1 $LOCAL_SET $dtst
log_must zfs allow -d $STAFF2 $DESC_SET $dtst
log_must zfs allow $OTHER1 $LOCAL_DESC_SET $dtst
log_must zfs allow $OTHER2 $LOCAL_DESC_SET $dtst

log_must verify_perm $dtst $LOCAL_SET $STAFF1
log_must verify_perm $dtst $LOCAL_DESC_SET $OTHER1
log_must verify_perm $dtst $LOCAL_DESC_SET $OTHER2
if [[ $dtst == $ROOT_TESTFS ]]; then
log_must verify_perm $SUBFS $DESC_SET $STAFF2
log_must verify_perm $SUBFS $LOCAL_DESC_SET $OTHER1
log_must verify_perm $SUBFS $LOCAL_DESC_SET $OTHER2
fi
done

```

```

return 0
}

#
# Verify permission send for specified user on the dataset
# $1 user
# $2 permission
# $3 dataset
#
function verify_send
{
typeset user=$1
typeset perm=$2
typeset dtst=$3

typeset oldval
typeset stamp=${perm}.${user}.$(date +%F-%T-%N')
typeset snap=$dtst@snap.$stamp

typeset -i ret=1

log_must zfs snapshot $snap
typeset bak_user=$TEST_BASE_DIR/bak.$user.$stamp
typeset bak_root=$TEST_BASE_DIR/bak.root.$stamp

user_run $user eval "zfs send $snap > $bak_user"
log_must eval "zfs send $snap > $bak_root"

if [[ $(checksum $bak_user) == $(checksum $bak_root) ]]; then
ret=0
fi

rm -rf $bak_user > /dev/null
rm -rf $bak_root > /dev/null

return $ret
}

function verify_fs_receive
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset dtst
typeset stamp=${perm}.${user}.$(date +%F-%T-%N')
typeset newfs=$fs/newfs.$stamp

```

```

typeset newvol=$fs/newvol.$stamp
typeset bak_user=$TEST_BASE_DIR/bak.$user.$stamp
typeset bak_root=$TEST_BASE_DIR/bak.root.$stamp

log_must zfs create $newfs
typeset datasets="$newfs"
if is_global_zone ; then
log_must zfs create -V $VOLSIZE $newvol
block_device_wait
datasets="$newfs $newvol"
fi

for dtst in $datasets ; do

typeset dtstsnap=$dtst@snap.$stamp
log_must zfs snapshot $dtstsnap

log_must eval "zfs send $dtstsnap > $bak_root"
log_must_busy zfs destroy -rf $dtst

user_run $user eval "zfs receive $dtst < $bak_root"
if datasetexists $dtstsnap ; then
return 1
fi

log_must zfs allow $user create $fs
user_run $user eval "zfs receive $dtst < $bak_root"
log_must zfs unallow $user create $fs
if datasetexists $dtstsnap ; then
return 1
fi

log_must zfs allow $user mount $fs
user_run $user eval "zfs receive $dtst < $bak_root"
log_must zfs unallow $user mount $fs
if datasetexists $dtstsnap ; then
return 1
fi

log_must zfs allow $user mount,create $fs
user_run $user eval "zfs receive $dtst < $bak_root"
log_must zfs unallow $user mount,create $fs
if ! datasetexists $dtstsnap ; then
return 1
fi

# check the data integrity
log_must eval "zfs send $dtstsnap > $bak_user"

```

```

log_must_busy zfs destroy -rf $dtst
log_must eval "zfs receive $dtst < $bak_root"
log_must eval "zfs send $dtstsnap > $bak_root"
log_must_busy zfs destroy -rf $dtst
if [[ $(checksum $bak_user) != $(checksum $bak_root) ]]; then
    return 1
fi

rm -rf $bak_user > /dev/null
rm -rf $bak_root > /dev/null

done

return 0
}

function verify_userprop
{
typeset user=$1
typeset perm=$2
typeset dtst=$3

typeset stamp=${perm}.${user}.${date +%F-%T-%N'}

user_run $user zfs set "$user:ts=$stamp" $dtst
if [[ $stamp != $(get_prop "$user:ts" $dtst) ]]; then
    return 1
fi

return 0
}

function verify_ccr
{
typeset user=$1
typeset perm=$2
typeset dtst=$3

typeset oldval

set -A modes "on" "off"
oldval=$(get_prop $perm $dtst)
if [[ $oldval == "on" ]]; then
    n=1
elif [[ $oldval == "off" ]]; then
    n=0
fi
log_note "$user zfs set $perm=${modes[$n]} $dtst"

```

```

user_run $user zfs set $perm=${modes[$n]} $dst
if [[ ${modes[$n]} != $(get_prop $perm $dst) ]]; then
    return 1
fi

```

```

return 0
}

```

```

function verify_copies

```

```

{
typeset user=$1
typeset perm=$2
typeset dst=$3

```

```

typeset oldval

```

```

set -A modes 1 2 3
oldval=$(get_prop $perm $dst)
if [[ $oldval -eq 1 ]]; then
    n=1
elif [[ $oldval -eq 2 ]]; then
    n=2
elif [[ $oldval -eq 3 ]]; then
    n=0
fi
log_note "$user zfs set $perm=${modes[$n]} $dst"
user_run $user zfs set $perm=${modes[$n]} $dst
if [[ ${modes[$n]} != $(get_prop $perm $dst) ]]; then
    return 1
fi

```

```

return 0
}

```

```

function verify_reservation

```

```

{
typeset user=$1
typeset perm=$2
typeset dst=$3

```

```

typeset value32m=$(( 1024 * 1024 * 32 ))
typeset oldval=$(get_prop reservation $dst)
user_run $user zfs set reservation=$value32m $dst
if [[ $value32m != $(get_prop reservation $dst) ]]; then
    log_must zfs set reservation=$oldval $dst
    return 1
fi

```

```

log_must zfs set reservation=$oldval $dst
return 0
}

function verify_fs_create
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
typeset newfs=$fs/nfs.$stamp
typeset newvol=$fs/nvol.$stamp

user_run $user zfs create $newfs
if datasetexists $newfs ; then
return 1
fi

log_must zfs allow $user mount $fs
user_run $user zfs create $newfs
log_must zfs unallow $user mount $fs
if ! datasetexists $newfs ; then
return 1
fi

log_must zfs destroy $newfs

if is_global_zone ; then
# mount permission is required for sparse volume
user_run $user zfs create -V 150m -s $newvol
block_device_wait
if datasetexists $newvol ; then
return 1
fi

log_must zfs allow $user mount $fs
user_run $user zfs create -V 150m -s $newvol
log_must zfs unallow $user mount $fs
if ! datasetexists $newvol ; then
return 1
fi

block_device_wait
log_must zfs destroy $newvol
block_device_wait

# mount and reservation permission are

```



```

# required for normal volume
user_run $user zfs create -V 150m $newvol
block_device_wait
if datasetexists $newvol ; then
    return 1
fi

log_must zfs allow $user mount $fs
user_run $user zfs create -V 150m $newvol
block_device_wait
log_must zfs unallow $user mount $fs
if datasetexists $newvol ; then
    return 1
fi

log_must zfs allow $user reservation $fs
user_run $user zfs create -V 150m $newvol
block_device_wait
log_must zfs unallow $user reservation $fs
if datasetexists $newvol ; then
    return 1
fi

log_must zfs allow $user refreservation $fs
user_run $user zfs create -V 150m $newvol
block_device_wait
log_must zfs unallow $user refreservation $fs
if datasetexists $newvol ; then
    return 1
fi

log_must zfs allow $user mount $fs
log_must zfs allow $user reservation $fs
log_must zfs allow $user refreservation $fs
user_run $user zfs create -V 150m $newvol
log_must zfs unallow $user mount $fs
log_must zfs unallow $user reservation $fs
log_must zfs unallow $user refreservation $fs
if ! datasetexists $newvol ; then
    return 1
fi

block_device_wait
log_must zfs destroy $newvol
block_device_wait
fi

return 0

```

```

}

function verify_fs_destroy
{
typeset user=$1
typeset perm=$2
typeset fs=$3

if ! ismounted $fs ; then
user_run $user zfs destroy $fs
if datasetexists $fs ; then
return 1
fi
fi

if ismounted $fs ; then
user_run $user zfs destroy $fs
if ! datasetexists $fs ; then
return 1
fi

# mount permission is required
log_must zfs allow $user mount $fs
user_run $user zfs destroy $fs
if datasetexists $fs ; then
return 1
fi
fi

return 0
}

# Verify that given the correct delegation, a regular user can:
# Take a snapshot of an unmounted dataset
# Take a snapshot of an mounted dataset
# Create a snapshot by making a directory in the .zfs/snapshot directory
function verify_fs_snapshot
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset stamp=${perm}.${user}.${date +%F-%T-%N}
typeset snap=$fs@snap.$stamp
typeset mntpt=$(get_prop mountpoint $fs)

if [[ "yes" == $(get_prop mounted $fs) ]]; then
log_must zfs umount $fs

```

```

fi

user_run $user zfs snapshot $snap
if ! datasetexists $snap ; then
    return 1
fi
log_must zfs destroy $snap

if [[ "no" == $(get_prop mounted $fs) ]]; then
    log_must zfs mount $fs
fi

user_run $user zfs snapshot $snap
if ! datasetexists $snap ; then
    return 1
fi
log_must zfs destroy $snap

typeset snapdir=${mntpt}/.zfs/snapshot/snap.$stamp
user_run $user mkdir $snapdir
if ! datasetexists $snap ; then
    return 1
fi
log_must zfs destroy $snap

return 0
}

function verify_fs_rollback
{
    typeset user=$1
    typeset perm=$2
    typeset fs=$3

    typeset oldval
    typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
    typeset snap=$fs@snap.$stamp
    typeset mntpt=$(get_prop mountpoint $fs)

    oldval=$(datasetcksum $fs)
    log_must zfs snapshot $snap

    if ! ismounted $fs; then
        log_must zfs mount $fs
    fi
    log_must touch $mntpt/testfile.$stamp

    user_run $user zfs rollback -R $snap

```

```

if is_global_zone ; then
  if [[ $oldval != $(datasetcksum $fs) ]]; then
    return 1
  fi
else
  # datasetcksum can not be used in local zone
  if [[ -e $mntpt/testfile.$stamp ]]; then
    return 1
  fi
fi

return 0
}

function verify_fs_clone
{
  typeset user=$1
  typeset perm=$2
  typeset fs=$3

  typeset stamp=${perm}.${user}.$(date +%F-%T-%N)
  typeset basefs=${fs%/*}
  typeset snap=$fs@snap.$stamp
  typeset clone=$basefs/cfs.$stamp

  log_must zfs snapshot $snap
  user_run $user zfs clone $snap $clone
  if datasetexists $clone ; then
    return 1
  fi

  log_must zfs allow $user create $basefs
  user_run $user zfs clone $snap $clone
  log_must zfs unallow $user create $basefs
  if datasetexists $clone ; then
    return 1
  fi

  log_must zfs allow $user mount $basefs
  user_run $user zfs clone $snap $clone
  log_must zfs unallow $user mount $basefs
  if datasetexists $clone ; then
    return 1
  fi

  log_must zfs allow $user mount $basefs
  log_must zfs allow $user create $basefs
  user_run $user zfs clone $snap $clone

```

```

log_must zfs unallow $user create $basefs
log_must zfs unallow $user mount $basefs
if ! datasetexists $clone ; then
    return 1
fi

log_must zfs destroy -R $snap

return 0
}

function verify_fs_rename
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
typeset basefs=${fs%/*}
typeset snap=$fs@snap.$stamp
typeset renamefs=$basefs/nfs.$stamp

if ! ismounted $fs; then
    log_must zfs mount $fs
fi

# case 1
user_run $user zfs rename $fs $renamefs
if datasetexists $renamefs ; then
    return 1
fi

# case 2
log_must zfs allow $user create $basefs
user_run $user zfs rename $fs $renamefs
log_must zfs unallow $user create $basefs
if datasetexists $renamefs ; then
    return 1
fi

# case 3
log_must zfs allow $user mount $basefs
user_run $user zfs rename $fs $renamefs
log_must zfs unallow $user mount $basefs
if datasetexists $renamefs ; then
    return 1
fi

```

```
# case 4
log_must zfs allow $user mount $fs
user_run $user zfs rename $fs $renamefs
if datasetexists $renamefs ; then
    log_must zfs unallow $user mount $renamefs
    return 1
fi
log_must zfs unallow $user mount $fs
```

```
# case 5
log_must zfs allow $user create $basefs
log_must zfs allow $user mount $fs
user_run $user zfs rename $fs $renamefs
log_must zfs unallow $user create $basefs
if datasetexists $renamefs ; then
    log_must zfs unallow $user mount $renamefs
    return 1
fi
log_must zfs unallow $user mount $fs
```

```
# case 6
log_must zfs allow $user mount $basefs
log_must zfs allow $user mount $fs
user_run $user zfs rename $fs $renamefs
log_must zfs unallow $user mount $basefs
if datasetexists $renamefs ; then
    log_must zfs unallow $user mount $renamefs
    return 1
fi
log_must zfs unallow $user mount $fs
```

```
# case 7
log_must zfs allow $user create $basefs
log_must zfs allow $user mount $basefs
user_run $user zfs rename $fs $renamefs
log_must zfs unallow $user mount $basefs
log_must zfs unallow $user create $basefs
if ! datasetexists $renamefs ; then
    return 1
fi
```

```
log_must zfs rename $renamefs $fs
```

```
return 0
}
```

```
function verify_fs_mount
{
```

```

typeset user=$1
typeset perm=$2
typeset fs=$3

typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
typeset mntpt=$(get_prop mountpoint $fs)
typeset newmntpt=$TEST_BASE_DIR/mnt.$stamp

if ismounted $fs ; then
    user_run $user zfs unmount $fs
    if ismounted $fs ; then
        return 1
    fi
fi

if ! ismounted $fs ; then
    log_must zfs set mountpoint=$newmntpt $fs
    log_must rm -rf $newmntpt
    log_must mkdir $newmntpt

    user_run $user zfs mount $fs
    if ismounted $fs ; then
        return 1
    fi

    # mountpoint's owner must be the user
    log_must chown $user $newmntpt
    user_run $user zfs mount $fs
    if ! ismounted $fs ; then
        return 1
    fi
    log_must zfs umount $fs
    log_must rm -rf $newmntpt
    log_must zfs set mountpoint=$mntpt $fs
fi

return 0
}

function verify_fs_share
{
typeset user=$1
typeset perm=$2
typeset fs=$3
typeset -i ret=0

svcadm enable -rs nfs/server
typeset stat=$(svcs -H -o STA nfs/server:default)

```

```

if [[ $stat != "ON" ]]; then
    log_fail "Could not enable nfs/server"
fi

log_must zfs set sharenfs=on $fs
zfs unshare $fs

user_run $user zfs share $fs
if ! is_shared $fs; then
    ret=1
fi

zfs unshare $fs
log_must zfs set sharenfs=off $fs

return $ret
}

function verify_fs_mountpoint
{
    typeset user=$1
    typeset perm=$2
    typeset fs=$3

    typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
    typeset mntpt=$(get_prop mountpoint $fs)
    typeset newmntpt=$TEST_BASE_DIR/mnt.$stamp

    if ! ismounted $fs ; then
        user_run $user zfs set mountpoint=$newmntpt $fs
        if [[ $newmntpt != \
$(get_prop mountpoint $fs) ]]; then
            return 1
        fi
        log_must zfs set mountpoint=$mntpt $fs
    fi

    if ismounted $fs ; then
        user_run $user zfs set mountpoint=$newmntpt $fs
        if [[ $mntpt != $(get_prop mountpoint $fs) ]]; then
            return 1
        fi
    fi

    # require mount permission when fs is mounted
    log_must zfs allow $user mount $fs
    user_run $user zfs set mountpoint=$newmntpt $fs
    log_must zfs unallow $user mount $fs
    if [[ $newmntpt != \

```



```

$(get_prop mountpoint $fs) ]] ; then
    return 1
fi
log_must zfs set mountpoint=$mntpt $fs
fi

return 0
}

function verify_fs_promote
{
    typeset user=$1
    typeset perm=$2
    typeset fs=$3

    typeset stamp=${perm}.${user}.$(date +%F-%T-%N)
    typeset basefs=${fs%/*}
    typeset snap=$fs@snap.$stamp
    typeset clone=$basefs/cfs.$stamp

    log_must zfs snapshot $snap
    log_must zfs clone $snap $clone
    log_must zfs promote $clone

    typeset fs_orig=$(get_prop origin $fs)
    typeset clone_orig=$(get_prop origin $clone)

    user_run $user zfs promote $fs
    # promote should fail if original fs does not have
    # promote permission
    if [[ $fs_orig != $(get_prop origin $fs) || \
        $clone_orig != $(get_prop origin $clone) ]]; then
        return 1
    fi

    log_must zfs allow $user promote $clone
    user_run $user zfs promote $fs
    log_must zfs unallow $user promote $clone
    if [[ $fs_orig != $(get_prop origin $fs) || \
        $clone_orig != $(get_prop origin $clone) ]]; then
        return 1
    fi

    log_must zfs allow $user mount $fs
    user_run $user zfs promote $fs
    log_must zfs unallow $user mount $fs
    if [[ $fs_orig != $(get_prop origin $fs) || \
        $clone_orig != $(get_prop origin $clone) ]]; then

```

```

return 1
fi

log_must zfs allow $user mount $fs
log_must zfs allow $user promote $clone
user_run $user zfs promote $fs
log_must zfs unallow $user promote $clone
log_must zfs unallow $user mount $fs
if [[ $snap != $(get_prop origin $clone) || \
  $clone_orig != $(get_prop origin $fs) ]]; then
  return 1
fi

return 0
}

function verify_fs_canmount
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset oldval
typeset stamp=${perm}.${user}.${date +%F-%T-%N'}

if ! ismounted $fs ; then
  set -A modes "on" "off"
  oldval=$(get_prop $perm $fs)
  if [[ $oldval == "on" ]]; then
    n=1
  elif [[ $oldval == "off" ]]; then
    n=0
  fi
  log_note "$user zfs set $perm=${modes[$n]} $fs"
  user_run $user zfs set $perm=${modes[$n]} $fs
  if [[ ${modes[$n]} != $(get_prop $perm $fs) ]]; then
    return 1
  fi
fi

# fs is mounted
if ismounted $fs ; then
  # property value does not change if
  # no mount permission
  set -A modes "on" "off"
  oldval=$(get_prop $perm $fs)
  if [[ $oldval == "on" ]]; then

```

```

n=1
elif [[ $oldval == "off" ]]; then
n=0
fi
log_note "$user zfs set $perm=${modes[$n]} $fs"
log_must zfs allow $user mount $fs
user_run $user zfs set $perm=${modes[$n]} $fs
log_must zfs unallow $user mount $fs
if [[ ${modes[$n]} != $(get_prop $perm $fs) ]]; then
return 1
fi
fi
}

return 0
}

```

```

function verify_fs_recordsize
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset value8k=$(( 1024 * 8 ))
user_run $user zfs set recordsize=$value8k $fs
if [[ $value8k != $(get_prop recordsize $fs) ]]; then
return 1
fi

return 0
}

```

```

function verify_fs_dnodesize
{
typeset user=$1
typeset perm=$2
typeset fs=$3
value="2k"

user_run $user zfs set dnodesize=$value $fs
if [[ $value != $(get_prop dnodesize $fs) ]]; then
return 1
fi

return 0
}

```

```

function verify_fs_quota
{

```

```

typeset user=$1
typeset perm=$2
typeset fs=$3

typeset value32m=$(( 1024 * 1024 * 32 ))
user_run $user zfs set quota=$value32m $fs
if [[ $value32m != $(get_prop quota $fs) ]]; then
    return 1
fi

return 0
}

function verify_fs_aclmode
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset oldval
set -A modes "discard" "groupmask" "passthrough"
oldval=$(get_prop $perm $fs)
if [[ $oldval == "discard" ]]; then
    n=1
elif [[ $oldval == "groupmask" ]]; then
    n=2
elif [[ $oldval == "passthrough" ]]; then
    n=0
fi
log_note "$user zfs set aclmode=${modes[$n]} $fs"
user_run $user zfs set aclmode=${modes[$n]} $fs
if [[ ${modes[$n]} != $(get_prop aclmode $fs) ]]; then
    return 1
fi

return 0
}

function verify_fs_aclinherit
{
typeset user=$1
typeset perm=$2
typeset fs=$3

#
# PSARC/2008/231 change the default value of aclinherit to "restricted"
# but still keep the old interface of "secure"
#

```

```

typeset oldval
set -A modes "discard" "noallow" "secure" "passthrough"
oldval=$(get_prop $perm $fs)
if [[ $oldval == "discard" ]]; then
    n=1
elif [[ $oldval == "noallow" ]]; then
    n=2
elif [[ $oldval == "secure" || $oldval == "restricted" ]]; then
    n=3
elif [[ $oldval == "passthrough" ]]; then
    n=0
fi
log_note "$user zfs set aclinherit=${modes[$n]} $fs"
user_run $user zfs set aclinherit=${modes[$n]} $fs

typeset newval=$(get_prop aclinherit $fs)
if [[ ${modes[$n]} == "secure" && $newval == "restricted" ]]; then
    return 0
elif [[ ${modes[$n]} != $(get_prop aclinherit $fs) ]]; then
    return 1
fi

return 0
}

function verify_fs_snapdir
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset oldval
set -A modes "visible" "hidden"
oldval=$(get_prop $perm $fs)
if [[ $oldval == "visible" ]]; then
    n=1
elif [[ $oldval == "hidden" ]]; then
    n=0
fi
log_note "$user zfs set snapdir=${modes[$n]} $fs"
user_run $user zfs set snapdir=${modes[$n]} $fs
if [[ ${modes[$n]} != $(get_prop snapdir $fs) ]]; then
    return 1
fi

return 0
}

```

```

function verify_fs_aedrx
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset oldval
set -A modes "on" "off"
oldval=$(get_prop $perm $fs)
if [[ $oldval == "on" ]]; then
n=1
elif [[ $oldval == "off" ]]; then
n=0
fi
log_note "$user zfs set $perm=${modes[$n]} $fs"
user_run $user zfs set $perm=${modes[$n]} $fs
if [[ ${modes[$n]} != $(get_prop $perm $fs) ]]; then
return 1
fi

return 0
}

```

```

function verify_fs_zoned
{
typeset user=$1
typeset perm=$2
typeset fs=$3

typeset oldval
set -A modes "on" "off"
oldval=$(get_prop $perm $fs)
if [[ $oldval == "on" ]]; then
n=1
elif [[ $oldval == "off" ]]; then
n=0
fi
log_note "$user zfs set $perm=${modes[$n]} $fs"
if is_global_zone ; then
if ! ismounted $fs ; then
user_run $user zfs set \
$perm=${modes[$n]} $fs
if [[ ${modes[$n]} != \
$(get_prop $perm $fs) ]]; then
return 1
fi
if [[ $n -eq 0 ]]; then

```

```

log_mustnot zfs mount $fs
else
log_must zfs mount $fs
fi
fi

if ismounted $fs; then
# n always is 1 in this case
user_run $user zfs set \
$perm=${modes[$n]} $fs
if [[ $oldval != \
$(get_prop $perm $fs) ]]; then
return 1
fi

# mount permission is needed
# to make zoned=on
log_must zfs allow $user mount $fs
user_run $user zfs set \
$perm=${modes[$n]} $fs
log_must zfs unallow $user mount $fs
if [[ ${modes[$n]} != \
$(get_prop $perm $fs) ]]; then
return 1
fi
fi
fi

if ! is_global_zone; then
user_run $user zfs set $perm=${modes[$n]} $fs
if [[ $oldval != $(get_prop $perm $fs) ]]; then
return 1
fi
fi

return 0
}

function verify_fs_sharenfs
{
typeset user=$1
typeset perm=$2
typeset fs=$3
typeset nmode omode

omode=$(get_prop $perm $fs)
if [[ $omode == "off" ]]; then
nmode="on"

```

```

else
  nmode="off"
fi

log_note "$user zfs set $perm=$nmode $fs"
user_run $user zfs set $perm=$nmode $fs
if [[ $(get_prop $perm $fs) != $nmode ]]; then
  return 1
fi

log_note "$user zfs set $perm=$omode $fs"
user_run $user zfs set $perm=$omode $fs
if [[ $(get_prop $perm $fs) != $omode ]]; then
  return 1
fi

return 0
}

function verify_vol_destroy
{
  typeset user=$1
  typeset perm=$2
  typeset vol=$3

  user_run $user zfs destroy $vol
  if ! datasetexists $vol ; then
    return 1
  fi

  # mount permission is required
  log_must zfs allow $user mount $vol
  user_run $user zfs destroy $vol
  if datasetexists $vol ; then
    return 1
  fi

  return 0
}

function verify_vol_snapshot
{
  typeset user=$1
  typeset perm=$2
  typeset vol=$3

  typeset stamp=${perm}.${user}.${date +%F-%T-%N'}
  typeset basevol=${vol%/*}

```



```

typeset snap=$vol@snap.$stamp

user_run $user zfs snapshot $snap
if datasetexists $snap ; then
  return 1
fi

log_must zfs allow $user mount $vol
user_run $user zfs snapshot $snap
log_must zfs unallow $user mount $vol
if ! datasetexists $snap ; then
  return 1
fi

return 0
}

function verify_vol_rollback
{
  typeset user=$1
  typeset perm=$2
  typeset vol=$3

  typeset stamp=${perm}.${user}.${date+%F-%T-%N}
  typeset basevol=${vol%/*}
  typeset snap=$vol@snap.$stamp

  typeset oldval
  log_must zfs snapshot $snap
  oldval=$(datasetcksum $vol)

  log_must dd if=/dev/urandom of=$ZVOL_RDEVDIR/$vol \
  bs=512 count=1

  user_run $user zfs rollback -R $snap
  sleep 10
  if [[ $oldval == $(datasetcksum $vol) ]]; then
    return 1
  fi

  # rollback on volume has to be with mount permission
  log_must zfs allow $user mount $vol
  user_run $user zfs rollback -R $snap
  sleep 10
  log_must zfs unallow $user mount $vol
  if [[ $oldval != $(datasetcksum $vol) ]]; then
    return 1
  fi
}

```

```

return 0
}

function verify_vol_clone
{
typeset user=$1
typeset perm=$2
typeset vol=$3

typeset stamp=${perm}.${user}.${date+'%F-%T-%N'}
typeset basevol=${vol%/*}
typeset snap=$vol@snap.$stamp
typeset clone=$basevol/cvol.$stamp

log_must zfs snapshot $snap

user_run $user zfs clone $snap $clone
if datasetexists $clone ; then
return 1
fi

log_must zfs allow $user create $basevol
user_run $user zfs clone $snap $clone
log_must zfs unallow $user create $basevol
if datasetexists $clone ; then
return 1
fi

log_must zfs allow $user mount $basevol
user_run $user zfs clone $snap $clone
log_must zfs unallow $user mount $basevol
if datasetexists $clone ; then
return 1
fi

# require create permission on parent and
# mount permission on itself as well
log_must zfs allow $user mount $basevol
log_must zfs allow $user create $basevol
user_run $user zfs clone $snap $clone
log_must zfs unallow $user create $basevol
log_must zfs unallow $user mount $basevol
if ! datasetexists $clone ; then
return 1
fi

return 0
}

```

```

}

function verify_vol_rename
{
typeset user=$1
typeset perm=$2
typeset vol=$3

typeset stamp=${perm}.${user}.${date+'%F-%T-%N'}
typeset basevol=${vol%/*}
typeset snap=$vol@snap.$stamp
typeset clone=$basevol/cvol.$stamp
typeset renamevol=$basevol/nvol.$stamp

user_run $user zfs rename $vol $renamevol
if datasetexists $renamevol ; then
return 1
fi

log_must zfs allow $user create $basevol
user_run $user zfs rename $vol $renamevol
log_must zfs unallow $user create $basevol
if datasetexists $renamevol ; then
return 1
fi

log_must zfs allow $user mount $basevol
user_run $user zfs rename $vol $renamevol
log_must zfs unallow $user mount $basevol
if datasetexists $renamevol ; then
return 1
fi

# require both create permission on parent and
# mount permission on parent as well
log_must zfs allow $user mount $basevol
log_must zfs allow $user create $basevol
user_run $user zfs rename $vol $renamevol
log_must zfs unallow $user mount $basevol
log_must zfs unallow $user create $basevol
if ! datasetexists $renamevol ; then
return 1
fi

log_must zfs rename $renamevol $vol

return 0
}

```

```

function verify_vol_promote
{
typeset user=$1
typeset perm=$2
typeset vol=$3

typeset stamp=${perm}.${user}.${date+'%F-%T-%N'}
typeset basevol=${vol%/*}
typeset snap=$vol@snap.$stamp
typeset clone=$basevol/cvol.$stamp

log_must zfs snapshot $snap
log_must zfs clone $snap $clone
log_must zfs promote $clone

typeset vol_orig=$(get_prop origin $vol)
typeset clone_orig=$(get_prop origin $clone)

# promote should fail if $vol and $clone
# miss either mount or promote permission
# case 1
user_run $user zfs promote $vol
if [[ $vol_orig != $(get_prop origin $vol) || \
$clone_orig != $(get_prop origin $clone) ]];
then
return 1
fi

# promote should fail if $vol and $clone
# miss either mount or promote permission
# case 2
log_must zfs allow $user promote $clone
user_run $user zfs promote $vol
log_must zfs unallow $user promote $clone
if [[ $vol_orig != $(get_prop origin $vol) || \
$clone_orig != $(get_prop origin $clone) ]];
then
return 1
fi

# promote should fail if $vol and $clone
# miss either mount or promote permission
# case 3
log_must zfs allow $user mount $vol
user_run $user zfs promote $vol
log_must zfs unallow $user mount $vol
if [[ $vol_orig != $(get_prop origin $vol) || \

```

```
$clone_orig != $(get_prop origin $clone) ]];  
then  
return 1  
fi
```

```
# promote should fail if $vol and $clone  
# miss either mount or promote permission  
# case 4  
log_must zfs allow $user mount $clone  
user_run $user zfs promote $vol  
log_must zfs unallow $user mount $clone  
if [[ $vol_orig != $(get_prop origin $vol) || \  
$clone_orig != $(get_prop origin $clone) ]];  
then  
return 1  
fi
```

```
# promote should fail if $vol and $clone  
# miss either mount or promote permission  
# case 5  
log_must zfs allow $user promote $clone  
log_must zfs allow $user mount $vol  
user_run $user zfs promote $vol  
log_must zfs unallow $user promote $clone  
log_must zfs unallow $user mount $vol  
if [[ $vol_orig != $(get_prop origin $vol) || \  
$clone_orig != $(get_prop origin $clone) ]];  
then  
return 1  
fi
```

```
# promote should fail if $vol and $clone  
# miss either mount or promote permission  
# case 6  
log_must zfs allow $user promote $clone  
log_must zfs allow $user mount $clone  
user_run $user zfs promote $vol  
log_must zfs unallow $user promote $clone  
log_must zfs unallow $user mount $vol  
if [[ $vol_orig != $(get_prop origin $vol) || \  
$clone_orig != $(get_prop origin $clone) ]];  
then  
return 1  
fi
```

```
# promote should fail if $vol and $clone  
# miss either mount or promote permission  
# case 7
```

```

log_must zfs allow $user mount $vol
log_must zfs allow $user mount $clone
user_run $user zfs promote $vol
log_must zfs unallow $user mount $vol
log_must zfs unallow $user mount $clone
if [[ $vol_orig != $(get_prop origin $vol) || \
  $clone_orig != $(get_prop origin $clone) ]];
then
  return 1
fi

# promote only succeeds when $vol and $clone
# have both mount and promote permission
# case 8
log_must zfs allow $user promote $clone
log_must zfs allow $user mount $vol
log_must zfs allow $user mount $clone
user_run $user zfs promote $vol
log_must zfs unallow $user promote $clone
log_must zfs unallow $user mount $vol
log_must zfs unallow $user mount $clone
if [[ $snap != $(get_prop origin $clone) || \
  $clone_orig != $(get_prop origin $vol) ]]; then
  return 1
fi

return 0
}

function verify_vol_volsize
{
  typeset user=$1
  typeset perm=$2
  typeset vol=$3

  typeset oldval
  oldval=$(get_prop volsize $vol)
  (( newval = oldval * 2 ))

  reserv_size=$(get_prop refreservation $vol)

  if [[ "0" == $reserv_size ]]; then
    # sparse volume
    user_run $user zfs set volsize=$newval $vol
    if [[ $oldval == $(get_prop volsize $vol) ]];
    then
      return 1
    fi
  fi
}

```

```

else
# normal volume, reservation permission
# is required
user_run $user zfs set volsize=$newval $vol
if [[ $newval == $(get_prop volsize $vol) ]];
then
return 1
fi

log_must zfs allow $user reservation $vol
log_must zfs allow $user refreservation $vol
user_run $user zfs set volsize=$newval $vol
log_must zfs unallow $user reservation $vol
log_must zfs unallow $user refreservation $vol
if [[ $oldval == $(get_prop volsize $vol) ]];
then
return 1
fi
fi

return 0
}

function verify_allow
{
typeset user=$1
typeset perm=$2
typeset dtst=$3

typeset -i ret

user_run $user zfs allow $user allow $dtst
ret=$?
if [[ $ret -eq 0 ]]; then
return 1
fi

log_must zfs allow $user copies $dtst
user_run $user zfs allow $user copies $dtst
ret=$?
log_must zfs unallow $user copies $dtst
if [[ $ret -eq 1 ]]; then
return 1
fi

return 0
}

```

}

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/removal/cleanup.ksh

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_014_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_015_pos.ksh
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xz/usr/include/libzfs/sys/dmu.h
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xz/usr/share/zfs/zfs-tests/tests/functional/mmap/mmap_libaio_001_pos.ksh
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#
```

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```

```
[global]
```

```
filename_format=file$jobnum
nrfiles=16
group_reporting=1
fallocate=0
overwrite=0
thread=1
rw=randrw
rwmixread=70
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bs=${BLOCKSIZE}
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}
buffer_compress_percentage=66
buffer_compress_chunk=4096
```

[job]

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xz/usr/share/zfs/zfs-tests/tests/perf/fio/random_readwrite_fixed.fio
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade_001_pos.ksh
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#  
  
. $STF_SUITE/include/libtest.shlib  
. $STF_SUITE/tests/functional/clean_mirror/default.cfg  
  
function overwrite_verify_mirror  
{  
    typeset AFFECTED_DEVICE=$1  
    typeset OVERWRITING_DEVICE=$2  
  
    typeset atfile=0  
    set -A files  
    set -A cksums
```

```

set -A newcksums

while (( atfile < FILE_COUNT )); do
files[$atfile]=$TESTDIR/file.$atfile
log_must file_write -o create -f $TESTDIR/file.$atfile \
-b $FILE_SIZE -c 1
cksums[$atfile]=$(cksum ${files[$atfile]})
(( atfile = atfile + 1 ))
done

# dd the affected side of the mirror
log_must dd if=$OVERWRITING_DEVICE of=$AFFECTED_DEVICE \
seek=8 bs=$DD_BLOCK count=$(( DD_COUNT - 128 )) conv=notrunc

atfile=0

#
# Flush out the cache so that we ensure we're reading from disk.
#
log_must zpool export $TESTPOOL
log_must zpool import -d $SIDE_DIR $TESTPOOL

typeset -i failedcount=0
while (( atfile < FILE_COUNT )); do
files[$atfile]=$TESTDIR/file.$atfile
newcksum=$(cksum ${files[$atfile]})
if [[ $newcksum != ${cksums[$atfile]} ]]; then
(( failedcount = failedcount + 1 ))
fi
rm -f ${files[$atfile]}
(( atfile = atfile + 1 ))
done

if (( $failedcount > 0 )); then
log_fail "of the $FILE_COUNT files $failedcount did not " \
"have the same checksum before and after."
fi

log_must zpool scrub $TESTPOOL
log_must wait_scrubbed $TESTPOOL
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/clean_mirror_common.kshlib
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```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_formd_delete.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_formd_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/insensitive_none_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/sensitive_formd_delete.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_none_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/insensitive_none_delete.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/case_all_values.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/sensitive_formd_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/sensitive_none_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/sensitive_none_delete.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_none_lookup_ci.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_none_delete.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/mixed_formd_lookup_ci.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/insensitive_formd_lookup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/insensitive_formd_delete.ksh

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```

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#

export REMOVEDISK=${DISKS%% *}
export NOTREMOVEDISK=${DISKS##* }

#
# Waits for the pool to finish a removal.
#
function wait_for_removal # pool
{
typeset pool=$1
typeset callback=$2

while is_pool_removing $pool; do
sleep 1
done

#
# The pool state changes before the TXG finishes syncing; wait for
# the removal to be completed on disk.
#
sync_pool

log_must is_pool_removed $pool
return 0
}

#
# Removes the specified disk from its respective pool and
# runs the callback while the removal is in progress.
#

```



```

# This function is mainly used to test how other operations
# interact with device removal. After the callback is done,
# the removal is unpaused and we wait for it to finish.
#
# Example usage:
#
# attempt_during_removal $TESTPOOL $DISK dd if=/dev/urandom \
#   of=/$TESTPOOL/file count=1
#
function attempt_during_removal # pool disk callback [args]
{
typeset pool=$1
typeset disk=$2
typeset callback=$3

shift 3
set_tunable32 zfs_removal_suspend_progress 1

log_must zpool remove $pool $disk

#
# We want to make sure that the removal started
# before issuing the callback.
#
sync
log_must is_pool_removing $pool

log_must $callback "$@"

#
# Ensure that we still haven't finished the removal
# as expected.
#
log_must is_pool_removing $pool

set_tunable32 zfs_removal_suspend_progress 0

log_must wait_for_removal $pool
log_mustnot vdevs_in_pool $pool $disk
return 0
}

function indirect_vdev_mapping_size # pool
{
typeset pool=$1
zdb -P $pool | grep 'indirect vdev' | \
  sed -E 's/.*\(([0-9]+\) in memory\).*\1/g'
}

```

```

function random_write # file write_size
{
typeset file=$1
typeset block_size=$2
typeset file_size=$(stat -c%s $file 2>/dev/null)
typeset nblocks=$((file_size / block_size))

[[ -w $file ]] || return 1

dd if=/dev/urandom of=$file conv=notrunc \
    bs=$block_size count=1 seek=$((RANDOM % nblocks)) >/dev/null 2>&1
}

function start_random_writer # file
{
typeset file=$1
(
log_note "Starting writer for $file"
# This will fail when we destroy the pool.
while random_write $file $((2**12)); do
:
done
log_note "Stopping writer for $file"
) &
}

function test_removal_with_operation # callback [args]
{
#
# To ensure that the removal takes a while, we fragment the pool
# by writing random blocks and continue to do during the removal.
#
log_must mkfile 1g $TESTDIR/$TESTFILE0
for i in $(seq $((2**10))); do
random_write $TESTDIR/$TESTFILE0 $((2**12)) || \
    log_fail "Could not write to $TESTDIR/$TESTFILE0."
done
start_random_writer $TESTDIR/$TESTFILE0 1g
killpid=$!

log_must attempt_during_removal $TESTPOOL $REMOVEDISK "$@"
log_mustnot vdevs_in_pool $TESTPOOL $REMOVEDISK
log_must zdb -cd $TESTPOOL

kill $killpid
wait

```

```
verify_pool $TESTPOOL
```

```
}
```

```
#
```

```
# Kill the background job use by the test_removal_with_operation function.
```

```
#
```

```
function test_removal_with_operation_kill
```

```
{
```

```
kill $killpid
```

```
wait $killpid
```

```
return 0
```

```
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal.kshlib
```

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```
# This is a script with common functions etc used by zfs-import, zfs-mount,
```

```
# zfs-share and zfs-zed.
```

```
#
```

```
# It is NOT to be called independently
```

```
#
```

```
# Released under the 2-clause BSD license.
```

```
#
```

```
# The original script that acted as a template for this script came from
```

```
# the Debian GNU/Linux kFreeBSD ZFS packages (which did not include a
```

```
# licensing stanza) in the commit dated Mar 24, 2011:
```

```
# https://github.com/zfsonlinux/pkg-zfs/commit/80a3ae582b59c0250d7912ba794dca9e669e605a
```

```
PATH=/sbin:/bin:/usr/bin:/usr/sbin
```

```
# Source function library
```

```
if [ -f /etc/rc.d/init.d/functions ]; then
```

```
# RedHat and derivatives
```

```
./etc/rc.d/init.d/functions
```

```
elif [ -L /etc/init.d/functions.sh ]; then
```

```
# Gentoo
```

```
./etc/init.d/functions.sh
```

```
elif [ -f /lib/lsb/init-functions ]; then
```

```
# LSB, Debian GNU/Linux and derivatives
```

```
./lib/lsb/init-functions
```

```
fi
```

```
# Of course the functions we need are called differently
```

```
# on different distributions - it would be way too easy
```

```
# otherwise!!
```

```
if type log_failure_msg > /dev/null 2>&1 ; then
```

```

# LSB functions - fall through
zfs_log_begin_msg() { log_begin_msg "$1"; }
zfs_log_end_msg() { log_end_msg "$1"; }
zfs_log_failure_msg() { log_failure_msg "$1"; }
zfs_log_progress_msg() { log_progress_msg "$1"; }
elif type success > /dev/null 2>&1 ; then
# Fedora/RedHat functions
zfs_set_ifs() {
# For some reason, the init function library have a problem
# with a changed IFS, so this function goes around that.
local tIFS="$1"
if [ -n "$tIFS" ]
then
TMP_IFS="$IFS"
IFS="$tIFS"
fi
}

zfs_log_begin_msg() { echo -n "$1 "; }
zfs_log_end_msg() {
zfs_set_ifs "$SOLD_IFS"
if [ "$1" -eq 0 ]; then
success
else
failure
fi
echo
zfs_set_ifs "$TMP_IFS"
}
zfs_log_failure_msg() {
zfs_set_ifs "$SOLD_IFS"
failure
echo
zfs_set_ifs "$TMP_IFS"
}
zfs_log_progress_msg() { echo -n "$1"; }
elif type einfo > /dev/null 2>&1 ; then
# Gentoo functions
zfs_log_begin_msg() { ebegin "$1"; }
zfs_log_end_msg() { eend "$1"; }
zfs_log_failure_msg() { eend "$1"; }
# zfs_log_progress_msg() { echo -n "$1"; }
zfs_log_progress_msg() { echo -n; }
else
# Unknown - simple substitutes.
zfs_log_begin_msg() { echo -n "$1"; }
zfs_log_end_msg() {
ret=$1

```

```

if [ "$ret" -ge 1 ]; then
    echo " failed!"
else
    echo " success"
fi
return "$ret"
}
zfs_log_failure_msg() { echo "$1"; }
zfs_log_progress_msg() { echo -n "$1"; }
fi

# Paths to what we need
ZFS="/usr/bin/zfs"
ZED="/usr/bin/zed"
ZPOOL="/usr/bin/zpool"
ZPOOL_CACHE="/etc/zfs/zpool.cache"

# Sensible defaults
ZFS_MOUNT='yes'
ZFS_UNMOUNT='yes'

export ZFS ZED ZPOOL ZPOOL_CACHE ZFS_MOUNT ZFS_UNMOUNT

# Source zfs configuration, overriding the defaults
if [ -f /etc/default/zfs ]; then
    . /etc/default/zfs
fi

# -----

zfs_action()
{
    local MSG="$1"; shift
    local CMD="$*"
    local ret

    zfs_log_begin_msg "$MSG "
    $CMD
    ret=$?
    if [ "$ret" -eq 0 ]; then
        zfs_log_end_msg $ret
    else
        zfs_log_failure_msg $ret
    fi

    return $ret
}

```

```

# Returns
# 0 if daemon has been started
# 1 if daemon was already running
# 2 if daemon could not be started
# 3 if unsupported
#
zfs_daemon_start()
{
    local PIDFILE="$1"; shift
    local DAEMON_BIN="$1"; shift
    local DAEMON_ARGS="$*"

    if type start-stop-daemon > /dev/null 2>&1 ; then
        # LSB functions
        start-stop-daemon --start --quiet --pidfile "$PIDFILE" \
            --exec "$DAEMON_BIN" --test > /dev/null || return 1

            start-stop-daemon --start --quiet --exec "$DAEMON_BIN" -- \
                $DAEMON_ARGS || return 2

        # On Debian GNU/Linux, there's a 'sendsigs' script that will
        # kill basically everything quite early and zed is stopped
        # much later than that. We don't want zed to be among them,
        # so add the zed pid to list of pids to ignore.
        if [ -f "$PIDFILE" -a -d /run/sendsigs.omit.d ]
        then
            ln -sf "$PIDFILE" /run/sendsigs.omit.d/zed
        fi
        elif type daemon > /dev/null 2>&1 ; then
            # Fedora/RedHat functions
            daemon --pidfile "$PIDFILE" "$DAEMON_BIN" $DAEMON_ARGS
            return $?
        else
            # Unsupported
            return 3
        fi

        return 0
    }

# Returns
# 0 if daemon has been stopped
# 1 if daemon was already stopped
# 2 if daemon could not be stopped
# 3 if unsupported
#
zfs_daemon_stop()
{

```

```

local PIDFILE="$1"
local DAEMON_BIN="$2"
local DAEMON_NAME="$3"

if type start-stop-daemon > /dev/null 2>&1 ; then
# LSB functions
start-stop-daemon --stop --quiet --retry=TERM/30/KILL/5 \
  --pidfile "$PIDFILE" --name "$DAEMON_NAME"
[ "$?" = 0 ] && rm -f "$PIDFILE"

return $?
elif type killproc > /dev/null 2>&1 ; then
# Fedora/RedHat functions
killproc -p "$PIDFILE" "$DAEMON_NAME"
[ "$?" = 0 ] && rm -f "$PIDFILE"

return $?
else
# Unsupported
return 3
fi

return 0
}

# Returns status
zfs_daemon_status()
{
local PIDFILE="$1"
local DAEMON_BIN="$2"
local DAEMON_NAME="$3"

if type status_of_proc > /dev/null 2>&1 ; then
# LSB functions
status_of_proc "$DAEMON_NAME" "$DAEMON_BIN"
return $?
elif type status > /dev/null 2>&1 ; then
# Fedora/RedHat functions
status -p "$PIDFILE" "$DAEMON_NAME"
return $?
else
# Unsupported
return 3
fi

return 0
}

```

```

zfs_daemon_reload()
{
    local PIDFILE="$1"
    local DAEMON_NAME="$2"

    if type start-stop-daemon > /dev/null 2>&1 ; then
        # LSB functions
        start-stop-daemon --stop --signal 1 --quiet \
            --pidfile "$PIDFILE" --name "$DAEMON_NAME"
        return $?
    elif type killproc > /dev/null 2>&1 ; then
        # Fedora/RedHat functions
        killproc -p "$PIDFILE" "$DAEMON_NAME" -HUP
        return $?
    else
        # Unsupported
        return 3
    fi

    return 0
}

zfs_installed()
{
    if [ ! -x "$ZPOOL" ]; then
        return 1
    else
        # Test if it works (will catch missing/broken libs etc)
        "$ZPOOL" -? > /dev/null 2>&1
        return $?
    fi

    if [ ! -x "$ZFS" ]; then
        return 2
    else
        # Test if it works (will catch missing/broken libs etc)
        "$ZFS" -? > /dev/null 2>&1
        return $?
    fi

    return 0
}

# Trigger udev and wait for it to settle.
udev_trigger()
{
    if [ -x /sbin/udevadm ]; then
        /sbin/udevadm trigger --action=change --subsystem-match=block
    fi
}

```



```

/sbin/udevadm settle
elif [ -x /sbin/udevsettle ]; then
/sbin/udevtrigger
/sbin/udevsettle
fi
}

# Do a lot of checks to make sure it's 'safe' to continue with the import.
checksystem()
{
if grep -qiE '^[^\\](\\\\)*zfs=(off|no|0)( |$)' /proc/cmdline;
then
# Called with zfs=(off|no|0) - bail because we don't
# want anything import, mounted or shared.
# HOWEVER, only do this if we're called at the boot up
# (from init), not if we're running interactively (as in
# from the shell - we know what we're doing).
[ -n "$init" ] && exit 3
fi

# Check if ZFS is installed.
zfs_installed || return 5

# Just make sure that /dev/zfs is created.
udev_trigger

if ! [ "$(uname -m)" = "x86_64" ]; then
echo "Warning: You're not running 64bit. Currently native zfs in";
echo "    Linux is only supported and tested on 64bit.";
# should we break here? People doing this should know what they
# do, thus i'm not breaking here.
fi

return 0
}

get_root_pool()
{
set -- $(mount | grep ' on / ')
[ "$5" = "zfs" ] && echo "${1% /*}"
}

# Check if a variable is 'yes' (any case) or '1'
# Returns TRUE if set.
check_boolean()
{
local var="$1"

```

```
echo "$var" | grep -Eiq "^yes$|^on$|^true$|^1$" && return 0 || return 1
}
```

```
check_module_loaded()
```

```
{
  module="$1"

  [ -r "/sys/module/${module}/version" ] && return 0 || return 1
}
```

```
load_module()
```

```
{
  module="$1"

  # Load the zfs module stack
  if ! check_module_loaded "$module"; then
    if ! /sbin/modprobe "$module"; then
      return 5
    fi
  fi
  return 0
}
```

```
# first parameter is a regular expression that filters mtab
```

```
read_mtab()
```

```
{
  local match="$1"
  local fs mntpnt fstype opts rest TMPFILE

  # Unset all MTAB_* variables
  unset $(env | grep ^MTAB_ | sed 's,=,.,,')

  while read -r fs mntpnt fstype opts rest; do
    if echo "$fs $mntpnt $fstype $opts" | grep -qE "$match"; then
      # * Fix problems (!?) in the mounts file. It will record
      # 'rpool 1' as 'rpool\0401' instead of 'rpool\00401'
      # which seems to be the correct (at least as far as
      # 'printf' is concerned).
      # * We need to use the external echo, because the
      # internal one would interpret the backslash code
      # (incorrectly), giving us a  instead.
      mntpnt=$(/bin/echo "$mntpnt" | sed "s,\\0,\\00,g")
      fs=$(/bin/echo "$fs" | sed "s,\\0,\\00,")

      # Remove 'unwanted' characters.
      mntpnt=$(printf '%b\n' "$mntpnt" | sed -e 's,/,.,g' \
        -e 's,-,.,g' -e 's,\\,.,g' -e 's,.,g')
      fs=$(printf '%b\n' "$fs")
    fi
  done
}
```

```

# Set the variable.
eval export MTAB_$(mntpnt)="fs\"
fi
done < /proc/self/mounts
}

in_mtab()
{
local fs="$(echo "$1" | sed 's/,_&g')\"
local var

var="$(eval echo MTAB_$(fs))\"
[ "$(eval echo "$var")" != "" ]
return "$?"
}

# first parameter is a regular expression that filters fstab
read_fstab()
{
local match="$1\"
local i var TMPFILE

# Unset all FSTAB_* variables
unset $(env | grep ^FSTAB_ | sed 's,=,*,,')

i=0
while read -r fs mntpnt fstype opts; do
echo "$fs" | egrep -qE '^#|^$' && continue
echo "$mntpnt" | egrep -qE '^none|^swap' && continue
echo "$fstype" | egrep -qE '^swap' && continue

if echo "$fs $mntpnt $fstype $opts" | grep -qE "$match"; then
eval export FSTAB_dev_$(i)="$fs\"
fs=$(printf '%b\n' "$fs" | sed 's/,_&g')
eval export FSTAB_$(i)="$mntpnt\"

i=$((i + 1))
fi
done < /etc/fstab
}

in_fstab()
{
local var

var="$(eval echo FSTAB_$(1))\"
[ "${var}" != "" ]
}

```

```

return $?
}

is_mounted()
{
local mntpt="$1"
local line

mount | \
while read line; do
if echo "$line" | grep -q " on $mntpt "; then
# returns:
# 0 on unsuccessful match
# 1 on a successful match
return 1
fi
done

# The negation will flip the subshell return result where the default
# return value is 0 when a match is not found.
return $(( !$? ))
}

```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/etc/zfs/zfs-functions
```

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```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/vdev_impl.h

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/metaslab.h

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#

#

Returns SCSI host number for the given disk

```

#
function get_scsi_host #disk
{
typeset disk=$1
ls /sys/block/${disk}/device/scsi_device | cut -d : -f 1
}

#
# Cause a scan of all scsi host adapters by default
#
# $1 optional host number
#
function scan_scsi_hosts
{
typeset hostnum=${1}

if is_linux; then
if [[ -z $hostnum ]]; then
for host in /sys/class/scsi_host/host*; do
log_must eval "echo '- - -' > $host/scan"
done
else
log_must eval \
"echo /sys/class/scsi_host/host$hostnum/scan" \
> /dev/null
log_must eval \
"echo '- - -' > /sys/class/scsi_host/host$hostnum/scan"
fi
fi
}

#
# Wait for newly created block devices to have their minors created.
#
function block_device_wait
{
if is_linux; then
udevadm trigger
udevadm settle
fi
}

#
# Check if the given device is physical device
#
function is_physical_device #device
{
typeset device=${1#$DEV_DSKDIR}

```

```

device=${device#"$DEV_RDSKDIR"}

if is_linux; then
[[ -b "$DEV_DSKDIR/$device" ]] && \
[[ -f /sys/module/loop/parameters/max_part ]]
return $?
else
echo $device | egrep "^c[0-F]+([td][0-F]+)+$" > /dev/null 2>&1
return $?
fi
}

#
# Check if the given device is a real device (ie SCSI device)
#
function is_real_device #disk
{
typeset disk=$1
[[ -z $disk ]] && log_fail "No argument for disk given."

if is_linux; then
lsblk $DEV_RDSKDIR/$disk -o TYPE 2>/dev/null | \
egrep disk >/dev/null
return $?
fi
}

#
# Check if the given device is a loop device
#
function is_loop_device #disk
{
typeset disk=$1
[[ -z $disk ]] && log_fail "No argument for disk given."

if is_linux; then
lsblk $DEV_RDSKDIR/$disk -o TYPE 2>/dev/null | \
egrep loop >/dev/null
return $?
fi
}

#
# Check if the given device is a multipath device and if there is a sybolic
# link to a device mapper and to a disk
# Currently no support for dm devices alone without multipath
#
function is_mpath_device #disk

```

```

{
typeset disk=$1
[[ -z $disk ]] && log_fail "No argument for disk given."

if is_linux; then
lsblk $DEV_MPATHDIR/$disk -o TYPE 2>/dev/null | \
egrep mpath >/dev/null
if (($? == 0)); then
readlink $DEV_MPATHDIR/$disk > /dev/null 2>&1
return $?
else
return $?
fi
fi
}

# Set the slice prefix for disk partitioning depending
# on whether the device is a real, multipath, or loop device.
# Currently all disks have to be of the same type, so only
# checks first disk to determine slice prefix.
#
function set_slice_prefix
{
typeset disk
typeset -i i=0

if is_linux; then
while (( i < $DISK_ARRAY_NUM )); do
disk="$(echo $DISKS | nawk '{print $(i + 1)}')"
if ( is_mpath_device $disk ) && [[ -z $(echo $disk | awk 'substr($1,18,1)\
~ /^[[:digit:]]+$/') ]] || ( is_real_device $disk ); then
export SLICE_PREFIX=""
return 0
elif ( is_mpath_device $disk || is_loop_device \
$disk ); then
export SLICE_PREFIX="p"
return 0
else
log_fail "$disk not supported for partitioning."
fi
(( i = i + 1 ))
done
fi
}

#
# Set the directory path of the listed devices in $DISK_ARRAY_NUM
# Currently all disks have to be of the same type, so only

```



```

# checks first disk to determine device directory
# default = /dev (linux)
# real disk = /dev (linux)
# multipath device = /dev/mapper (linux)
#
function set_device_dir
{
typeset disk
typeset -i i=0

if is_linux; then
while (( i < $DISK_ARRAY_NUM )); do
disk="$(echo $DISKS | nawk '{print $(i + 1)}')"
if is_mpath_device $disk; then
export DEV_DSKDIR=$DEV_MPATHDIR
return 0
else
export DEV_DSKDIR=$DEV_RDSKDIR
return 0
fi
(( i = i + 1 ))
done
else
export DEV_DSKDIR=$DEV_RDSKDIR
fi
}

#
# Get the directory path of given device
#
function get_device_dir #device
{
typeset device=$1

if ! $(is_physical_device $device) ; then
if [[ $device != "/" ]]; then
device=${device%/*}
fi
if [[ -b "$DEV_DSKDIR/$device" ]]; then
device="$DEV_DSKDIR"
fi
echo $device
else
echo "$DEV_DSKDIR"
fi
}

#

```

```

# Get persistent name for given disk
#
function get_persistent_disk_name #device
{
typeset device=$1
typeset dev_id

if is_linux; then
if is_real_device $device; then
dev_id="$(udevadm info -q all -n $DEV_DSKDIR/$device \
| egrep disk/by-id | nawk '{print $2; exit}' \
| nawk -F / '{print $3}')"
echo $dev_id
elif is_mpath_device $device; then
dev_id="$(udevadm info -q all -n $DEV_DSKDIR/$device \
| egrep disk/by-id/dm-uuid \
| nawk '{print $2; exit}' \
| nawk -F / '{print $3}')"
echo $dev_id
else
echo $device
fi
else
echo $device
fi
}

#
# Online or offline a disk on the system
#
# First checks state of disk. Test will fail if disk is not properly online
# or offline. Online is a full rescan of SCSI disks by echoing to every
# host entry.
#
function on_off_disk # disk state{online,offline} host
{
typeset disk=$1
typeset state=$2
typeset host=$3

[[ -z $disk ]] || [[ -z $state ]] && \
log_fail "Arguments invalid or missing"

if is_linux; then
if [[ $state == "offline" ]] && ( is_mpath_device $disk ); then
dm_name="$(readlink $DEV_DSKDIR/$disk \
| nawk -F / '{print $2}')"
slave="$(ls /sys/block/${dm_name}/slaves \

```

```

    | nawk '{print $1}')"
while [[ -n $slave ]]; do
#check if disk is online
lsscsi | egrep $slave > /dev/null
if (($? == 0)); then
    slave_dir="/sys/block/${dm_name}"
    slave_dir+="/slaves/${slave}/device"
    ss="${slave_dir}/state"
    sd="${slave_dir}/delete"
    log_must eval "echo 'offline' > ${ss}"
    log_must eval "echo '1' > ${sd}"
    lsscsi | egrep $slave > /dev/null
    if (($? == 0)); then
        log_fail "Offlining" \
            "$disk failed"
    fi
fi
slave="$(ls /sys/block/$dm_name/slaves \
    2>/dev/null | nawk '{print $1}')"
done
elif [[ $state == "offline" ]] && ( is_real_device $disk ); then
#check if disk is online
lsscsi | egrep $disk > /dev/null
if (($? == 0)); then
    dev_state="/sys/block/$disk/device/state"
    dev_delete="/sys/block/$disk/device/delete"
    log_must eval "echo 'offline' > ${dev_state}"
    log_must eval "echo '1' > ${dev_delete}"
    lsscsi | egrep $disk > /dev/null
    if (($? == 0)); then
        log_fail "Offlining $disk" \
            "failed"
    fi
else
    log_note "$disk is already offline"
fi
elif [[ $state == "online" ]]; then
#force a full rescan
scan_scsi_hosts $host
block_device_wait
if is_mpath_device $disk; then
    dm_name="$(readlink $DEV_DSKDIR/$disk \
        | nawk -F / '{print $2}')"
    slave="$(ls /sys/block/$dm_name/slaves \
        | nawk '{print $1}')"
    lsscsi | egrep $slave > /dev/null
    if (($? != 0)); then
        log_fail "Onlining $disk failed"

```

```

fi
elif is_real_device $disk; then
block_device_wait
typeset -i retries=0
while ! lsscsi | egrep -q $disk; do
if (( $retries > 2 )); then
log_fail "Onlining $disk failed"
break
fi
(( ++retries ))
sleep 1
done
else
log_fail "$disk is not a real dev"
fi
else
log_fail "$disk failed to $state"
fi
fi
}

#
# Simulate disk removal
#
function remove_disk #disk
{
typeset disk=$1
on_off_disk $disk "offline"
block_device_wait
}

#
# Simulate disk insertion for the given SCSI host
#
function insert_disk #disk scsi_host
{
typeset disk=$1
typeset scsi_host=$2
on_off_disk $disk "online" $scsi_host
block_device_wait
}

#
# Load scsi_debug module with specified parameters
# $blksz can be either one of: < 512b | 512e | 4Kn >
#
function load_scsi_debug # dev_size_mb add_host num_tgts max_luns blksz
{

```

```

typeset devsize=$1
typeset hosts=$2
typeset tgts=$3
typeset luns=$4
typeset blkksz=$5

[[ -z $devsize ]] || [[ -z $hosts ]] || [[ -z $tgts ]] || \
  [[ -z $luns ]] || [[ -z $blkksz ]] && \
  log_fail "Arguments invalid or missing"

case "$5" in
'512b')
  typeset sector=512
  typeset blkexp=0
  ;;
'512e')
  typeset sector=512
  typeset blkexp=3
  ;;
'4Kn')
  typeset sector=4096
  typeset blkexp=0
  ;;
*) log_fail "Unsupported blkksz value: $5" ;;
esac

if is_linux; then
  modprobe -n scsi_debug
  if (($? != 0)); then
    log_unsupported "Platform does not have scsi_debug"
    "module"
  fi
  lsmod | egrep scsi_debug > /dev/null
  if (($? == 0)); then
    log_fail "scsi_debug module already installed"
  else
    log_must modprobe scsi_debug dev_size_mb=$devsize \
      add_host=$hosts num_tgts=$tgts max_luns=$luns \
      sector_size=$sector physblk_exp=$blkexp
    block_device_wait
    lsscsi | egrep scsi_debug > /dev/null
    if (($? == 1)); then
      log_fail "scsi_debug module install failed"
    fi
  fi
fi
}

```

```

#
# Unload scsi_debug module, if needed.
#
function unload_scsi_debug
{
    log_must_retry "in use" 5 modprobe -r scsi_debug
}

#
# Get scsi_debug device name.
# Returns basename of scsi_debug device (for example "sdb").
#
function get_debug_device
{
    for i in {1..10} ; do
        val=$(lsscsi | nawk '/scsi_debug/ {print $6; exit}' | cut -d / -f3)

        # lsscsi can take time to settle
        if [ "$val" != "-" ] ; then
            break
        fi
        sleep 1
    done
    echo "$val"
}

#
# Get actual devices used by the pool (i.e. linux sdb1 not sdb).
#
function get_pool_devices #testpool #devdir
{
    typeset testpool=$1
    typeset devdir=$2
    typeset out=""

    if is_linux; then
        out=$(zpool status -P $testpool |grep ${devdir} | awk '{print $1}')
        out=$(echo $out | sed -e "s|${devdir}|/|g" | tr '\n' ' ')
    fi
    echo $out
}

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/include/blkdev.shlib
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#

.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/cli_root/zfs_set/zfs_set_common.kshlib
.$STF_SUITE/tests/functional/zvol/zvol_common.shlib

#
# Wait for udev to settle, completely.
# This is quite discomfoting, but there's a race condition here
# (Amazon 2015.09 x86_64 Release (TEST) is good at triggering this) where the
# kernel tries to remove zvol device nodes while they're open by [blkid],
# [zvol_id] or other udev related processes.
# Calling 'udevadm settle' is not enough: wait for those processes "manually".
#
function udev_wait
{
sleep 1
udevadm trigger --action=change
udevadm settle
for i in {1..3}; do
blkid="$(pgrep blkid | wc -l)"
zvol_id="$(pgrep zvol_id | wc -l)"
[[ "0" == "$zvol_id" && "0" == "$blkid" ]] && return
udevadm settle
done
log_fail "Wait timeout reached for udev_wait"

```

```

}

#
# Clean up udev status
# This is also a problem on "Amazon 2015.09 x86_64 Release (TEST)" where udev,
# sometimes, does not clean up /dev/zvol symlinks correctly for removed ZVOLs.
# Prune those links manually, then tell udev to forget them.
#
function udev_cleanup
{
    log_note "Pruning broken ZVOL symlinks ..."
    udevadm settle
    # find all dangling links and delete them
    find -L "${ZVOL_DEVDIR}" -type l -print -delete
    # purge those links from udev database
    udevadm info --cleanup-db
}

#
# Verify $device exists and is a block device
#
function blockdev_exists # device
{
    typeset device="$1"

    # we wait here instead of doing it in a wrapper around 'zfs set snapdev'
    # because there are other commands (zfs snap, zfs inherit, zfs destroy)
    # that can affect device nodes
    for i in {1..3}; do
        udev_wait
        [[ -b "$device" ]] && return 0
    done
    log_fail "$device does not exist as a block device"
}

#
# Verify $device does not exist
#
function blockdev_missing # device
{
    typeset device="$1"

    # we wait here instead of doing it in a wrapper around 'zfs set snapdev'
    # because there are other commands (zfs snap, zfs inherit, zfs destroy)
    # that can affect device nodes
    for i in {1..3}; do
        udev_wait
        [[ ! -e "$device" ]] && return 0
    done
}

```



```

done
log_fail "$device exists when not expected"
}

#
# Verify $property on $dataset is inherited by $parent and is set to $value
#
function verify_inherited # property value dataset parent
{
typeset property="$1"
typeset value="$2"
typeset dataset="$3"
typeset parent="$4"

typeset val=$(get_prop "$property" "$dataset")
typeset src=$(get_source "$property" "$dataset")
if [[ "$val" != "$value" || "$src" != "inherited from $parent" ]]; then
log_fail "Dataset $dataset did not inherit $property properly:\
    "expected=$value, value=$val, source=$src."
fi
}

#
# Create a small partition on $device, then verify if we can access it
#
function verify_partition # device
{
typeset device="$1"

if [[ ! -b "$device" ]]; then
log_fail "$device is not a block device"
fi
# create a small dummy partition
set_partition 0 1 1m $device
# verify we can access the partition on the device
devname="$(readlink -f "$device")"
if is_linux; then
[[ -b "$devname"p1 ]]
else
[[ -b "$devname"s0 ]]
fi
return $?
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_common.kshlib

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xz/usr/share/zfs/zfs-tests/tests/functional/hkdf/run_hkdf_test.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/hkdf/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/hkdf/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_encrypted_hierarchy.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_replace/replace_prop_ashift.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/enospc_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/add_prop_ashift.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/zpool_set_ashift.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_replace/replace-o_ashift.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_attach/attach-o_ashift.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/add-o_ashift.ksh
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```

#

#
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#

[global]
filename_format=file$jobnum
group_reporting=1
fallocate=0
ioengine=psync
bs=1024k
rw=write
thread=1
directory=${DIRECTORY}
numjobs=${NUMJOBS}
filesize=${FILE_SIZE}
buffer_compress_percentage=66
buffer_compress_chunk=4096

[job]

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/dsl_destroy.h

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#

.\$STF_SUITE/include/libtest.shlib
.\$STF_SUITE/tests/functional/alloc_class/alloc_class.cfg

```
function disk_setup
{
    truncate -s $ZPOOL_DEVSZ $ZPOOL_DISKS
    truncate -s $CLASS_DEVSZ $CLASS_DISKS
}
```

```
function disk_cleanup
```

```
{  
  rm -f $ZPOOL_DEVSZ $ZPOOL_DISKS 2> /dev/null  
  rm -f $CLASS_DEVSZ $CLASS_DISKS 2> /dev/null  
}
```

function cleanup

```
{  
  if datasetexists $TESTPOOL ; then  
    zpool destroy -f $TESTPOOL 2> /dev/null  
  fi  
}
```

disk_cleanup

```
}
```

```
#
```

```
# Try zpool status/iostat for given pool
```

```
#
```

```
# $1 pool
```

```
#
```

function display_status

```
{
```

```
typeset pool=$1
```

```
typeset -i ret=0
```

```
zpool status -xv $pool > /dev/null 2>&1
```

```
ret=$?
```

```
zpool iostat > /dev/null 2>&1
```

```
((ret |= $?))
```

```
typeset mntpnt=$(get_prop mountpoint $pool)
```

```
dd if=/dev/random of=$mntpnt/testfile.$$ &
```

```
typeset pid=$!
```

```
zpool iostat -v 1 3 > /dev/null
```

```
((ret |= $?))
```

```
kill -9 $pid
```

```
return $ret
```

```
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class.kshlib
```

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```
#
```

```

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#

. $STF_SUITE/tests/functional/mv_files/mv_files.cfg

#
# Determine whether this version of the ksh being
# executed has a bug where the limit of background
# processes of 25.
#
function check_bg_procs_limit_num
{
echo "#!/bin/ksh" > $TEST_BASE_DIR/exitsZero.ksh
echo "exit 0" >> $TEST_BASE_DIR/exitsZero.ksh
chmod 777 $TEST_BASE_DIR/exitsZero.ksh

cat <<EOF > $TEST_BASE_DIR/testbackgprocs.ksh
#!/bin/ksh
#
# exitsZero.ksh is a one line script
# that exit with status of "0"
#

```

```

PIDS=""
typeset -i i=1
while [ \ $i -le 50 ]
do
    $TEST_BASE_DIR/exitsZero.ksh &
    PIDS="\ $PIDS \ $"
    (( i = i + 1 ))
done

sleep 1

for pid in \ $PIDS
do
    wait \ $pid
    (( \ $? == 127 )) && exit 1
done
exit 0
EOF

ksh $TEST_BASE_DIR/testbackgprocs.ksh
if [[ \ $? -eq 1 ]]; then
#
# Current ksh being executed has a limit
# of 25 background processes.
#
return 1
else
return 0
fi
}

function init_setup
{

typeset disklist=$1

create_pool $TESTPOOL "$disklist"

if ! is_global_zone ; then
reexport_pool
fi

rm -rf $TESTDIR || log_unresolved Could not remove $TESTDIR
mkdir -p $TESTDIR || log_unresolved Could not create $TESTDIR

rm -rf $TESTDIR_TGT || log_unresolved Could not remove $TESTDIR_TGT
mkdir -p $TESTDIR_TGT || log_unresolved Could not create $TESTDIR_TGT

```

```

log_must zfs create $TESTPOOL/$TESTFS
log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTFS

log_must zfs create $TESTPOOL/$TESTFS_TGT
log_must zfs set mountpoint=$TESTDIR_TGT $TESTPOOL/$TESTFS_TGT

mkdir -p $OLDDIR || log_unresolved Could not create $OLDDIR
mkdir -p $NEWDIR_IN_FS || log_unresolved Could not create $NEWDIR_IN_FS
mkdir -p $NEWDIR_ACROSS_FS || log_unresolved Could not create $NEWDIR_ACROSS_FS

}

#
# Generate given number files in a
# directory of zfs file system
# $1 - the directory holds the generated files
# $2 - number of to-be-generated files
#

function generate_files
{
typeset -i count
typeset -i proc_num=0

if (( $2 == $MVNUMFILES )); then
count=1
else
count=$MVNUMFILES+1
fi

while (( count <= $2 ))
do
cp /etc/passwd $1/file_${count} \
> /dev/null 2>&1 &

(( proc_num = proc_num + 1 ))

if (( proc_num >= GANGPIDS )); then
wait
proc_num=0
fi

(( count = count + 1 ))
done

wait
}

```



```

#
# Move given number files from one directory to
# another directory in parallel
# $1 - source directory
# $2 - target directory
#
function mv_files
{
    find $1 -type f -print | xargs -i \
        mv {} $2 > /dev/null 2>&1
}

#
# Count the files number after moving, and
# compare it with the original number
# $1 - directory that to be operated
# $2 - original files number
#
function count_files
{
    typeset -i file_num
    file_num=`find $1 -type f -print | \
        wc -l`
    (( file_num != $2 )) && \
        log_fail "The file number of target directory"\
            "$2 is not equal to that of the source "\
            "directory $1"
}

#
# Running the 'mv' test
# $1 - old directory
# $2 - new directory
#
function mv_test
{
    typeset old=$1
    typeset new=$2

    typeset -i inc_num=$(( MVNUMFILES + MVNUMINCR ))
    typeset -i num=0

    for num in $MVNUMFILES $inc_num
    do
        generate_files $old $num
    done
}

```

```

mv_files $old $new
count_files $new $num

mv_files $new $old
count_files $old $num

done

typeset dir=$(get_device_dir $DISKS)
verify_filesys "$TESTPOOL" "$TESTPOOL/$TESTFS" "$dir"

return 0
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mv_files/mv_files_common.kshlib

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```

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```
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xz/usr/include/libzfs/sys/vdev_disk.h
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```

```
. $STF_SUITE/include/libtest.shlib  
. $STF_SUITE/tests/functional/casenorm/casenorm.cfg
```

```
function create_testfs  
{  
  typeset opts=$1  
  
  rm -rf $TESTDIR || log_unresolved Could not remove $TESTDIR  
  mkdir -p $TESTDIR || log_unresolved Could not create $TESTDIR
```

```
  log_must zfs create $opts $TESTPOOL/$TESTFS  
  log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTFS  
}
```

```
function destroy_testfs  
{  
  if datasetexists $TESTPOOL/$TESTFS ; then  
    log_must zfs destroy -f $TESTPOOL/$TESTFS  
    rm -rf $TESTDIR || log_unresolved Could not remove $TESTDIR  
  fi  
}
```

```
function create_file  
{  
  typeset name=$TESTDIR/$1
```

```

echo $name > $name
}

function delete_file
{
typeset name=$TESTDIR/$1

rm $name >/dev/null 2>&1

if [[ $? -ne 0 ]] ; then
return 1
fi

if [[ -f $name ]] ; then
return 2
fi
}

function lookup_file
{
typeset name=$1

zlook -l $TESTDIR $name >/dev/null 2>&1
}

function lookup_file_ci
{
typeset name=$1

zlook -il $TESTDIR $name >/dev/null 2>&1
}

function lookup_any
{
for name in $NAMES_ALL ; do
lookup_file $name
if [[ $? -eq 0 ]] ; then
return 0
fi
done

return 1
}

function switch_norm
{
typeset norm=$(get_norm $1)

```

```
if [[ $norm == "C" ]] ; then
  print "D"
else
  print "C"
fi
}
```

```
function get_norm
{
if [[ "${NAMES_C#*$1}" != "${NAMES_C}" ]] ; then
  print "C"
elif [[ "${NAMES_D#*$1}" != "${NAMES_D}" ]] ; then
  print "D"
else
  return 1
fi
}
```

```
function get_case
{
if [[ ${NAMES_UPPER#*$1} != ${NAMES_UPPER} ]] ; then
  print "UPPER"
elif [[ ${NAMES_LOWER#*$1} != ${NAMES_LOWER} ]] ; then
  print "LOWER"
elif [[ ${NAMES_ORIG#*$1} != ${NAMES_ORIG} ]] ; then
  print "ORIG"
else
  return 1
fi
}
```

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```
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xz/usr/share/zfs/zfs-tests/tests/functional/casenorm/casenorm.kshlib
```

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xz/usr/share/man/man5/zpool-features-5-gz/zpool-features.5
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```
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xz/usr/include/libzfs/sys/spa.h
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xz/usr/include/libzfs/sys/dsl_prop.h

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xz/usr/share/zfs/zfs-tests/tests/functional/io/posixaio.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/user_namespace/user_namespace.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/io/sync.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/deadman/deadman_zio.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/large_dnode_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/zpool_status_c_disable.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/events/zed_rc_filter.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events_errors.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/io/mmap.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_c_disable.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/io/psync.ksh

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_-c_searchpath.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/user_namespace/setup.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/arc/dbufstats_001_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/events/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_024_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/io/libaio.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/arc/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/events/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/arc/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/acl/posix/posix_003_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/zpool_status_-c_searchpath.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/user_namespace/user_namespace_001.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/procfs/pool_state.ksh


```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_resilver/zpool_resilver_restart.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/large_dnode_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/events/events_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/large_dnode_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/deadman/deadman_sync.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/io/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/zpool_status_-.s.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/events/events_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_-c_homedir.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_encrypted_truncated_files.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_encrypted_files.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-wDR_encrypted_zvol.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_encrypted_props.ksh
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xz/usr/share/man/man8/fsck-zfs-8-gz/fsck.zfs.8
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/man/man8/mount-zfs-8-gz/mount.zfs.8
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

xz/usr/share/man/man1/zhack-1-gz/zhack.1

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/man/man8/zinject-8-gz/zinject.8

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xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_011_pos.ksh

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#
```

```
function trim_prog_line # pool disk
{
typeset pool="$1"
typeset disk="$2"
zpool status -t "$pool" | grep "$disk" | grep "[[:digit:]]* trimmed"
}
```

```
function trim_progress # pool disk
{
trim_prog_line "$1" "$2" | sed 's/.*\([0-9]\{1,\}\)% trimmed.*\1/g'
}
```

```

function cleanup
{
if poolexists $TESTPOOL; then
destroy_pool $TESTPOOL
fi

if poolexists $TESTPOOL1; then
destroy_pool $TESTPOOL1
fi
}
log_onexit cleanup

```

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim.kshlib

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_property/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_destroy/zpool_destroy.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_remove/zpool_remove.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/zfs_promote.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_history/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

```
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_history/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/zfs_share.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_property/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy.cfg
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xz/usr/share/zfs/zfs-tests/tests/functional/no_space/enospc_df.ksh
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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zpool_create/zpool_create.cfg

#
# Given a pool vdevs list, create the pool, verify the created pool,
# and destroy the pool
# $1, pool name
# $2, pool type, mirror, raidz, or none
# $3, vdevs list
#
function create_pool_test
{
typeset pool=$1
typeset keywd=$2
typeset vdevs
eval "typeset -a diskarray=($3)"

for vdevs in "${diskarray[@]};do
create_pool $pool $keywd $vdevs
log_must poolexists $pool
destroy_pool $pool
done
}

#
# Create a ufs|ext file system and make a file within the file
# system for storage pool vdev
# $1, file size
# $2, file name
# $3, disk name to create ufs|ext file system
#
function create_blockfile
{
typeset size=$1
typeset file=$2
typeset disk=$3
typeset dir=`dirname $file`

if [[ -d $dir ]]; then
ismounted $dir $NEWFS_DEFAULT_FS
(( $? == 0 )) && \

```

```

log_must umount -f $dir
else
log_must mkdir -p $dir
fi

echo "y" | newfs ${DEV_RDSKDIR}/${disk} >/dev/null 2>&1
(( $? != 0 )) &&
log_fail "Create file system fail."

log_must mount ${DEV_DSKDIR}/${disk} $dir
log_must truncate -s $size $file
}

#
# Umount the ufs|ext filesystem and remove the mountpoint
# $1, the mount point
#
function clean_blockfile
{
typeset dirs=$1

for dir in $dirs; do
if [[ -d $dir ]]; then
if is_linux; then
if ismounted $dir ext2; then
typeset dev=$(df -lht ext2 | \
grep "$dir" | \
awk '{print $1}')
log_must umount -f $dir
create_pool ${TESTPOOL}.tmp $dev
destroy_pool ${TESTPOOL}.tmp
fi
else
if ismounted $dir ufs; then
typeset dev=$(df -lhF ufs | \
grep "$dir" | \
awk '{print $1}')
log_must umount -f $dir
create_pool ${TESTPOOL}.tmp $dev
destroy_pool ${TESTPOOL}.tmp
fi
fi
log_must rm -rf $dir
fi
done
}

#

```

```

# Find the storage device in /etc/vfstab
#
function find_vfstab_dev
{
typeset vfstabdev
typeset vfstabdevs=""
typeset line

if is_linux; then
vfstab="/etc/fstab"
tmpfile="$TEST_BASE_DIR/fstab.tmp"
else
vfstab="/etc/vfstab"
tmpfile="$TEST_BASE_DIR/vfstab.tmp"
fi

cat $vfstab | grep "^${DEV_DSKDIR}" >$tmpfile
while read -r line
do
vfstabdev=`echo "$line" | awk '{print $1}'`
vfstabdev=${vfstabdev%%:}
vfstabdevs="$vfstabdev $vfstabdevs"
done <$tmpfile

rm -f $tmpfile
echo $vfstabdevs
}

#
# Save the system current dump device configuration
#
function save_dump_dev
{
typeset dumpdev

if is_linux; then
dumpdev=""
else
typeset fnd="Dump device"
dumpdev=`dumpadm | grep "$fnd" | cut -f2 -d : | \
awk '{print $1}'`
fi
echo $dumpdev
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create.shlib

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xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_spare_multiple.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_spare_ashift.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade_002_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split_props.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/limits/snapshot_limit.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split_cliargs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send-b.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/limits/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_remap/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/limits/filesystem_count.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/setup.ksh
```


* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_remap/zfs_remap_cliargs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pyzfs/pyzfs_unittest.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split_encryption.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_deeply_nested.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_offline_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split_devices.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/limits/filesystem_limit.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_hierarchy.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_tempname.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_remap/zfs_remap_obsolete_counts.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/zpool_set_features.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_e.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_remap/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/limits/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/limits/snapshot_count.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_spare_shared.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_split/zpool_split_whole_disk.ksh

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#
```

```
[global]
filename_format=file$jobnum
group_reporting=1
fallocate=0
thread=1
rw=write
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bs=${BLOCKSIZE}
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}
filesize=${FILESIZE}
buffer_compress_percentage=66
buffer_compress_chunk=4096
```

```
[job]
```

```
Found in path(s):
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/fio/sequential_writes.fio
```

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/******
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xz/usr/include/libzfs/sys/fm/protocol.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/libuutil.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/fm/util.h
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xz/usr/include/libzfs/sys/vdev_removal.h
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xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_on_zdb.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_015_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zdb/zdb_006_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_012_pos.ksh
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xz/usr/include/libzfs/sys/nvpair_impl.h
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xz/usr/include/libspl/thread.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/vnode.h
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 * xz/usr/include/libspl/sys/stack.h

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xz/usr/include/libzfs/sys/sha2.h
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xz/usr/include/libzfs/sys/dsl_pool.h
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#

. $STF_SUITE/include/libtest.shlib

function cleanup
{
if datasetexists $TESTPOOL ; then
log_must zpool destroy -f $TESTPOOL
fi
if datasetexists $TESTPOOL2 ; then
log_must zpool destroy -f $TESTPOOL2
fi
}

#
# Try zpool status/iostat for given pool
#
# $1 pool
#
function display_status
{
typeset pool=$1

typeset -i ret=0

```

```

zpool status -xv $pool > /dev/null 2>&1
ret=$?

zpool iostat > /dev/null 2>&1
((ret |= $?))

typeset mntpnt=$(get_prop mountpoint $pool)
dd if=/dev/urandom of=$mntpnt/testfile.$$ &
typeset pid=$!

zpool iostat -v 1 3 > /dev/null
((ret |= $?))

kill -9 $pid
wait

return $ret
}

#
# Verify the given cache device have correct type and status
#
# $1 pool name
# $2 device name
# $3 device status
# $4 device type
#
function verify_cache_device
{
typeset pool=$1
typeset device=$2
typeset status=$3
typeset type=$4

if [[ -z $pool || -z $device || -z $status ]]; then
log_fail "Usage: verify_cache_device <pool> <device> " \
"<status> [type]"
fi

#
# Get all the cache devices and status table like below
#
# mirror:/disks/d ONLINE mirror:/disks/e ONLINE stripe:/disks/f ONLINE
#
set -A dev_stat_tab $(zpool status -v $pool | nawk 'BEGIN {start=0} \
^tcache/ {start=1} \
^tmirror/ || ^tspares/ || /^$/ {start=0} \
(start==1) && ^t (\|[a-zA-Z])/ \

```

```

    {print "stripe:" $1 " " $2}
    (start==1) && \t  (\|[a-zA-Z])/ \
    {print "mirror:" $1 " " $2}
    # When hotspare is replacing
    (start==1) && \t  (\|[a-zA-Z])/ \
    {print "mirror:" $1 " " $2}'
    )

typeset -i i=0
typeset find=0
while (( i < ${#dev_stat_tab[@]} )); do
    typeset dev=${dev_stat_tab[$i]}
    typeset stat=${dev_stat_tab[((i+1))]}

    case $dev in
        stripe:$device)
            if [[ "$type" == 'mirror' ]]; then
                log_note "Unexpected type: mirror"
                return 1
            else
                if [[ $stat != $status ]]; then
                    log_note "Status($stat) " \
                        "!= Expected stat($status)"
                    return 1
                fi
                return 0
            fi
            ;;
        mirror:$device)
            if [[ -z "$type" || $type == 'stripe' ]]; then
                log_note "Unexpected type: stripe"
                return 1
            else
                if [[ $stat != $status ]]; then
                    log_note "Status($stat) " \
                        "!= Expected stat($status)"
                    return 1
                fi
                return 0
            fi
            ;;
    esac
    ((i += 2))
done

log_note "Can not find device: $device"
return 1
}

```

```
function verify_cache_support
{
  zpool upgrade -v | grep "Cache devices" > /dev/null 2>&1
  return $?
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache.kshlib
```

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xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_014_pos.ksh
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```

```
arg = ...
fs = arg["argv"][1]
snap = arg["argv"][2]
vol = arg["argv"][3]
```

```
props = { }
```

```
-- The values indicate whether or not a property should be returned,
-- not the value of the property. A better approach might be to compare
-- their values to the output of 'zfs get <prop>'
```

```

-- prop          filesystem  snapshot  volume
props['used']    = {{true,  nil}, {true, nil}, {true,  nil}}
props['available'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['referenced'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['compressratio'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['refcompressratio'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['volblocksize'] = {{nil,  nil}, {nil, nil}, {true,  nil}}
props['usedbysnapshots'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['usedbydataset'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['usedbychildren'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['usedbyreservation'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['userrefs'] = {{nil,  nil}, {true, nil}, {nil,  nil}}
props['written'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['logicalused'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['logicalreferenced'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['quota'] = {{true, 'default'}, {nil, nil}, {nil,  nil}}
props['reservation'] = {{true, 'default'}, {nil, nil}, {true, 'default'}}
-- Note that zfs on linux allows volsize for snapshot which differs from openzfs
-- props['volsize'] = {{nil,  nil}, {nil, nil}, {true,  vol}}
props['refquota'] = {{true, 'default'}, {nil, nil}, {nil,  nil}}
props['reservation'] = {{true, 'default'}, {nil, nil}, {true,  vol}}
props['filesystem_limit'] = {{true,  fs}, {nil, nil}, {nil,  nil}}
props['snapshot_limit'] = {{true,  fs}, {nil, nil}, {true,  vol}}
props['filesystem_count'] = {{true,  nil}, {nil, nil}, {nil,  nil}}
props['snapshot_count'] = {{true,  nil}, {nil, nil}, {true,  nil}}
props['recordsize'] = {{true, 'default'}, {nil, nil}, {nil,  nil}}
props['creation'] = {{true,  nil}, {true, nil}, {true,  nil}}
-- hidden props
props['createtxg'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['numclones'] = {{nil,  nil}, {true, nil}, {nil,  nil}}
props['guid'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['useraccounting'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['unique'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['objsetid'] = {{true,  nil}, {true, nil}, {true,  nil}}
props['inconsistent'] = {{true,  nil}, {true, nil}, {true,  nil}}

```

```

fs_fails = { }
snap_fails = { }
vol_fails = { }

```

```

function match(n, ans, src, expected)
  if ((expected[n][1] == nil) and (ans ~= nil)) then
    return false
  end

  if ((expected[n][1] == true) and (ans == nil)) then

```

```

    return false
end

if (expected[n][2] ~= src) then
    return false
end

return true
end

for prop, expected in pairs(props) do
    ans, src = zfs.get_prop(fs, prop)
    if not (match(1, ans, src, expected)) then
        fs_fails[prop] = {ans, src}
    end

    ans, src = zfs.get_prop(snap, prop)
    if not (match(2, ans, src, expected)) then
        snap_fails[prop] = {ans, src}
    end

    ans, src = zfs.get_prop(vol, prop)
    if not (match(3, ans, src, expected)) then
        vol_fails[prop] = {ans, src}
    end
end

return {fs_fails, snap_fails, vol_fails}

```

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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_number_props.zcp
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xz/usr/share/zfs/zfs-tests/tests/functional/mount/umountall_001.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/sdt.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/assert.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/types.h
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/systeminfo.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/processor.h

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xz/usr/include/libzfs/sys/dataset_kstats.h
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xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/setup.ksh
```

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--
```

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--

arg = ...

fs = arg["argv"][1]

snap = arg["argv"][2]

clone = arg["argv"][3]

props = { }

```
-- prop      filesystem      snapshot      clone
props['origin'] = {{nil, nil}, {nil, nil}, {snap, nil}}
props['clones'] = {{nil, nil}, {{clone}, nil}, {nil, nil}}
props['mountpoint'] = {{ '/' .. fs, 'default'}, {nil, nil}, { '/' .. clone, 'default' }}
props['sharefs'] = {{ 'off', 'default'}, {nil, nil}, { 'off', 'default' }}
props['type'] = {{ 'filesystem', nil}, { 'snapshot', nil}, { 'filesystem', nil }}
props['sharesmb'] = {{ 'off', 'default'}, {nil, nil}, { 'off', 'default' }}
props['mlslabel'] = {{ 'none', 'default'}, { 'none', 'default'}, { 'none', 'default' }}
props['receive_resume_token'] = {{nil, nil}, {nil, nil}, {nil, nil}}
-- hidden props
props['name'] = {{fs, nil}, {snap, nil}, {clone, nil}}
props['iscsioptions'] = {{nil, nil}, {nil, nil}, {nil, nil}}
props['prevsnap'] = {{snap, nil}, {nil, nil}, {snap, nil}}
```

fs_fails = { }

snap_fails = { }

clone_fails = { }

function list_match(t1, t2)

if t1 == t2 then return true end

return (t1[1] == t2[1])

end

function match(n, prop, ans, src, expected)

if ((prop == 'clones') or (prop == 'redact_snaps')) then

return (list_match(ans, expected[n][1]) and (src == expected[n][2]))

else

return ((ans == expected[n][1]) and (src == expected[n][2]))

end

end

for prop, expected in pairs(props) do

ans, src = zfs.get_prop(fs, prop)

if not (match(1, prop, ans, src, expected)) then

fs_fails[prop] = {ans, src}

end

```
ans, src = zfs.get_prop(snap, prop)
if not (match(2, prop, ans, src, expected)) then
  snap_fails[prop] = {ans, src}
end
```

```
ans, src = zfs.get_prop(clone, prop)
if not (match(3, prop, ans, src, expected)) then
  clone_fails[prop] = {ans, src}
end
end
```

```
return {fs_fails, snap_fails, clone_fails}
```

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```
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xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_string_props.zcp
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--

```
return 1 / 0
```

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xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lu_core/tst.divide_by_zero.zcp
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--
-- This program should be invoked as "zfs program <pool> <prog> <clone>"

```

```

args = ...
argv = args["argv"]
err, desc = zfs.sync.promote(argv[1])
assert(err == EEXIST)
assert(#desc == 1)
assert(desc[1] == "promote_conflict_snap")

```

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xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.promote_conflict.zcp
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*/opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/dsl_scan.h
```

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xz/usr/include/libspl/sys/vtoc.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/dktp/fdisk.h
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xz/usr/share/man/man8/zstreamdump-8-gz/zstreamdump.8
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```

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```

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```

```
--
```

```
-- This program returns a self-referential data structure.
```

```
a = { }
a["key"] = "val"
a["self"] = a
return a
```

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```
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xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.return_recursive_table.zcp
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xz/usr/include/libzfs/sys/zio_impl.h

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#

```

```

.$STF_SUITE/include/math.shlib

```

```

export TESTVOL="testvol.nopwrite"
export VOLSIZE="256M"
export MEGS="64"

```

```

function verify_nopwrite

```



```

{
typeset origin=$1
typeset snap=$2
typeset clone=$3
typeset low=1
typeset high=99

sync_pool
for i in origin snap clone; do
  for j in used refer usedbychildren written; do
    typeset ${i}_${j}=$(get_prop $j $(eval echo \$$i))
  done
done

#
# If we are dealing with a volume, deduct the reserves from the used
# value to prevent real failures from being masked by the unexpected
# extra space. Also, volumes use more space for metadata, so adjust the
# percentages to be more forgiving.
#
if [[ "$(get_prop type $origin)" = "volume" ]]; then
  typeset rr=$(get_prop reserves $origin)
  ((origin_used -= rr))
  low=2
  high=98
fi

# These values should differ greatly with nopwrite.
within_percent $origin_used $clone_used $low && return 1
within_percent $origin_refer $origin_usedbychildren $low && return 1
within_percent $snap_written $clone_written $low && return 1

# These values should be nearly the same with nopwrite.
within_percent $origin_used $clone_refer $high || return 1
within_percent $origin_used $snap_refer $high || return 1

#
# The comparisons below should pass regardless of nopwrite. They're
# here for sanity.
#
typeset deadlist=$(zdb -Pddd $clone | awk '/Deadlist:/ {print $2}')
within_percent $deadlist $clone_written $high || return 1
within_percent $snap_refer $snap_written $high || return 1

return 0
}

```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite.shlib
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```
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_002_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_001_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_006_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_003_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/readonly_001_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_004_pos.ksh
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version.

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xz/usr/share/man/man8/zfs-8-gz/zfs.8
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/zfs_prop.h

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/stropts.h

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#

. ${STF_TOOLS}/include/stf.shlib

# Output an assertion
#
# $@ - assertion text

function log_assert
{
    _printline ASSERTION: "$@"
}

# Output a comment
#
# $@ - comment text

function log_note
{
    _printline NOTE: "$@"
}

# Execute and print command with status where success equals non-zero result
#
# $@ - command to execute
#
# return 0 if command fails, otherwise return 1

function log_neg
{
    log_neg_expect "" "$@"
}

```



```

return $?
}

# Execute a positive test and exit $STF_FAIL is test fails
#
# $@ - command to execute

function log_must
{
log_pos "$@"
(( $? != 0 )) && log_fail
}

# Execute a positive test but retry the command on failure if the output
# matches an expected pattern. Otherwise behave like log_must and exit
# $STF_FAIL is test fails.
#
# $1 - retry keyword
# $2 - retry attempts
# $3-$@ - command to execute
#
function log_must_retry
{
typeset out=""
typeset logfile="/tmp/log.$$"
typeset status=1
typeset expect=$1
typeset retry=$2
typeset delay=1
shift 2

while [[ -e $logfile ]]; do
logfile="$logfile.$$"
done

while (( $retry > 0 )); do
"$@" 2>$logfile
status=$?
out="cat $logfile"

if (( $status == 0 )); then
$out | egrep -i "internal error|assertion failed" \
> /dev/null 2>&1
# internal error or assertion failed
if [[ $? -eq 0 ]]; then
print -u2 $($out)
_printerror "$@" "internal error or" \
" assertion failure exited $status"

```

```

    status=1
else
[[ -n $LOGAPI_DEBUG ]] && print $($out)
    _printsucces "$@"
fi
break
else
    $out | grep -i "$expect" > /dev/null 2>&1
    if (( $? == 0 )); then
        print -u2 $($out)
        _printerror "$@" "Retry in $delay seconds"
        sleep $delay

        (( retry=retry - 1 ))
        (( delay=delay * 2 ))
    else
        break;
    fi
fi
done

if (( $status != 0 )) ; then
    print -u2 $($out)
    _printerror "$@" "exited $status"
fi

_recursive_output $logfile "false"
return $status
}

# Execute a positive test and exit $STF_FAIL is test fails after being
# retried up to 5 times when the command returns the keyword "busy".
#
# $@ - command to execute
function log_must_busy
{
    log_must_retry "busy" 5 "$@"
    (( $? != 0 )) && log_fail
}

# Execute a negative test and exit $STF_FAIL if test passes
#
# $@ - command to execute

function log_mustnot
{
    log_neg "$@"
    (( $? != 0 )) && log_fail
}

```

```

}

# Execute a negative test with keyword expected, and exit
# $STF_FAIL if test passes
#
# $1 - keyword expected
# $2-$@ - command to execute

function log_mustnot_expect
{
    log_neg_expect "$@"
    (( $? != 0 )) && log_fail
}

# Execute and print command with status where success equals non-zero result
# or output includes expected keyword
#
# $1 - keyword expected
# $2-$@ - command to execute
#
# return 0 if command fails, or the output contains the keyword expected,
# return 1 otherwise

function log_neg_expect
{
    typeset out=""
    typeset logfile="/tmp/log.$$"
    typeset ret=1
    typeset expect=$1
    shift

    while [[ -e $logfile ]]; do
        logfile="$logfile.$$"
    done

    "$@" 2>$logfile
    typeset status=$?
    out="cat $logfile"

    # unexpected status
    if (( $status == 0 )); then
        print -u2 $($out)
        _printerror "$@" "unexpectedly exited $status"
    # missing binary
    elif (( $status == 127 )); then
        print -u2 $($out)
        _printerror "$@" "unexpectedly exited $status (File not found)"
    # bus error - core dump

```

```

elif (( $status == 138 )); then
    print -u2 $($out)
    _printerror "$@" "unexpectedly exited $status (Bus Error)"
# segmentation violation - core dump
elif (( $status == 139 )); then
    print -u2 $($out)
    _printerror "$@" "unexpectedly exited $status (SEGV)"
else
    $out | egrep -i "internal error|assertion failed" \
    > /dev/null 2>&1
# internal error or assertion failed
if (( $? == 0 )); then
    print -u2 $($out)
    _printerror "$@" "internal error or assertion failure" \
    " exited $status"
elif [[ -n $expect ]]; then
    $out | grep -i "$expect" > /dev/null 2>&1
if (( $? == 0 )); then
    ret=0
else
    print -u2 $($out)
    _printerror "$@" "unexpectedly exited $status"
fi
else
    ret=0
fi

if (( $ret == 0 )); then
    [[ -n $LOGAPI_DEBUG ]] && print $($out)
    _printsucces "$@" "exited $status"
fi
fi
_recursive_output $logfile "false"
return $ret
}

# Execute and print command with status where success equals zero result
#
# $@ command to execute
#
# return command exit status

function log_pos
{
typeset out=""
typeset logfile="/tmp/log.$$"

while [[ -e $logfile ]]; do

```

```

logfile="$logfile.$$"
done

"$@" 2>$logfile
typeset status=$?
out="cat $logfile"

if (( $status != 0 )) ; then
print -u2 $($out)
_printerror "$@" "exited $status"
else
$out | egrep -i "internal error|assertion failed" \
> /dev/null 2>&1
# internal error or assertion failed
if [[ $? -eq 0 ]]; then
print -u2 $($out)
_printerror "$@" "internal error or assertion failure" \
" exited $status"
status=1
else
[[ -n $LOGAPI_DEBUG ]] && print $($out)
_printsuccess "$@"
fi
fi
_recursive_output $logfile "false"
return $status
}

# Set an exit handler
#
# $@ - function(s) to perform on exit

function log_onexit
{
_CLEANUP="$@"
}

#
# Exit functions
#

# Perform cleanup and exit $STF_PASS
#
# $@ - message text

function log_pass
{
_endlog $STF_PASS "$@"
}

```

```
}

# Perform cleanup and exit $STF_FAIL
#
# $@ - message text

function log_fail
{
    _endlog $STF_FAIL "$@"
}

# Perform cleanup and exit $STF_UNRESOLVED
#
# $@ - message text

function log_unresolved
{
    _endlog $STF_UNRESOLVED "$@"
}

# Perform cleanup and exit $STF_NOTINUSE
#
# $@ - message text

function log_notinuse
{
    _endlog $STF_NOTINUSE "$@"
}

# Perform cleanup and exit $STF_UNSUPPORTED
#
# $@ - message text

function log_unsupported
{
    _endlog $STF_UNSUPPORTED "$@"
}

# Perform cleanup and exit $STF_UNTESTED
#
# $@ - message text

function log_untested
{
    _endlog $STF_UNTESTED "$@"
}

# Perform cleanup and exit $STF_UNINITIATED
```

```
#
# $@ - message text

function log_uninitiated
{
    _endlog $STF_UNINITIATED "$@"
}

# Perform cleanup and exit $STF_NORESULT
#
# $@ - message text

function log_noresult
{
    _endlog $STF_NORESULT "$@"
}

# Perform cleanup and exit $STF_WARNING
#
# $@ - message text

function log_warning
{
    _endlog $STF_WARNING "$@"
}

# Perform cleanup and exit $STF_TIMED_OUT
#
# $@ - message text

function log_timed_out
{
    _endlog $STF_TIMED_OUT "$@"
}

# Perform cleanup and exit $STF_OTHER
#
# $@ - message text

function log_other
{
    _endlog $STF_OTHER "$@"
}

#
# Internal functions
#
```

```

# Execute custom callback scripts on test failure
#
# callback script paths are stored in TESTFAIL_CALLBACKS, delimited by ':'.

function _execute_testfail_callbacks
{
typeset callback

print "$TESTFAIL_CALLBACKS:" | while read -d ":" callback; do
if [[ -n "$callback" ]] ; then
log_note "Performing test-fail callback ($callback)"
$callback
fi
done
}

# Perform cleanup and exit
#
# $1 - stf exit code
# $2-$n - message text

function _endlog
{
typeset logfile="/tmp/log.$$"
_recursive_output $logfile

typeset exitcode=$1
shift
(( ${#@} > 0 )) && _printline "$@"

if [[ $exitcode == $STF_FAIL ]] ; then
_execute_testfail_callbacks
fi

if [[ -n $_CLEANUP ]] ; then
typeset cleanup=$_CLEANUP
log_onexit ""
log_note "Performing local cleanup via log_onexit ($cleanup)"
$cleanup
fi

exit $exitcode
}

# Output a formatted line
#
# $@ - message text

```



```

function _printline
{
    print "$@"
}

# Output an error message
#
# $@ - message text

function _printerror
{
    _printline ERROR: "$@"
}

# Output a success message
#
# $@ - message text

function _printsucces
{
    _printline SUCCESS: "$@"
}

# Output logfiles recursively
#
# $1 - start file
# $2 - indicate whether output the start file itself, default as yes.

function _recursive_output #logfile
{
    typeset logfile=$1

    while [[ -e $logfile ]]; do
        if [[ -z $2 || $logfile != $1 ]]; then
            cat $logfile
        fi
        rm -f $logfile
        logfile="$logfile.$$"
    done
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/test-runner/include/logapi.shlib
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*/
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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/fs/zfs.h
```

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#
```

```

.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/cli_root/zpool_events/zpool_events.cfg

#
# Wait to allow the kernel module to process ZFS events until we reach $eventnum
# or a timeout of $timeout seconds expire, whichever comes first
#
function zpool_events_settle # <eventnum> [timeout]
{
typeset eventnum="{1:-$EVENTS_NUM}"
typeset timeout="{2:-3}"
typeset -i count
typeset -i i=0

while [[ $i -lt $timeout ]]; do
count=$(zpool events -H | wc -l)
if [[ $count -ge $eventnum ]]; then
break
fi
i=$((i+1))
sleep 1
done
log_note "waited $i seconds"
}

```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events.kshlib
```

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```

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```
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```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userspace_003_pos.ksh
```

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#
```

```
. $STF_SUITE/tests/functional/cli_root/zfs_unmount/zfs_unmount.cfg
```

```
function do_unmount #cmd #opt #mnt #expect
```

```
{
typeset cmd=$1
typeset opt=$2
typeset mnt=$3
typeset -i expect=${4-0}
typeset -i ret
typeset -i wasmounted=1
```

```
mounted $mnt || wasmounted=0
```

```
if (( expect == 0 )) ; then
log_must zfs $cmd $opt $mnt
```

```
log_must unmounted $mnt
```

```
log_note "Successfully zfs $cmd $opt $mnt"
```

```
else
log_note "zfs $cmd $opt $mnt"
```

```

zfs $cmd $opt $mnt
ret=$?
if (( ret != expect)); then
  log_fail "'zfs $cmd $opt $mnt' " \
    "unexpected return code of $ret."
fi

if (( wasmounted == 1 )) ; then
  log_must mounted $mnt
else
  log_must unmounted $mnt
fi
log_note "Mount status of $mnt not changed."
fi
}

function cleanup
{
  [[ -n $cwd ]] && cd $cwd

  log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTFMS
  mounted $TESTPOOL/$TESTFMS || \
  log_must zfs $mountcmd $TESTPOOL/$TESTFMS
}

```

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount.kshlib

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```

```
basestring = "aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa" ..
             "aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa"
```

```
ret = { }
for i=1,5000 do
    table.insert(ret, basestring)
end

return ret
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.return_large.zcp
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_program/zfs_program_json.ksh
```

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```
. $STF_SUITE/include/libtest.shlib  
. $STF_SUITE/tests/functional/history/history.cfg
```

```
function run_and_verify  
{  
  typeset user pool  
  while getopts "p:u:" opt; do  
    case $opt in  
      p)  
        pool=$OPTARG  
        ;;  
      u)  
        user=$OPTARG  
        ;;  
    esac  
  done  
}
```

```

esac
done
shift $((OPTIND - 1))

pool=${pool:-$TESTPOOL}
user=${user:-"root"}
fullcmd="$1"
flags="$2"

if is_linux; then
    histcmd=$(echo $fullcmd | sed 's/^\.*\(\zpool .*\).*$/1/')
    histcmd=$(echo $histcmd | sed 's/^\.*\(\zfs .*\).*$/1/')
else
    histcmd=$(echo $fullcmd | sed 's/^\usr\sbin///g')
fi

cmd=$(echo $histcmd | awk '{print $1}')
subcmd=$(echo $histcmd | awk '{print $2}')

# If we aren't running zpool or zfs, something is wrong
[[ $cmd == "zpool" || $cmd == "zfs" ]] || \
    log_fail "run_and_verify called with \"$cmd ($fullcmd)\""

# If this is a 'zfs receive' truncate the stdin redirect
[[ $subcmd == "receive" || $subcmd == "recv" ]] && \
    histcmd=${histcmd%% < *}

# Run the command as the specified user, and find the new history.
zpool history $flags $pool > $OLD_HISTORY 2>/dev/null
if [[ $user == "root" ]]; then
    log_must eval "$fullcmd"
else
    log_must user_run $user "$fullcmd"
fi
zpool history $flags $pool > $TMP_HISTORY 2>/dev/null
diff $OLD_HISTORY $TMP_HISTORY | grep "^> " | sed 's/^> //g' \
    > $NEW_HISTORY

# Verify what's common to every case, regardless of zpool history flags.
grep "$histcmd" $NEW_HISTORY >/dev/null 2>&1 || \
    log_fail "Didn't find \"$histcmd\" in pool history"

# If 'zpool history' was called without any flags, then we're done.
[[ -z $flags ]] && return

# Verify the new history in cases that are more interesting because
# additional information is logged with -i or -l.

```



```

[[ $flags =~ "i" ]] && log_must verify_$subcmd "$hstcmd" "$subcmd" \
"$flags"
[[ $flags =~ "l" ]] && log_must verify_long "$hstcmd" "$user" "$flags"
}

```

```
function verify_long
```

```

{
typeset cmd=$1
typeset user=$2
typeset flags=$3

```

```
[[ $flags =~ "l" ]] || return 1
```

```

typeset uid=$(id -u $user)
typeset hname=$(hostname)
if ! is_global_zone; then
hname=$hname:$(zonename)
fi

```

```

typeset suffix=""
if [ is_linux ]; then
suffix=".linux"
fi

```

```

grep "$cmd \[user $uid ($user) on $hname$suffix\]" \
$NEW_HISTORY >/dev/null 2>&1
if [[ $? != 0 ]]; then
log_note "Couldn't find long information for \"$cmd\""
return 1
fi

```

```

return 0
}

```

```
function verify_hold
```

```

{
typeset cmd=$1
typeset subcmd=$2
typeset flags=$3

```

```
[[ $flags =~ "i" ]] || return 1
```

```

typeset tag=$(echo $cmd | awk '{print $4}')
typeset fullname=${cmd##* }
typeset dsname=${fullname%%@*}
typeset snapname=${fullname##*@}

```

```
# This works whether or not the hold was recursive
```

```

for ds in $(zfs list -r -Ho name -t snapshot $dsname | \
  grep "@$snapname"); do
  grep "$subcmd $ds ([0-9]*) tag=$tag" $NEW_HISTORY \
    >/dev/null 2>&1
  if [[ $? != 0 ]]; then
    log_note "Didn't find hold on $ds with $tag"
    return 1
  fi
done

return 0
}

function verify_release
{
  # hold and release formats only differ by the subcommand name, so
  # simply reuse the hold function.
  verify_hold "$1" "release" "$3"
}

function verify_rollback
{
  typeset cmd=$1
  typeset flags=$3

  [[ $flags =~ "i" ]] || return 1

  typeset fullname=${cmd###* }
  typeset dsname=${fullname%%@*}
  typeset parent_fs=${dsname###*/}
  typeset rb_fs=${dsname}/%rollback
  typeset snapname=${fullname###*@}

  grep "clone swap $rb_fs ([0-9]*) parent=$parent_fs" $NEW_HISTORY \
    >/dev/null 2>&1
  if [[ $? != 0 ]]; then
    log_note "Didn't find rollback clone swap in pool history"
    return 1
  fi

  grep "destroy $rb_fs" $NEW_HISTORY >/dev/null 2>&1
  if [[ $? != 0 ]]; then
    log_note "Didn't find rollback destroy in pool history"
    return 1
  fi

  return 0
}

```

```

function verify_inherit
{
typeset cmd=$1
typeset flags=$3

[[ $flags =~ "i" ]] || return 1

typeset dsname=${cmd##* }
typeset prop=${cmd% *}
prop=${prop##* }

# This works whether or not the inherit was recursive
for ds in $(zfs list -r -Ho name -t filesystem $dsname); do
grep "$subcmd $ds ([0-9]*) ${prop}=" $NEW_HISTORY >/dev/null \
    2>&1
if [[ $? != 0 ]]; then
log_note "Didn't find inherit history for $ds"
return 1
fi
done

return 0
}

function verify_allow
{
typeset cmd=$1
typeset subcmd=$2
typeset flags=$3

[[ $flags =~ "i" ]] || return 1
[[ $subcmd == "allow" ]] && subcmd="update"
[[ $subcmd == "unallow" ]] && subcmd="remove"
typeset is_set lflag dflag dsname gname gid uname uid opt str code tmp

#
# Here, we determine three things:
# - Whether we're operating on a set or an individual permission (which
#   dictates the case of the first character in the code)
# - The name of the dataset we're operating on.
# - Whether the operation applies locally or to descendent datasets (or
#   both)
#
echo $cmd | awk '{i = NF - 1; print $i}' | grep '@' >/dev/null \
    2>&1 && is_set=1
dsname=${cmd##* }
[[ $cmd =~ "-l " ]] && lflag=1

```

```

[[ $cmd =~ "-d " ]] && dflag=1
if [[ -z $lflag && -z $dflag ]]; then
    lflag=1
    dflag=1
fi

#
# For each of the five cases below, the operation is essentially the
# same. First, use the command passed in to determine what the code at
# the end of the pool history will be. The specifics of the code are
# described in a block comment at the top of dsl_deleg.c. Once that's
# been assembled, check for its presence in the history, and return
# success or failure accordingly.
#
if [[ $cmd =~ "-s " ]]; then
    str="s-\${@}"
    [[ -n $is_set ]] && str="S-\${@}"
    tmp=${cmd##*@}
    code="$str${tmp% *} "
    grep "permission $subcmd $dsname ([0-9]*) $code" \
        $NEW_HISTORY >/dev/null 2>&1
    if [[ $? != 0 ]]; then
        log_note "Couldn't find $code in $NEW_HISTORY"
        return 1
    fi
elif [[ $cmd =~ "-c " ]]; then
    str="c-\${@}"
    [[ -n $is_set ]] && str="C-\${@}"
    tmp=${cmd##*-c}
    code="$str${tmp% *} "
    grep "permission $subcmd $dsname ([0-9]*) $code" \
        $NEW_HISTORY >/dev/null 2>&1
    if [ $? != 0 ]; then
        log_note "Couldn't find $code in $NEW_HISTORY"
        return 1
    fi
elif [[ $cmd =~ "-u " ]]; then
    str="u"
    [[ -n $is_set ]] && str="U"
    tmp=${cmd##*-u}
    opt=$(echo $tmp | awk '{print $2}')
    uid=$(id -u ${tmp%% *})
    if [[ -n $lflag ]]; then
        code="${str}I\${uid} $opt"
    fi
    grep "permission $subcmd $dsname ([0-9]*) $code" \
        $NEW_HISTORY >/dev/null 2>&1
    if [ $? != 0 ]; then
        log_note "Couldn't find $code in $NEW_HISTORY"

```

```

    return 1
fi
fi
if [[ -n $dflag ]]; then
code="${str}d\\$Suid $opt"
grep "permission $subcmd $dsname ([0-9]*) $code" \
    $NEW_HISTORY >/dev/null 2>&1
if [ $? != 0 ]; then
    log_note "Couldn't find $code in $NEW_HISTORY"
    return 1
fi
fi
elif [[ $cmd =~ "-g " ]]; then
str="g"
[[ -n $is_set ]] && str="G"
tmp=${cmd##*-g }
opt=$(echo $tmp | awk '{print $2}')
gid=$(awk -F: "/^${tmp}% * }:/ {print \$3}" /etc/group)
if [[ -n $lflag ]]; then
code="${str}l\\$gid $opt"
grep "permission $subcmd $dsname ([0-9]*) $code" \
    $NEW_HISTORY >/dev/null 2>&1
if [ $? != 0 ]; then
    log_note "Couldn't find $code in $NEW_HISTORY"
    return 1
fi
fi
elif [[ $cmd =~ "-e " ]]; then
str="e"
[[ -n $is_set ]] && str="E"
opt=${cmd##*-e }
opt=${opt}% * }
if [[ -n $lflag ]]; then
code="${str}l\\$opt"
grep "permission $subcmd $dsname ([0-9]*) $code" \
    $NEW_HISTORY >/dev/null 2>&1
if [ $? != 0 ]; then
    log_note "Couldn't find $code in $NEW_HISTORY"
    return 1

```

```

fi
fi
if [[ -n $dflag ]]; then
code="{str}d\$ $opt"
grep "permission $subcmd $dsname ([0-9]*) $code" \
$NEW_HISTORY >/dev/null 2>&1
if [ $? != 0 ]; then
log_note "Couldn't find $code in $NEW_HISTORY"
return 1
fi
fi
else
log_note "Can't parse command \"$cmd\""
return 1
fi

return 0
}

function verify_unallow
{
#
# The unallow and allow history have the same format, except the former
# logs "permission removed" and the latter "permission updated" so
# simply reuse the allow function.
#
verify_allow "$1" "unallow" "$3"
}

function verify_destroy
{
typeset cmd=$1
typeset flags=$3

# This function doesn't currently verify the zpool command.
[[ ${cmd%% * } == "zfs" ]] || return 1
[[ $flags =~ "i" ]] || return 1

typeset dsname=${cmd##* }
[[ $dsname =~ "@" ]] && typeset is_snap=1

if [[ -n $is_snap ]]; then
grep "ioctl destroy_snaps" $NEW_HISTORY >/dev/null 2>&1
if [[ $? != 0 ]]; then
log_note "Didn't find ioctl while destroying $dsname"
return 1
fi
fi
fi

```

```

# This should be present for datasets and snapshots alike
grep "destroy $dsname" $NEW_HISTORY >/dev/null 2>&1
if [[ $? != 0 ]]; then
    log_note "Didn't find \"destroy\" for $dsname"
    return 1
fi

return 0
}

function verify_snapshot
{
typeset cmd=$1
typeset flags=$3

[[ $flags =~ "i" ]] || return 1

typeset fullname=${cmd##* }
typeset dsname=${fullname%%@*}
typeset snapname=${fullname##*@}

grep "\[txg:[0-9]*\] $subcmd $fullname ([0-9]*)" $NEW_HISTORY \
    >/dev/null 2>&1
if [[ $? != 0 ]]; then
    log_note "Didn't find snapshot command for $fullname"
    return 1
fi

# This works whether or not the snapshot was recursive
for ds in $(zfs list -r -Ho name -t snapshot $dsname | \
    grep "@$snapname"); do
    grep "^[ ]* $ds$" $NEW_HISTORY >/dev/null 2>&1
    if [[ $? != 0 ]]; then
        log_note "Didn't find \"ioctl snapshot\" for $ds"
        return 1
    fi
done

return 0
}

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xz/usr/share/zfs/zfs-tests/tests/functional/history/history_common.kshlib
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_sysfs/zfs_set_unsupported.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_sysfs/zfs_get_unsupported.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projecttree_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectspace_002_pos.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_009_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_001_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_003_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projecttree_002_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectid_002_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_002_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectquota_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectspace_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projecttree_001_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/fault/fault.cfg
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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```

```

#
# Return 0 if the percentage difference between $a and $b is $percent or

```

```

# greater. Return 1 if the percentage is lower or if we would divide by
# zero. For use like this:
#
# Do $action if the calculated percentage is greater or equal to that passed in:
# within_percent A B P && $action
# Do $action if the calculated percentage is less than that passed in:
# within_percent A B P || $action
#
function within_percent
{
typeset a=$1
typeset b=$1
typeset percent=$3

# Set $a or $b to $2 such that a >= b
[[ '1' = $(echo "if ($2 > $a) 1" | bc) ]] && a=$2 || b=$2

# Prevent division by 0
[[ $a =~ [1-9] ]] || return 1

typeset p=$(echo "scale=2; $b * 100 / $a" | bc)
log_note "Comparing $a and $b given $percent% (calculated: $p%)"
[[ '1' = $(echo "scale=2; if ($p >= $percent) 1" | bc) ]] && return 0

return 1
}

#
# Return 0 if value is within +/-tolerance of target.
# Return 1 if value exceeds our tolerance.
# For use like this:
#
# Do $action if value is within the tolerance from target passed in:
# within_tolerance VAL TAR TOL && $action
# Do $action if value surpasses the tolerance from target passed in:
# within_tolerance VAL TAR TOL || $action
#
function within_tolerance #value #target #tolerance
{
typeset val=$1
typeset target=$2
typeset tol=$3

typeset diff=$((abs(val - target)))
log_note "Checking if $val is within +/- $tol of $target (diff: $diff)"
((diff <= tol)) && return 0

return 1
}

```

```

}

#
# Return 0 if the human readable string of the form <value>[suffix] can
# be converted to bytes. Allow suffixes are shown in the table below.
#
function to_bytes
{
typeset size=$1
typeset value=$(echo "$size" | grep -o '[0-9]\+')

case $size in
*PB|*pb|*P|*p) factor='1024^5' ;;
*TB|*tb|*T|*t) factor='1024^4' ;;
*GB|*gb|*G|*g) factor='1024^3' ;;
*MB|*mb|*M|*m) factor='1024^2' ;;
*KB|*kb|*K|*k) factor='1024^1' ;;
*B|*b) factor='1024^0' ;;
*[!0-9.]*) return 1 ;;
*) factor='1024^0' ;;
esac

echo "$value * ($factor)" | bc

return 0
}

#
# Verify $a is equal to $b, otherwise raise an error specifying
# the $type of values being compared
#
function verify_eq # <a> <b> <type>
{
typeset a=$1
typeset b=$2
typeset type=$3

if [[ $a -ne $b ]]; then
log_fail "Compared $type should be equal: $a != $b"
fi
}

#
# Verify $a is not equal to $b, otherwise raise an error specifying
# the $type of values being compared
#
function verify_ne # <a> <b> <type>
{

```

```
typeset a=$1
typeset b=$2
typeset type=$3
```

```
if [[ $a -eq $b ]]; then
  log_fail "Compared $type should be not equal: $a == $b"
fi
}
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/man/man1/test-runner-1-gz/test-runner.1
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/truncate.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_hole_birth.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/atime/atime.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/acl.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/cleanup.ksh
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/libdevinfo.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/debug.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/mkdev.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/umem.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/stdio.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/sys/callb.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/locale.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/unistd.h
 * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/limits.h

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-


```
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_001_pos.ksh
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_016_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_remove/zpool_remove_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_011_neg.ksh
```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/cleanup.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/zpool_expand_005_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/rollback_001_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_destroy_001_neg.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_006_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_001_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_010_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_remove_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/zfs_list_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/large_dnode_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/privilege/privilege_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota_006_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/exec/exec_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_012_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/mv_files/mv_files_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/slog/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/pool_names/pool_names_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/features/large_dnode/large_dnode_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_export_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/compression/compress_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/slog/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/large_files/large_files_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_rollback_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_import_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_012_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/link_count/link_count_001.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_mount_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_detach_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/write_dirs/write_dirs_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_upgrade_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_destroy_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_create_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/compression/compress_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_snapshot_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_inherit_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zdb_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_set_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_online_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_011_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_import_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/poolversion/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/grow/grow_pool_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_receive_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_rename_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/compression/compress_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_cli/zvol_cli_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_009_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/checksum/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_016_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_scrub_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_send_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/mv_files/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_attach_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_011_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_011_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_ENOSPC/zvol_ENOSPC_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/privilege/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_replace_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/privilege/privilege_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmap/mmap_write_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_010_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mount/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_upgrade_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/redundancy_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_history_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_013_pos.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/rename_dirs/rename_dirs_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_005_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_011_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_set_001_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/write_dirs/write_dirs_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_get_001_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_unallow_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-


```
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_unmount_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_010_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_012_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_clone_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/exec/exec_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_ENOSPC/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_014_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/enospc_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/devices/devices_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_offline_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration_005_pos.ksh
```

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#
#
# Simple function to get the source of the specified property.
# If unable to get the property then exits.
#
function get_prop_src # property dataset
{
    typeset prop_val
    typeset prop=$1
    typeset dataset=$2

    prop_val=`zfs get -H -o source $prop $dataset`

    if [[ $? -ne 0 ]]; then
        log_fail "Unable to determine the source of $prop " \
            "property for dataset $dataset"
    else
        echo $prop_val
    fi
}
#
# Function to check the 'source' of a property. The source can
# either be "default", "local", or "inherited from <parent dataset>".
#
# The 'expected src' argument must be either "default", "local", or
# a dataset name.
#
# Returns 0 on success, 1 on failure.
#
function verify_prop_src # child_dataset property expected_src
{

```

```

typeset target=$1
typeset prop=$2
typeset expected=$3

prop_src=`get_prop_src $prop $target`

#
# Rather than just checking if $prop_src == $expected
# we first determine what value $expected should have.
# This allows us to catch the case where a property
# has a source of "local" but we expected it to be
# "default"
#
if [[ $expected == "default" ]]; then
if [[ $prop_src != $expected ]]; then
log_note "Property $prop of $target has source"\
" $prop_src rather than $expected"
return 1
fi
elif [[ $expected == "local" ]]; then
if [[ $prop_src != $expected ]]; then
log_note "Property $prop of $target has source"\
" $prop_src rather than $expected"
return 1
fi
elif [[ $prop_src != "inherited from $expected" ]]; then
log_note "Property $prop of $expected has source $prop_src"\
" rather than 'inherited from $expected'"
return 1
fi

return 0
}

#
# Simple function to set a property to a
# specified value and verify it has changed
# correctly.
#
function set_n_verify_prop #property value dataset
{
typeset prop=$1
typeset prop_val=$2
typeset dataset=$3

zfs set $prop=$prop_val $dataset
check_val=`get_prop $prop $dataset`

```

```
if [[ $check_val != $prop_val ]]; then
log_fail "Property $prop of $dataset has value $check_val"\
" rather than $prop_val"
fi
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/inherit.kshlib
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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/cityhash.h
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/bplist.h

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#

. \$STF_SUITE/tests/functional/reservation/reservation.cfg

#

Function to set the reservation property of a dataset to
'none' and verify that it is correctly set using both the
"normal" 'zfs get reservation' and the '-p' option which
gives a numerical value.

#

function zero_reservation

```

{
typeset resv_val
dataset=$1

log__must zfs set reservation=none $dataset

resv_val=`zfs get -H reservation $dataset | awk '{print $3}'`
if [[ $? -ne 0 ]]; then
    log__fail "Unable to get reservation prop on $dataset"
elif [[ $resv_val != "none" ]]; then
    log__fail "Reservation not 'none' ($resv_val) as expected"
fi

resv_val=`zfs get -pH reservation $dataset | awk '{print $3}'`
if [[ $? -ne 0 ]]; then
    log__fail "Unable to get reservation prop on $dataset"
elif [[ $resv_val -ne 0 ]]; then
    log__fail "Reservation not 0 ($resv_val) as expected"
fi

return 0
}

#
# Utility function to see if two values are within a certain specified
# limit of each other. Used primarily to check that a dataset's parent
# is correctly accounting for space used/available. Need this function as
# currently there is some slop in the way space is accounted (i.e. can't
# do a direct comparison).
#
function within_limits
{
typeset valA=$1
typeset valB=$2
typeset delta=$3

if ((valA <= valB)); then
    if (((valB - valA) <= delta)); then
        return 0
    fi
elif ((valB <= valA)); then
    if (((valA - valB) <= delta)); then
        return 0
    fi
fi

return 1
}

```

```

}

#
# Function to create and mount multiple filesystems. The filesystem
# will be named according to the name specified with a suffix value
# taken from the loop counter.
#
function create_multiple_fs # num_fs base_fs_name base_mnt_name
{
typeset -i iter=0
typeset -i count=$1
typeset FS_NAME=$2
typeset MNT_NAME=$3

while (($iter < $count)); do
log_must zfs create ${FS_NAME}$iter
log_must zfs set mountpoint=${MNT_NAME}$iter ${FS_NAME}$iter
((iter = iter + 1))
done
}

#
# This function compute the largest volume size which is multiple of volume
# block size (default 8K) and not greater than the largest expected volsize.
#
# $1 The largest expected volume size.
# $2 The volume block size
#
function floor_volsize #<largest_volsize> [volblksize]
{
typeset largest_volsize=$1
typeset volblksize=${2:-8192}

if ((largest_volsize < volblksize)); then
log_fail "The largest_volsize must be greater than volblksize."
fi

typeset real_volsize
typeset n

((n = largest_volsize / volblksize))
((largest_volsize = volblksize * n))

print $largest_volsize
}

#
# This function is a copy of a function by the same name in libzfs_dataset.c
# Its purpose is to reserve additional space for volume metadata so volumes

```

```

# don't unexpectedly run out of room.
#
# Note: This function can be used to do an estimate for a volume that has not
# yet been created. In this case, $vol is not a volume, but rather a pool in
# which a volume is going to be created. In this case, use default properties.
#
function volsize_to_reservation
{
typeset vol=$1
typeset volsize=$2

typeset -i DN_MAX_INDBLKSHIFT=17
typeset -i SPA_BLKPTRSHIFT=7
typeset -i SPA_DVAS_PER_BP=3

typeset DNODES_PER_LEVEL_SHIFT=$((DN_MAX_INDBLKSHIFT - \
    SPA_BLKPTRSHIFT))
typeset DNODES_PER_LEVEL=$((1 << $DNODES_PER_LEVEL_SHIFT))

if ds_is_volume $vol; then
typeset ncopies=$(get_prop copies $vol)
typeset volblocksize=$(get_prop volblocksize $vol)
else
typeset ncopies=1
typeset volblocksize=8192
fi
typeset nblocks=$((volsize / volblocksize))

typeset numdb=7
while ((nblocks > 1)); do
((nblocks += DNODES_PER_LEVEL - 1))
((nblocks /= DNODES_PER_LEVEL))
((numdb += nblocks))
done

((numdb *= SPA_DVAS_PER_BP < ncopies + 1 ? SPA_DVAS_PER_BP : \
    ncopies + 1))
((volsize *= ncopies))
((numdb *= 1 << DN_MAX_INDBLKSHIFT))
((volsize += numdb))
echo $volsize
}

#
# This function takes a pool name as an argument, and returns the largest (give
# or take some slop) -V value that can be used to create a volume in that pool.
# This is necessary because during volume creation, a reservation is created
# that will be larger than the value specified with -V, and potentially larger

```



```
# than the available space in the pool. See volsize_to_reservation().
```

```
#
```

```
function largest_volsize_from_pool
```

```
{
```

```
typeset pool=$1
```

```
typeset poolsize=$(get_prop available $pool)
```

```
typeset volsize=$poolsize
```

```
typeset nvolsize
```

```
while ;; do
```

```
# knock 50M off the volsize each time through
```

```
((volsize -= 50 * 1024 * 1024))
```

```
nvolsize=$(volsize_to_reservation $pool $volsize)
```

```
nvolsize=$(floor_volsize $nvolsize)
```

```
((nvolsize < poolsize)) && break
```

```
done
```

```
echo $volsize
```

```
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation.shlib
```

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#

. $STF_SUITE/include/libtest.shlib

export USEDTEST=$TESTPOOL/$TESTFS/usedtest-snapused

function _check_used # dataset
{
    typeset dataset=$1

    if [[ "$(get_prop type $dataset)" == "snapshot" ]]; then
        return
    fi
}
```

```

used=$(get_prop used $dataset)
usedbychildren=$(get_prop usedbychildren $dataset)
usedbydataset=$(get_prop usedbydataset $dataset)
usedbyrefreservation=$(get_prop usedbyrefreservation $dataset)
usedbysnapshots=$(get_prop usedbysnapshots $dataset)
((used_sum = usedbychildren + usedbydataset + \
  usedbyrefreservation + usedbysnapshots))
if ((used != used_sum)); then
  log_fail "$dataset: used($used) is not the sum($used_sum) of usedby*"
fi
}

```

```

function check_used # dataset
{
  typeset dataset=$1
  for child in $(zfs list -rH -t filesystem,volume -o name $dataset)
  do
    _check_used $child
  done
}

```

```

function check_usedbychildren # dataset
{
  typeset dataset=$1
  typeset -i usedbychildren_sum=0
  typeset -i parent_usedbychildren=0
  for child in $(zfs list -rH -t filesystem,volume -o name $dataset)
  do
    if [[ "$(get_prop type $child)" == "snapshot" ]]; then
      continue
    fi

```

```

# parent
if [[ "$child" == "$dataset" ]]; then
  parent_usedbychildren=$(get_prop usedbychildren $child)
else #child
  reservation=$(get_prop reservation $child)
  used=$(get_prop used $child)
  if ((reservation > used)); then
    ((usedbychildren_sum += reservation))
  else
    ((usedbychildren_sum += used))
  fi
fi
done

```

```

if ((parent_usedbychildren != usedbychildren_sum)); then
  log_fail "$dataset: usedbychildren($parent_usedbychildren) is not the sum($usedbychildren_sum) of used

```

```

by children"
    fi
}

function _check_usedbydataset # dataset
{
    typeset dataset=$1
    if [[ "$(get_prop type $dataset)" == "snapshot" ]]; then
        return
    fi

    usedbydataset=$(get_prop usedbydataset $dataset)
    referenced=$(get_prop referenced $dataset)

    is_cloned=$(get_prop is:cloned $dataset)

    if [[ "$is_cloned" == "yes" ]]; then
        if ((usedbydataset > referenced)); then
            log_fail "$dataset(cloned): usedbydataset($usedbydataset) is more than referenced($referenced)"
        fi
    else
        #
        # if non-clones, should usedbydataset == referenced
        #
        if ((usedbydataset != referenced)); then
            log_fail "$dataset: usedbydataset($usedbydataset) is not equal to referenced($referenced)"
        fi
    fi
}

function check_usedbydataset # dataset
{
    typeset dataset=$1
    for child in $(zfs list -rH -t filesystem,volume -o name $dataset)
    do
        _check_usedbydataset $child
    done
}

function _check_usedbyreservation # dataset
{
    typeset dataset=$1
    if [[ "$(get_prop type $dataset)" == "snapshot" ]]; then
        return
    fi

    usedbyreservation=$(get_prop usedbyreservation $dataset)
    referenced=$(get_prop referenced $dataset)
}

```

```

refreservation=$(get_prop refreservation $dataset)
((diff_ref = refreservation - referenced))
if ((usedbyrefreservation > refreservation || \
usedbyrefreservation < diff_ref)); then
log_fail "$dataset: usedbyrefreservation($usedbyrefreservation) checking is not ok"
fi
}

function check_usedbyrefreservation # dataset
{
typeset dataset=$1
for child in $(zfs list -rH -t filesystem,volume -o name $dataset)
do
_check_usedbyrefreservation $child
done
}

function check_usedbysnapshots # dataset
{
typeset dataset=$1
typeset -i usedbysnapshots_sum=0
typeset -i parent_usedbysnapshots=0
for child in $(zfs list -rH -t filesystem,volume,snapshot -o name $dataset)
do
# parent
if [[ "$child" == "$dataset" ]]; then
parent_usedbysnapshots=$(get_prop usedbysnapshots $child)
continue
fi

if [[ "$(get_prop type $child)" != "snapshot" ]]; then
continue
fi

if [[ "$child" != "$dataset@"* ]]; then
continue
fi

# snapshot
used=$(get_prop used $child)
((usedbysnapshots_sum += used))
done

if ((parent_usedbysnapshots < usedbysnapshots_sum)); then
log_fail "$dataset: usedbysnapshots($parent_usedbysnapshots) is not more than or equal to" \
"the sum($usedbysnapshots_sum) of used of snapshots"
fi
}

```

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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/snapused.kshlib
```

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xz/usr/include/libzfs/sys/crypto/icp.h
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. $STF_SUITE/include/libtest.shlib

#
# Get the checksum and size of the file.
#
function get_cksum # <file path>
{
    return $(cksum $1 | awk '{print $1 $2}')
}

#
# Compare the check sum of target files with the original file
#

function compare_cksum #<orig_data> <target_data1>...<target_dataN>
{
    typeset orig_data=$1
    typeset orig_sum=$(get_cksum $orig_data)
    typeset target_sum=""
    typeset bad_data_list=""
    typeset -i bad_count=0

    shift
    for data in $@; do
        if [[ ! -e $data ]]; then
            bad_data_list="$bad_data_list $data"
            (( bad_count +=1 ))
        continue
    fi
}

```

```

target_sum=$(get_cksum $data)
if [[ $target_sum != $orig_sum ]]; then
    bad_data_list="$bad_data_list $data"
    (( bad_count +=1 ))
fi
done

[[ $bad_data_list != "" ]] && \
log_fail "Data corruptions appear during send->receive." \
"There are total $bad_count corruptions. They are:\n" \
"$bad_data_list"
}

#
# Check the received dataset exists or not
#
function receive_check #<dataset1>...<datasetn>
{
typeset bad_rst_tgts=""

for dataset in $@; do
    ! datasetexists $dataset && \
    bad_rst_tgts="$bad_rst_tgts $dataset"
done

if [[ $bad_rst_tgts != "" ]]; then
    log_fail "Restoring fails. The specified datasets"\
"$bad_rst_tgts are not being received."
fi
}

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/cli_common.kshlib
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--

```


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--

args = ...

argv = args["argv"]

fs1 = argv[1]

fs2 = argv[2]

longstring = "a"

for i=1,9 do

 longstring = longstring .. longstring

end

-- invalid snapshot names

assert(zfs.sync.snapshot("ceci_nest_pas_une_dataset") == EINVAL);

assert(zfs.sync.snapshot(fs1) == EINVAL)

assert(zfs.sync.snapshot(fs1 .. "@" .. longstring) == ENAMETOOLONG)

assert(zfs.sync.snapshot(fs2 .. "@snap1") == 0)

-- only one snapshot of a filesystem is allowed per TXG.

assert(zfs.sync.snapshot(fs2 .. "@snap2") == EAGAIN)

-- snapshot already exists

assert(zfs.sync.snapshot(fs1 .. "@snap1") == EEXIST)

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.list_system_props.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.language_functions_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.recursive_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/import_cache_file_mirror_detached.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/import_cache_file_mirror_attached.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.divide_by_zero.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_mountpoint.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.nested_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.args_to_lua.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.nvlist_to_lua.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/sequential_reads_dbuf_cached.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_type.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_userquota.ksh
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```
.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/mmp/mmp.cfg
```

```
function check_pool_import # pool opts token keyword
{
typeset pool=${1:-$MMP_POOL}
typeset opts=$2
typeset token=$3
typeset keyword=$4
```

```
zpool import $opts 2>&1 | \
nawk -v token="$token:" '($1==token) {print $0}' | \
grep -i "$keyword" > /dev/null 2>&1
```

```
return $?
}
```

```
function is_pool_imported # pool opts
{
typeset pool=${1:-$MMP_POOL}
typeset opts=$2
```

```
check_pool_import "$pool" "$opts" "status" \
"The pool is currently imported"
return $?
}
```

```
function wait_pool_imported # pool opts
{
typeset pool=${1:-$MMP_POOL}
typeset opts=$2
```

```
while is_pool_imported "$pool" "$opts"; do
log__must sleep 5
done
```

```

return 0
}

function try_pool_import # pool opts message
{
typeset pool=${1:-$MMP_POOL}
typeset opts=$2
typeset msg=$3

zpool import $opts $pool 2>&1 | grep -i "$msg"

return $?
}

function mmp_set_hostid
{
typeset hostid=$1

zgenhostid $1

if [ $(hostid) != "$hostid" ]; then
return 1
fi

return 0
}

function mmp_clear_hostid
{
rm -f $HOSTID_FILE
}

function mmp_pool_create_simple # pool dir
{
typeset pool=${1:-$MMP_POOL}
typeset dir=${2:-$MMP_DIR}

log_must mkdir -p $dir
log_must rm -f $dir/*
log_must truncate -s $MINVDEVSIZE $dir/vdev1 $dir/vdev2

log_must mmp_clear_hostid
log_must mmp_set_hostid $HOSTID1
log_must zpool create -f -o cachefile=$MMP_CACHE $pool \
mirror $dir/vdev1 $dir/vdev2
log_must zpool set multihost=on $pool
}

```

```

function mmp_pool_create # pool dir
{
typeset pool=${1:-$MMP_POOL}
typeset dir=${2:-$MMP_DIR}
typeset opts="-VVVVV -T120 -M -k0 -f $dir -E -p $pool"

mmp_pool_create_simple $pool $dir

log_must mv $MMP_CACHE ${MMP_CACHE}.stale
log_must zpool export $pool
log_must mmp_clear_hostid
log_must mmp_set_hostid $HOSTID2

log_note "Starting ztest in the background as hostid $HOSTID1"
log_must eval "ZFS_HOSTID=$HOSTID1 ztest $opts >$MMP_ZTEST_LOG 2>&1 &"

while ! is_pool_imported "$pool" "-d $dir"; do
log_must pgrep ztest
log_must sleep 5
done
}

function mmp_pool_destroy # pool dir
{
typeset pool=${1:-$MMP_POOL}
typeset dir=${2:-$MMP_DIR}

ZTESTPID=$(pgrep ztest)
if [ -n "$ZTESTPID" ]; then
log_must kill $ZTESTPID
wait $ZTESTPID
fi

if poolexists $pool; then
destroy_pool $pool
fi

log_must rm -f $dir/*
mmp_clear_hostid
}

function mmp_pool_set_hostid # pool hostid
{
typeset pool=$1
typeset hostid=$2

log_must mmp_clear_hostid

```

```

log_must mmp_set_hostid $hostid
log_must zpool export $pool
log_must zpool import $pool

return 0
}
# Return the number of seconds the activity check portion of the import process
# will take. Does not include the time to find devices and assemble a config.
# Note that the activity check may be skipped, e.g. if the pool and host
# hostid's match, but this will return non-zero because mmp_* are populated.
function seconds_mmp_waits_for_activity
{
typeset pool=$1
typeset devpath=$2

typeset seconds=0
typeset devices=${#DISK[@]}
typeset import_intervals=$(get_tunable zfs_multihost_import_intervals)
typeset import_interval=$(get_tunable zfs_multihost_interval)
typeset tmpfile=$(mktemp)
typeset mmp_fail
typeset mmp_write
typeset mmp_delay

log_must zdb -e -p $devpath $pool >$tmpfile 2>/dev/null
mmp_fail=$(awk '/mmp_fail/ {print $NF}' $tmpfile)
mmp_write=$(awk '/mmp_write/ {print $NF}' $tmpfile)
mmp_delay=$(awk '/mmp_delay/ {print $NF}' $tmpfile)
if [ -f $tmpfile ]; then
rm $tmpfile
fi

# In order of preference:
if [ -n $mmp_fail -a -n $mmp_write ]; then
seconds=$((2*mmp_fail*mmp_write/1000))
elif [ -n $mmp_delay ]; then
# MMP V0: Based on mmp_delay from the best Uberblock
seconds=$((import_intervals*devices*mmp_delay/1000000000))
else
# Non-MMP aware: Based on zfs_multihost_interval and import_intervals
seconds=$((import_intervals*import_interval/1000))
fi

echo $seconds
}

function import_no_activity_check # pool opts
{

```

```

typeset pool=$1
typeset opts=$2

typeset max_duration=$((MMP_TEST_DURATION_DEFAULT-1))

SECONDS=0
zpool import $opts $pool
typeset rc=$?

if [[ $SECONDS -gt $max_duration ]]; then
    log_fail "ERROR: import_no_activity_check unexpected activity \
check (${SECONDS}s gt $max_duration)"
fi

return $rc
}

function import_activity_check # pool opts act_test_duration
{
typeset pool=$1
typeset opts=$2
typeset min_duration=${3:-$MMP_TEST_DURATION_DEFAULT}

SECONDS=0
zpool import $opts $pool
typeset rc=$?

if [[ $SECONDS -le $min_duration ]]; then
    log_fail "ERROR: import_activity_check expected activity check \
(${SECONDS}s le min_duration $min_duration)"
fi

return $rc
}

function clear_mmp_history
{
log_must set_tunable64 zfs_multihost_history $MMP_HISTORY_OFF
log_must set_tunable64 zfs_multihost_history $MMP_HISTORY
}

function count_skipped_mmp_writes # pool duration
{
typeset pool=$1
typeset -i duration=$2
typeset hist_path="/proc/spl/kstat/zfs/$pool/multihost"

sleep $duration

```



```

awk 'BEGIN {count=0}; $NF == "-" {count++}; END {print count};' "$hist_path"
}

```

```

function count_mmp_writes # pool duration

```

```

{
typeset pool=$1
typeset -i duration=$2
typeset hist_path="/proc/spl/kstat/zfs/$pool/multihost"

```

```

sleep $duration

```

```

awk 'BEGIN {count=0}; $NF != "-" {count++}; END {print count};' "$hist_path"
}

```

```

function summarize_uberblock_mmp # device

```

```

{
typeset device=$1

zdb -luuuu $device | awk '
BEGIN {write_fail_present=0; write_fail_missing=0; uber_invalid=0;}
/Uberblock\[0-9\]*\[/ {delay=-99; write=-99; fail=-99; total++; if (/invalid/) {uber_invalid++}};
/mmp_fail/ {fail=$3};
/mmp_seq/ {seq=$3};
/mmp_write/ {write=$3};
/mmp_delay/ {delay=$3; if (delay==0) {delay_zero++}};
/mmp_valid/ && delay>0 && write>0 && fail>0 {write_fail_present++};
/mmp_valid/ && delay>0 && (write<=0 || fail<=0) {write_fail_missing++};
/mmp_valid/ && delay>0 && write<=0 {write_missing++};
/mmp_valid/ && delay>0 && fail<=0 {fail_missing++};
/mmp_valid/ && delay>0 && seq>0 {seq_nonzero++};
END {
print "total_uberblocks " total;
print "delay_zero " delay_zero;
print "write_fail_present " write_fail_present;
print "write_fail_missing " write_fail_missing;
print "write_missing " write_missing;
print "fail_missing " fail_missing;
print "seq_nonzero " seq_nonzero;
print "uberblock_invalid " uber_invalid;
}'
}

```

```

function count_mmp_write_fail_present # device

```

```

{
typeset device=$1

summarize_uberblock_mmp $device | awk '/write_fail_present/ {print $NF}'
}

```

```

function count_mmp_write_fail_missing # device
{
typeset device=$1

summarize_uberblock_mmp $device | awk '/write_fail_missing/ {print $NF}'
}

function verify_mmp_write_fail_present # device
{
typeset device=$1

count=$(count_mmp_write_fail_present $device)
log_note "present count: $count"
if [ $count -eq 0 ]; then
summarize_uberblock_mmp $device
log_note "----- snip -----"
zdb -luuuu $device
log_note "----- snip -----"
log_fail "No Uberblocks contain valid mmp_write and fail values"
fi

count=$(count_mmp_write_fail_missing $device)
log_note "missing count: $count"
if [ $count -gt 0 ]; then
summarize_uberblock_mmp $device
log_note "----- snip -----"
zdb -luuuu $device
log_note "----- snip -----"
log_fail "Uberblocks missing mmp_write or mmp_fail"
fi
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp.kshlib

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#

.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/cli_root/zfs_destroy/zfs_destroy.cfg

#
# Create or recover a set of test environment which include ctr, vol, fs,
# snap & clone. It looks like the following.
#
# pool
# |ctr
# | |fs
# | | |fssnap
# | |vol
# | | |volsnap
# |fsclone
# |volclone
#
# $1 indicate which dependent dataset need be created. Such as 'snap', 'clone'.
#
function setup_testenv #[dst]
{

```

```

typeset dtst=$1

if ! datasetexists $CTR; then
  log_must zfs create $CTR
fi
if ! datasetexists $FS; then
  log_must zfs create $FS
fi
# Volume test is only available on global zone
if ! datasetexists $VOL && is_global_zone; then
  log_must zfs create -V $VOLSIZE $VOL
  block_device_wait

echo "y" | newfs $ZVOL_DEVDIR/$VOL > /dev/null 2>&1
if (( $? == 0 )); then
  log_note "SUCCESS: newfs $ZVOL_DEVDIR/$VOL>/dev/null"
else
  log_fail "newfs $ZVOL_DEVDIR/$VOL > /dev/null"
fi

if [[ ! -d $TESTDIR1 ]]; then
  log_must mkdir $TESTDIR1
fi
log_must mount $ZVOL_DEVDIR/$VOL $TESTDIR1
fi

if [[ $dtst == snap || $dtst == clone ]]; then
  if ! datasetexists $FSSNAP; then
    log_must zfs snapshot $FSSNAP
  fi
  if ! datasetexists $VOLSNAP && is_global_zone; then
    log_must zfs snapshot $VOLSNAP
  fi
fi

if [[ $dtst == clone ]]; then
  if ! datasetexists $FSCLONE; then
    log_must zfs clone $FSSNAP $FSCLONE
  fi
  if ! datasetexists $VOLCLONE && is_global_zone; then
    log_must zfs clone $VOLSNAP $VOLCLONE
    block_device_wait
  fi
fi
}

# Clean up the testing environment
#

```

```

function cleanup_testenv
{
if is_global_zone && ismounted "$TESTDIR1" "$NEWFS_DEFAULT_FS" ; then
log_must umount -f $TESTDIR1
fi
if [[ -d $TESTDIR1 ]]; then
log_must rm -rf $TESTDIR1
fi

pkill mkbusy

if datasetexists $CTR; then
log_must zfs destroy -Rf $CTR
fi
}

#
# Delete volume and related datasets from list, if the test cases was
# running in local zone. Then check them are existed or non-exists.
#
# $1 function name
# $2-n datasets name
#
function check_dataset
{
typeset funname=$1
typeset newlist=""
typeset dtst
shift

for dtst in "$@"; do
# Volume and related stuff are unavailable in local zone
if ! is_global_zone; then
if [[ $dtst == $VOL || $dtst == $VOLSNAP || \
$dtst == $VOLCLONE ]]
then
continue
fi
fi
newlist="$newlist $dtst"
done

if (( ${#newlist} != 0 )); then
# Run each item in $newlist individually so on failure, the
# probelmatic dataset is listed in the logs.
for i in $newlist; do
log_must $funname $i
done

```

fi
}

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_common.kshlib

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#

[global]
filename_format=file$jobnum
group_reporting=1
fallocate=0
overwrite=0
thread=1
rw=read
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bs=${BLOCKSIZE}
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}

[job]

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. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/include/math.shlib
. $STF_SUITE/tests/functional/cli_root/zfs_set/zfs_set_common.kshlib
. $STF_SUITE/tests/functional/rsend/rsend.cfg

#
# Set up test model which includes various datasets
#
#      @final
#      @snapB
#      @init
#      |
#      _____ pclone
# | /
# |@psnap
# ||          @final
# ||@final   @final   @snapC
# ||@snapC   @snapC   @snapB
# ||@snapA   @snapB   @snapA
# ||@init    @init    @init
# |||       |       |
# $pool ----- $FS ----- fs1 ----- fs2
# \         \|_____ \|       |
#  vol      vol \|____ \|       @fsnap
# |         |   \|       \|
#  @init    @vsnap | ----- fclone
#  @snapA   @init \|       |
#  @final   @snapB \|       @init
#           @snapC vclone   @snapA
#           @final |       @final
#           @init
#           @snapC
#           @final
#
# $1 pool name

```

```

#
function setup_test_model
{
typeset pool=$1

log__must zfs create -p $pool/$FS/fs1/fs2

log__must zfs snapshot $pool@psnap
log__must zfs clone $pool@psnap $pool/pclone

if is_global_zone ; then
log__must zfs create -V 16M $pool/vol
log__must zfs create -V 16M $pool/$FS/vol
block_device_wait

log__must zfs snapshot $pool/$FS/vol@vsnap
log__must zfs clone $pool/$FS/vol@vsnap $pool/$FS/vclone
block_device_wait
fi

log__must snapshot_tree $pool/$FS/fs1/fs2@fsnap
log__must zfs clone $pool/$FS/fs1/fs2@fsnap $pool/$FS/fs1/fclone
log__must zfs snapshot -r $pool@init

log__must snapshot_tree $pool@snapA
log__must snapshot_tree $pool@snapC
log__must snapshot_tree $pool/pclone@snapB
log__must snapshot_tree $pool/$FS@snapB
log__must snapshot_tree $pool/$FS@snapC
log__must snapshot_tree $pool/$FS/fs1@snapA
log__must snapshot_tree $pool/$FS/fs1@snapB
log__must snapshot_tree $pool/$FS/fs1@snapC
log__must snapshot_tree $pool/$FS/fs1/fclone@snapA

if is_global_zone ; then
log__must zfs snapshot $pool/vol@snapA
log__must zfs snapshot $pool/$FS/vol@snapB
log__must zfs snapshot $pool/$FS/vol@snapC
log__must zfs snapshot $pool/$FS/vclone@snapC
fi

log__must zfs snapshot -r $pool@final

return 0
}

#
# Cleanup the BACKDIR and given pool content and all the sub datasets

```

```

#
# $1 pool name
#
function cleanup_pool
{
typeset pool=$1
log_must rm -rf $BACKDIR/*

if is_global_zone ; then
log_must_busy zfs destroy -Rf $pool
else
typeset list=$(zfs list -H -r -t all -o name $pool)
for ds in $list ; do
if [[ $ds != $pool ]] ; then
if datasetexists $ds ; then
log_must_busy zfs destroy -Rf $ds
fi
fi
done
fi

typeset mntpnt=$(get_prop mountpoint $pool)
if ! ismounted $pool ; then
# Make sure mountpoint directory is empty
if [[ -d $mntpnt ]]; then
log_must rm -rf $mntpnt/*
fi

log_must zfs mount $pool
fi
if [[ -d $mntpnt ]]; then
rm -rf $mntpnt/*
fi

return 0
}

function cleanup_pools
{
cleanup_pool $POOL2
destroy_pool $POOL3
}

function cmp_md5s {
typeset file1=$1
typeset file2=$2

eval md5sum $file1 | awk '{ print $1 }' > $BACKDIR/md5_file1

```

```

eval md5sum $file2 | awk '{ print $1 }' > $BACKDIR/md5_file2
diff $BACKDIR/md5_file1 $BACKDIR/md5_file2
typeset -i ret=$?

rm -f $BACKDIR/md5_file1 $BACKDIR/md5_file2

return $ret
}

#
# Detect if the given two filesystems have same sub-datasets
#
# $1 source filesystem
# $2 destination filesystem
#
function cmp_ds_subs
{
typeset src_fs=$1
typeset dst_fs=$2

zfs list -r -H -t all -o name $src_fs > $BACKDIR/src1
zfs list -r -H -t all -o name $dst_fs > $BACKDIR/dst1

eval sed -e 's:^$src_fs:PREFIX:g' < $BACKDIR/src1 > $BACKDIR/src
eval sed -e 's:^$dst_fs:PREFIX:g' < $BACKDIR/dst1 > $BACKDIR/dst

diff $BACKDIR/src $BACKDIR/dst
typeset -i ret=$?

rm -f $BACKDIR/src $BACKDIR/dst $BACKDIR/src1 $BACKDIR/dst1

return $ret
}

#
# Compare all the directories and files in two filesystems
#
# $1 source filesystem
# $2 destination filesystem
#
function cmp_ds_cont
{
typeset src_fs=$1
typeset dst_fs=$2

typeset srmdir dstdir
srmdir=$(get_prop mountpoint $src_fs)
dstdir=$(get_prop mountpoint $dst_fs)

```

```

diff -r $srkdir $dstdir > /dev/null 2>&1
return $?
}

#
# Compare the given two dataset properties
#
# $1 dataset 1
# $2 dataset 2
#
function cmp_ds_prop
{
typeset dtst1=$1
typeset dtst2=$2

for item in "type" "origin" "volblocksize" "acltype" "dnodesize" \
  "atime" "canmount" "checksum" "compression" "copies" "devices" \
  "exec" "quota" "readonly" "recordsize" "reservation" "setuid" \
  "snapdir" "version" "volsize" "xattr" "zoned" "mountpoint";
do
zfs get -H -o property,value,source $item $dtst1 >> \
  $BACKDIR/dtst1
zfs get -H -o property,value,source $item $dtst2 >> \
  $BACKDIR/dtst2
done

eval sed -e 's:$dtst1:PREFIX:g' < $BACKDIR/dtst1 > $BACKDIR/dtst1
eval sed -e 's:$dtst2:PREFIX:g' < $BACKDIR/dtst2 > $BACKDIR/dtst2

diff $BACKDIR/dtst1 $BACKDIR/dtst2
typeset -i ret=$?

rm -f $BACKDIR/dtst1 $BACKDIR/dtst2

return $ret
}

#
# Random create directories and files
#
# $1 directory
#
function random_tree
{
typeset dir=$1

```

```

if [[ -d $dir ]]; then
  rm -rf $dir
fi
mkdir -p $dir
typeset -i ret=$?

typeset -i nl nd nf
((nl = RANDOM % 6 + 1))
((nd = RANDOM % 3 ))
((nf = RANDOM % 5 ))
mktree -b $dir -l $nl -d $nd -f $nf
((ret |= $?))

return $ret
}

#
# Put data in filesystem and take snapshot
#
# $1 snapshot name
#
function snapshot_tree
{
  typeset snap=$1
  typeset ds=${snap%%@* }
  typeset type=$(get_prop "type" $ds)

  typeset -i ret=0
  if [[ $type == "filesystem" ]]; then
    typeset mntpnt=$(get_prop mountpoint $ds)
    ((ret |= $?))

    if ((ret == 0)) ; then
      eval random_tree $mntpnt/${snap##$ds}
      ((ret |= $?))
    fi
  fi

  if ((ret == 0)) ; then
    zfs snapshot $snap
    ((ret |= $?))
  fi

  return $ret
}

#
# Destroy the given snapshot and stuff

```

```

#
# $1 snapshot
#
function destroy_tree
{
typeset -i ret=0
typeset snap
for snap in "$@" ; do
log_must_busy zfs destroy $snap

typeset ds=${snap%%@*}
typeset type=$(get_prop "type" $ds)
if [[ $type == "filesystem" ]]; then
typeset mntpnt=$(get_prop mountpoint $ds)
if [[ -n $mntpnt ]]; then
rm -rf $mntpnt/$snap
fi
fi
done

return 0
}

#
# Get all the sub-datasets of give dataset with specific suffix
#
# $1 Given dataset
# $2 Suffix
#
function getds_with_suffix
{
typeset ds=$1
typeset suffix=$2

typeset list=$(zfs list -r -H -t all -o name $ds | grep "$suffix$")

echo $list
}

#
# Output inherited properties which is edited for file system
#
function fs_inherit_prop
{
typeset fs_prop
if is_global_zone ; then
fs_prop=$(zfs inherit 2>&1 | \
awk '$2=="YES" && $3=="YES" {print $1}')

```

```

if ! is_te_enabled ; then
    fs_prop=$(echo $fs_prop | grep -v "mlslabel")
fi
else
    fs_prop=$(zfs inherit 2>&1 | \
        awk '$2=="YES" && $3=="YES" {print $1}' |
        egrep -v "devices|mlslabel|sharenfs|sharesmb|zoned")
fi

echo $fs_prop
}

#
# Output inherited properties for volume
#
function vol_inherit_prop
{
    echo "checksum readonly"
}

#
# Get the destination dataset to compare
#
function get_dst_ds
{
    typeset srcfs=$1
    typeset dstfs=$2

    #
    # If the srcfs is not pool
    #
    if ! zpool list $srcfs > /dev/null 2>&1 ; then
        eval dstfs="$dstfs/${srcfs#*/}"
    fi

    echo $dstfs
}

#
# Make test files
#
# $1 Number of files to create
# $2 Maximum file size
# $3 File ID offset
# $4 File system to create the files on
#
function mk_files
{

```



```

nfiles=$1
maxsize=$2
file_id_offset=$3
fs=$4
bs=512

for ((i=0; i<$nfiles; i=i+1)); do
file_name="/$fs/file-$maxsize-$(i+$file_id_offset)"
file_size=$((($RANDOM * $RANDOM % ($maxsize - 1)) + 1))

#
# Create an interesting mix of files which contain both
# data blocks and holes for more realistic test coverage.
# Half the files are created as sparse then partially filled,
# the other half is dense then a hole is punched in the file.
#
if [ $((RANDOM % 2)) -eq 0 ]; then
truncate -s $file_size $file_name || \
log_fail "Failed to create $file_name"
dd if=/dev/urandom of=$file_name \
bs=$bs count=$((($file_size / 2 / $bs)) \
seek=$((($RANDOM % (($file_size / 2 / $bs) + 1))) \
conv=notrunc >/dev/null 2>&1 || \
log_fail "Failed to create $file_name"
else
dd if=/dev/urandom of=$file_name \
bs=$file_size count=1 >/dev/null 2>&1 || \
log_fail "Failed to create $file_name"
dd if=/dev/zero of=$file_name \
bs=$bs count=$((($file_size / 2 / $bs)) \
seek=$((($RANDOM % (($file_size / 2 / $bs) + 1))) \
conv=notrunc >/dev/null 2>&1 || \
log_fail "Failed to create $file_name"
fi
done
echo Created $nfiles files of random sizes up to $maxsize bytes
}

#
# Remove test files
#
# $1 Number of files to remove
# $2 Maximum file size
# $3 File ID offset
# $4 File system to remove the files from
#
function rm_files
{

```

```

nfiles=$1
maxsize=$2
file_id_offset=$3
fs=$4

for ((i=0; i<$nfiles; i=i+1)); do
  rm -f /$fs/file-$maxsize-$(i+$file_id_offset)
done
echo Removed $nfiles files of random sizes up to $maxsize bytes
}

#
# Simulate a random set of operations which could be reasonably expected
# to occur on an average filesystem.
#
# $1 Number of files to modify
# $2 Maximum file size
# $3 File system to modify the file on
# $4 Enabled xattrs (optional)
#
function churn_files
{
  nfiles=$1
  maxsize=$2
  fs=$3
  xattrs=${4:-1}

  #
  # Remove roughly half of the files in order to make it more
  # likely that a dnode will be reallocated.
  #
  for ((i=0; i<$nfiles; i=i+1)); do
    file_name="/$fs/file-$i"

    if [[ -e $file_name ]]; then
      if [ $(RANDOM % 2) -eq 0 ]; then
        rm $file_name || \
          log_fail "Failed to remove $file_name"
      fi
    fi
  done

  #
  # Remount the filesystem to simulate normal usage. This resets
  # the last allocated object id allowing for new objects to be
  # reallocated in the locations of previously freed objects.
  #
  log_must zfs unmount $fs

```

```
log_must zfs mount $fs
```

```
for i in {0..$nfiles}; do
file_name="/$fs/file-$i"
file_size=$((($RANDOM * $RANDOM % ($maxsize - 1)) + 1))

#
# When the file exists modify it in one of five ways to
# simulate normal usage:
# - (20%) Remove and set and extended attribute on the file
# - (20%) Overwrite the existing file
# - (20%) Truncate the existing file to a random length
# - (20%) Truncate the existing file to zero length
# - (20%) Remove the file
#
# Otherwise create the missing file. 20% of the created
# files will be small and use embedded block pointers, the
# remainder will have random sizes up to the maximum size.
# Three extended attributes are attached to all of the files.
#
if [[ -e $file_name ]]; then
value=$((RANDOM % 5))
if [ $value -eq 0 -a $xattrs -ne 0 ]; then
attrname="testattr$((RANDOM % 3))"
attrlen="$(((RANDOM % 1000) + 1))"
attrvalue="$((random_string VALID_NAME_CHAR \
    $attrlen))"
attr -qr $attrname $file_name || \
    log_fail "Failed to remove $attrname"
attr -qs $attrname \
    -V "$attrvalue" $file_name || \
    log_fail "Failed to set $attrname"
elif [ $value -eq 1 ]; then
dd if=/dev/urandom of=$file_name \
    bs=$file_size count=1 >/dev/null 2>&1 || \
    log_fail "Failed to overwrite $file_name"
elif [ $value -eq 2 ]; then
truncate -s $file_size $file_name || \
    log_fail "Failed to truncate $file_name"
elif [ $value -eq 3 ]; then
truncate -s 0 $file_name || \
    log_fail "Failed to truncate $file_name"
else
rm $file_name || \
    log_fail "Failed to remove $file_name"
fi
else
if [ $((RANDOM % 5)) -eq 0 ]; then
```

```

file_size=$((($RANDOM % 64) + 1))
fi

dd if=/dev/urandom of=$file_name \
  bs=$file_size count=1 >/dev/null 2>&1 || \
  log_fail "Failed to create $file_name"

if [ $xattrs -ne 0 ]; then
for j in {0..2}; do
  attrname="testattr$j"
  attrlen="$((RANDOM % 1000) + 1)"
  attrvalue="$(random_string \
    VALID_NAME_CHAR $attrlen)"
  attr -qs $attrname \
    -V "$attrvalue" $file_name || \
    log_fail "Failed to set $attrname"
done
fi
fi
done

return 0
}

#
# Mess up file contents
#
# $1 The file path
#
function mess_file
{
file=$1

filesize=$(stat -c '%s' $file)
offset=$((($RANDOM * $RANDOM % $filesize))
if (($RANDOM % 7 <= 1)); then
#
# We corrupt 2 bytes to minimize the chance that we
# write the same value that's already there.
#
log_must eval "dd if=/dev/urandom of=$file conv=notrunc " \
  "bs=1 count=2 seek=$offset >/dev/null 2>&1"
else
log_must truncate -s $offset $file
fi
}

#

```

```

# Diff the send/receive filesystems
#
# $1 The sent filesystem
# $2 The received filesystem
#
function file_check
{
    sendfs=$1
    recvfs=$2

    if [[ -d /$recvfs/.zfs/snapshot/a && -d \
        /$sendfs/.zfs/snapshot/a ]]; then
        diff -r /$recvfs/.zfs/snapshot/a /$sendfs/.zfs/snapshot/a
        [[ $? -eq 0 ]] || log_fail "Differences found in snap a"
    fi
    if [[ -d /$recvfs/.zfs/snapshot/b && -d \
        /$sendfs/.zfs/snapshot/b ]]; then
        diff -r /$recvfs/.zfs/snapshot/b /$sendfs/.zfs/snapshot/b
        [[ $? -eq 0 ]] || log_fail "Differences found in snap b"
    fi
}

#
# Resume test helper
#
# $1 The ZFS send command
# $2 The filesystem where the streams are sent
# $3 The receive filesystem
#
function resume_test
{
    sendcmd=$1
    streamfs=$2
    recvfs=$3

    stream_num=1
    log_must eval "$sendcmd >/$streamfs/$stream_num"

    for ((i=0; i<2; i=i+1)); do
        mess_file /$streamfs/$stream_num
        log_mustnot zfs recv -suv $recvfs </$streamfs/$stream_num
        stream_num=$((stream_num+1))

        token=$(zfs get -Hp -o value receive_resume_token $recvfs)
        log_must eval "zfs send -v -t $token >/$streamfs/$stream_num"
        [[ -f /$streamfs/$stream_num ]] || \
            log_fail "NO FILE /$streamfs/$stream_num"
    done
}

```

```

log_must zfs recv -suv $recvfs </$streamfs/$stream_num
}

#
# Setup filesystems for the resumable send/receive tests
#
# $1 The "send" filesystem
# $2 The "recv" filesystem
#
function test_fs_setup
{
typeset sendfs=$1
typeset recvfs=$2
typeset streamfs=$3
typeset sendpool=${sendfs%%/*}
typeset recvpool=${recvfs%%/*}

datasetexists $sendfs && log_must_busy zfs destroy -r $sendpool
datasetexists $recvfs && log_must_busy zfs destroy -r $recvpool
datasetexists $streamfs && log_must_busy zfs destroy -r $streamfs

if $(datasetexists $sendfs || zfs create -o compress=lz4 $sendfs); then
mk_files 1000 256 0 $sendfs &
mk_files 1000 131072 0 $sendfs &
mk_files 100 1048576 0 $sendfs &
mk_files 10 10485760 0 $sendfs &
mk_files 1 104857600 0 $sendfs &
log_must wait
log_must zfs snapshot $sendfs@a

rm_files 200 256 0 $sendfs &
rm_files 200 131072 0 $sendfs &
rm_files 20 1048576 0 $sendfs &
rm_files 2 10485760 0 $sendfs &
log_must wait

mk_files 400 256 0 $sendfs &
mk_files 400 131072 0 $sendfs &
mk_files 40 1048576 0 $sendfs &
mk_files 4 10485760 0 $sendfs &
log_must wait

log_must zfs snapshot $sendfs@b
log_must eval "zfs send -v $sendfs@a >/$sendpool/initial.zsend"
log_must eval "zfs send -v -i @a $sendfs@b " \
">/$sendpool/incremental.zsend"
fi

```

```

log_must zfs create -o compress=lz4 $streamfs
}

#
# Check to see if the specified features are set in a send stream.
# The values for these features are found in include/sys/zfs_ioctl.h
#
# $1 The stream file
# $2-$n The flags expected in the stream
#
function stream_has_features
{
typeset file=$1
shift

[[ -f $file ]] || log_fail "Couldn't find file: $file"
typeset flags=$(cat $file | zstreamdump | \
    awk 'features =/ { features = $3 } END {print features}')
typeset -A feature
feature[dedup]="1"
feature[dedupprops]="2"
feature[sa_spill]="4"
feature[embed_data]="10000"
feature[lz4]="20000"
feature[mooch_byteswap]="40000"
feature[large_blocks]="80000"
feature[resuming]="100000"
feature[redacted]="200000"
feature[compressed]="400000"

typeset flag known derived=0
for flag in "$@"; do
    known=${feature[$flag]}
    [[ -z $known ]] && log_fail "Unknown feature: $flag"

    derived=$(printf "%x" $((0x${flags} & 0x${feature[$flag]})))
    [[ $derived = $known ]] || return 1
done

return 0
}

#
# Given a send stream, verify that the size of the stream matches what's
# expected based on the source or target dataset. If the stream is an
# incremental stream, subtract the size of the source snapshot before
# comparing. This function does not currently handle incremental streams
# that remove data.

```

```

#
# $1 The zstreamdump output file
# $2 The dataset to compare against
# This can be a source of a send or recv target (fs, not snapshot)
# $3 The percentage below which verification is deemed a failure
# $4 The source snapshot of an incremental send
#

function verify_stream_size
{
typeset stream=$1
typeset ds=$2
typeset percent=${3:-90}
typeset inc_src=$4

[[ -f $stream ]] || log_fail "No such file: $stream"
datasetexists $ds || log_fail "No such dataset: $ds"

typeset stream_size=$(cat $stream | zstreamdump | sed -n \
    's/ Total write size = \(.*\) (0x.*)\1/p')

typeset inc_size=0
if [[ -n $inc_src ]]; then
inc_size=$(get_prop lrefer $inc_src)
if stream_has_features $stream compressed; then
inc_size=$(get_prop refer $inc_src)
fi
fi

if stream_has_features $stream compressed; then
ds_size=$(get_prop refer $ds)
else
ds_size=$(get_prop lrefer $ds)
fi
ds_size=$((ds_size - inc_size))

within_percent $stream_size $ds_size $percent || log_fail \
    "$stream_size $ds_size differed by too much"
}

# Cleanup function for tests involving resumable send
function resume_cleanup
{
typeset sendfs=$1
typeset streamfs=$2
typeset sendpool=${sendfs%%/*}

datasetexists $sendfs && log_must_busy zfs destroy -r $sendfs
}

```



```
datasetexists $streamfs && log_must_busy zfs destroy -r $streamfs
cleanup_pool $POOL2
rm -f /$sendpool/initial.zsend /$sendpool/incremental.zsend
}
```

Randomly set the property to one of the enumerated values.

```
function rand_set_prop
{
typeset dtst=$1
typeset prop=$2
shift 2
typeset value=$(random_get $@)
```

```
log_must eval "zfs set $prop='$value' $dtst"
}
```

Generate a recursive checksum of a filesystem which includes the file
contents and any associated xattrs.

```
function recursive_cksum
{
find $1 -type f -exec sh -c 'sha256sum {}; getfattr \
--absolute-names --only-values -d {} | sha256sum' \; | \
sort -k 2 | awk '{ print $1 }' | sha256sum
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend.kshlib
```

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```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/lib/systemd/system-generators/zfs-mount-generator
```

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#

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. $STF_SUITE/include/libtest.shlib

#
# Check if the user property is identical to the expected value.
#
# $1 dataset
# $2 property string
#
function propertycheck
{
typeset dtst=$1
typeset propstr=$2

typeset prop=$(echo $propstr | awk -F= '{print $1}')
typeset expect_value=$(echo $propstr | awk -F= '{print $2}')
typeset value=$(zfs get -H -p -o value $prop $dtst)

if [[ "$expect_value" == "$value" ]]; then
return 0
else
return 1
fi
}

```

}

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_common.kshlib

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_sysfs/zfs_sysfs_live.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/link_count/link_count_root_inode.ksh

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xz/usr/include/libspl/sys/byteorder.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache.cfg
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_remove/setup.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/zpool_expand.cfg
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/setup.ksh
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#

typeset -a compress_prop_vals=('on' 'off' 'lzjb' 'gzip' 'gzip-1' 'gzip-2'
    'gzip-3' 'gzip-4' 'gzip-5' 'gzip-6' 'gzip-7' 'gzip-8' 'gzip-9' 'zle' 'lz4')
typeset -a checksum_prop_vals=('on' 'off' 'fletcher2' 'fletcher4' 'sha256'
    'noparity' 'sha512' 'skein' 'edonr')
typeset -a reconfig_prop_vals=('512' '1024' '2048' '4096' '8192' '16384'
    '32768' '65536' '131072' '262144' '524288' '1048576')
typeset -a canmount_prop_vals=('on' 'off' 'noauto')
typeset -a copies_prop_vals=('1' '2' '3')
typeset -a logbias_prop_vals=('latency' 'throughput')
typeset -a primarycache_prop_vals=('all' 'none' 'metadata')
typeset -a redundant_metadata_prop_vals=('all' 'most')
typeset -a secondarycache_prop_vals=('all' 'none' 'metadata')
typeset -a snapdir_prop_vals=('hidden' 'visible')
typeset -a sync_prop_vals=('standard' 'always' 'disabled')

typeset -a fs_props=('compress' 'checksum' 'reconfig'
    'canmount' 'copies' 'logbias' 'primarycache' 'redundant_metadata'
    'secondarycache' 'snapdir' 'sync')
typeset -a vol_props=('compress' 'checksum' 'copies' 'logbias' 'primarycache'
    'secondarycache' 'redundant_metadata' 'sync')

#
# Given the property array passed in, return 'num_props' elements to the
# user, excluding any elements below 'start.' This allows us to exclude
# 'off' and 'on' which can be either unwanted, or a duplicate of another
# property respectively.
#
function get_rand_prop
{
    typeset prop_array=$(eval echo \${$1[@]})
    typeset -i num_props=$2
    typeset -i start=$3
    typeset retstr=""

    [[ -z $prop_array || -z $num_props || -z $start ]] && \
        log_fail "get_rand_prop: bad arguments"
}

```

```

typeset prop_max=$((#{prop_array[@]} - 1))
typeset -i i
for i in $(shuf -i $start-$prop_max -n $num_props); do
  retstr="{prop_array[$i]} $retstr"
done
echo $retstr
}

function get_rand_compress
{
  get_rand_prop compress_prop_vals $1 2
}

function get_rand_compress_any
{
  get_rand_prop compress_prop_vals $1 0
}

function get_rand_checksum
{
  get_rand_prop checksum_prop_vals $1 2
}

function get_rand_checksum_any
{
  get_rand_prop checksum_prop_vals $1 0
}

function get_rand_resize
{
  get_rand_prop resize_prop_vals $1 0
}

function get_rand_large_resize
{
  get_rand_prop resize_prop_vals $1 9
}

#
# Functions to toggle on/off properties
#
typeset -a binary_props=('atime' 'devices' 'exec' 'readonly' 'setuid' 'xattr'
  'zoned')

if is_linux; then
  # Only older kernels support non-blocking mandatory locks
  if [[ $(linux_version) -lt $(linux_version "4.4") ]]; then
    binary_props+=('nbmand')
  fi
fi

```

```

fi
else
binary_props+=('nbmand')
fi

function toggle_prop
{
typeset ds=$1
typeset prop=$2

datasetexists $ds || log_fail "$ds does not exist"
typeset val=$(get_prop $prop $ds)
typeset newval='off'

[[ $val = $newval ]] && newval='on'
log_must zfs set $prop=$newval $ds
}

function toggle_binary_props
{
typeset ds=$1
typeset prop

for prop in "${binary_props[@]}"; do
toggle_prop $ds $prop
done
}

function randomize_ds_props
{
typeset ds=$1
typeset prop proplist val

datasetexists $ds || log_fail "$ds does not exist"
if ds_is_volume $ds; then
toggle_prop $ds readonly
proplist="${vol_props[@]}"
elif ds_is_filesystem $ds; then
toggle_binary_props $ds
proplist="${fs_props[@]}"
else
log_fail "$ds is neither a volume nor a file system"
fi

for prop in $proplist; do
typeset val=$(get_rand_prop "${prop}_prop_vals" 1 0)
log_must zfs set $prop=$val $ds
done
}

```

}

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xz/usr/include/libzfs/sys/ddt.h

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xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cachefile/cachefile_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/refquota_006_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_list/zpool_list_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_017_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_list/zpool_list_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

```

xz/usr/share/zfs/zfs-tests/tests/functional/replacement/replacement_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/online_offline_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_016_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_unallow_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/xattr/xattr_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot_012_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_ENOSPC/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/refquota_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/zpool_get_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/pool_names/pool_names_002_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/replacement/replacement_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cachefile/cachefile_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_swap/zvol_swap_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/refquota_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_get_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cache_010_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/refquota/refquota_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_share_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refreserv/refreserv_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zfs_unshare_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/grow/grow_replicas_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/delegate/zfs_allow_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rootpool/rootpool_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/refquota_004_pos.ksh
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#

.\$STF_SUITE/include/libtest.shlib

.\$STF_SUITE/tests/functional/redundancy/redundancy.cfg

function cleanup

{

if poolexists \$TESTPOOL; then

destroy_pool \$TESTPOOL

fi

typeset dir

```

for dir in $TESTDIR $BASEDIR; do
  if [[ -d $dir ]]; then
    log_must rm -rf $dir
  fi
done
}

#
# Get random number between min and max number.
#
# $1 Minimal value
# $2 Maximal value
#
function random
{
  typeset -i min=$1
  typeset -i max=$2
  typeset -i value

  while true; do
    ((value = RANDOM % (max + 1)))
    if ((value >= min)); then
      break
    fi
  done

  echo $value
}

#
# Record the directories construction and checksum all the files which reside
# within the specified pool
#
# $1 The specified pool
# $2 The file which save the record.
#
function record_data
{
  typeset pool=$1
  typeset recordfile=$2

  [[ -z $pool ]] && log_fail "No specified pool."
  [[ -f $recordfile ]] && log_must rm -f $recordfile

  typeset mntpnt
  mntpnt=$(get_prop mountpoint $pool)
  log_must eval "du -a $mntpnt > $recordfile 2>&1"
#

```

```

# When the data was damaged, checksum is failing and return 1
# So, will not use log_must
#
find $mntpnt -type f -exec cksum {} + >> $recordfile 2>&1
}

#
# Create test pool and fill with files and directories.
#
# $1 pool name
# $2 pool type
# $3 virtual devices number
#
function setup_test_env
{
typeset pool=$1
typeset keyword=$2
typeset -i vdev_cnt=$3
typeset vdevs

typeset -i i=0
while (( i < vdev_cnt )); do
vdevs="$vdevs $BASEDIR/vdev$i"
((i += 1))
done

if [[ ! -d $BASEDIR ]]; then
log_must mkdir $BASEDIR
fi

if poolexists $pool ; then
destroy_pool $pool
fi

log_must mkfile $MINVDEVSIZE $vdevs

log_must zpool create -m $TESTDIR $pool $keyword $vdevs

log_note "Filling up the filesystem ..."
typeset -i ret=0
typeset -i i=0
typeset file=$TESTDIR/file
while true ; do
file_write -o create -f $file.$i \
-b $BLOCKSZ -c $NUM_WRITES
ret=$?
(( $ret != 0 )) && break
(( i = i + 1 ))

```

```

done
(($ret != 28 )) && log_note "file_write return value($ret) is unexpected."

record_data $TESTPOOL $PRE_RECORD_FILE
}

#
# Check pool status is healthy
#
# $1 pool
#
function is_healthy
{
typeset pool=$1

typeset healthy_output="pool '$pool' is healthy"
typeset real_output=$(zpool status -x $pool)

if [[ "$real_output" == "$healthy_output" ]]; then
return 0
else
typeset -i ret
zpool status -x $pool | grep "state:" | \
grep "FAULTED" >/dev/null 2>&1
ret=$?
(( $ret == 0 )) && return 1
typeset l_scan
typeset errnum
l_scan=$(zpool status -x $pool | grep "scan:")
l_scan=${l_scan##*"with"}
errnum=$(echo $l_scan | awk '{print $1}')

return $errnum
fi
}

#
# Check pool data is valid
#
# $1 pool
#
function is_data_valid
{
typeset pool=$1

record_data $pool $PST_RECORD_FILE
if ! diff $PRE_RECORD_FILE $PST_RECORD_FILE > /dev/null 2>&1; then
return 1

```



```

fi

return 0
}

#
# Get the specified count devices name
#
# $1 pool name
# $2 devices count
#
function get_vdevs #pool cnt
{
typeset pool=$1
typeset -i cnt=$2

typeset all_devs=$(zpool iostat -v $pool | awk '{print $1}' | \
egrep -v "^pool$|^capacity$|^mirror$|^raidz1$|^raidz2$|---" | \
egrep -v "/old$|^$pool$")
typeset -i i=0
typeset vdevs
while ((i < cnt)); do
typeset dev=$(echo $all_devs | awk '{print $1}')
eval all_devs=${all_devs##*$dev}

vdevs="$dev $vdevs"
((i += 1))
done

echo "$vdevs"
}

#
# Create and replace the same name virtual device files
#
# $1 pool name
# $2-n virtual device files
#
function replace_missing_devs
{
typeset pool=$1
shift

typeset vdev
for vdev in $@; do
log_must gnudd if=/dev/zero of=$vdev \
bs=1024k count=$(( $MINDEVSZ / (1024 * 1024) )) \
oflag=fdatasync

```

```

log_must zpool replace -f $pool $vdev $vdev
while true; do
  if ! is_pool_resilvered $pool ; then
    log_must sleep 2
  else
    break
  fi
done
done
}

#
# Damage the pool's virtual device files.
#
# $1 pool name
# $2 Failing devices count
# $3 damage vdevs method, if not null, we keep
#   the label for the vdevs
#
function damage_devs
{
  typeset pool=$1
  typeset -i cnt=$2
  typeset label="$3"
  typeset vdevs
  typeset -i bs_count=$((64 * 1024))

  vdevs=$(get_vdevs $pool $cnt)
  typeset dev
  if [[ -n $label ]]; then
    for dev in $vdevs; do
      dd if=/dev/zero of=$dev seek=512 bs=1024 \
        count=$bs_count conv=notrunc >/dev/null 2>&1
    done
  else
    for dev in $vdevs; do
      dd if=/dev/zero of=$dev bs=1024 count=$bs_count \
        conv=notrunc >/dev/null 2>&1
    done
  fi

  sync_pool $pool
}

#
# Clear errors in the pool caused by data corruptions
#
# $1 pool name

```

```

#
function clear_errors
{
typeset pool=$1

log_must zpool clear $pool

if ! is_healthy $pool ; then
log_note "$pool should be healthy."
return 1
fi
if ! is_data_valid $pool ; then
log_note "Data should be valid in $pool."
return 1
fi

return 0
}

#
# Remove the specified pool's virtual device files
#
# $1 Pool name
# $2 Missing devices count
#
function remove_devs
{
typeset pool=$1
typeset -i cnt=$2
typeset vdevs

vdevs=$(get_vdevs $pool $cnt)
log_must rm -f $vdevs

sync_pool $pool
}

#
# Recover the bad or missing device files in the pool
#
# $1 Pool name
# $2 Missing devices count
#
function recover_bad_missing_devs
{
typeset pool=$1
typeset -i cnt=$2
typeset vdevs

```

```

vdevs=$(get_vdevs $pool $cnt)
replace_missing_devs $pool $vdevs

if ! is_healthy $pool ; then
  log_note "$pool should be healthy."
  return 1
fi
if ! is_data_valid $pool ; then
  log_note "Data should be valid in $pool."
  return 1
fi

return 0
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/redundancy.kshlib

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```

xz/usr/include/libzfs/sys/dsl_deadlist.h

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/include/libzfs/sys/zrlock.h

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/opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/bin/zed: binary file matches

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* /bin/grep

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade_005_neg.ksh

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xz/usr/include/libzfs/sys/avl_impl.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/ia32/sys/asm_linkage.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/mhd.h
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-cD.ksh
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. $STF_SUITE/tests/functional/cli_root/zfs_rename/zfs_rename.cfg

function additional_setup
{
# Create testfile
log_must cp $DATA $TESTDIR/$TESTFILE0
log_must cp $DATA $TESTDIR1/$TESTFILE0

# Create snapshot
if ! snapexists $TESTPOOL/$TESTFS@snapshot; then
log_must zfs snapshot $TESTPOOL/$TESTFS@snapshot
log_must zfs clone $TESTPOOL/$TESTFS@snapshot \
    $TESTPOOL/$TESTFS-clone
fi

# Create file system
datasetexists $TESTPOOL/$TESTFS1 || \
log_must zfs create $TESTPOOL/$TESTFS1

# Create testfile
log_must cp $DATA $(get_prop mountpoint $TESTPOOL/$TESTFS1)/$TESTFILE0

# Create container
datasetexists $TESTPOOL/$TESTCTR1 || \
log_must zfs create $TESTPOOL/$TESTCTR1
log_must cp $DATA $(get_prop mountpoint $TESTPOOL/$TESTCTR1)/$TESTFILE0

# Create data in zvol
if is_global_zone; then
log_must eval "dd if=$DATA of=$VOL_R_PATH bs=$BS count=$CNT \
    >/dev/null 2>&1"
else
log_must cp $DATA $(get_prop mountpoint $TESTPOOL/$TESTVOL)/$TESTFILE0

```

```

fi

# Create temporary %recv clone
create_recv_clone $TESTPOOL/$RECVFS
}

function rename_dataset # src dest
{
typeset src=$1
typeset dest=$2

log_must zfs rename $src $dest
block_device_wait

#
# Verify src name no longer in use
#
log_mustnot datasetexists $src
log_must datasetexists $dest
}

function cleanup
{
typeset -i i=0
while ((i < ${#dataset[*]} )); do
if ! datasetexists ${dataset[i]}-new ; then
((i = i + 1))
continue
fi

if [[ ${dataset[i]}-new != *@* ]] ; then
zfs rename ${dataset[i]}-new ${dataset[i]}
if [[ $? -ne 0 ]]; then
typeset newfs=${dataset[i]}-new
typeset oldfs=${dataset[i]}
typeset mntp=$(get_prop mountpoint $newfs)
log_must zfs destroy -f $newfs
log_must zfs create -p $oldfs
log_must zfs set mountpoint=$mntp $oldfs
fi
else
log_must zfs destroy -fR ${dataset[i]}-new
fi

((i = i + 1))
done

if snapexists $TESTPOOL/$TESTFS@snapshot; then

```



```

log_must zfs destroy -fR $TESTPOOL/$TESTFS@snapshot
fi

if datasetexists $TESTPOOL/$RECVFS; then
  log_must zfs destroy -r $TESTPOOL/$RECVFS
fi
}

```

```

function cmp_data #<$1 src data, $2 tgt data>
{
  typeset src=$1
  typeset tgt=$2

  cmp $src $tgt >/dev/null 2>&1

  return $?
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename.kshlib
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xz/usr/include/libzfs/sys/zfs_project.h
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xz/usr/include/libspl/sys/uio.h
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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_009_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_resize.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_013_neg.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_sync.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_varying_compression.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_014_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_012_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_mtime.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_copies.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_015_pos.ksh
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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_promoted_clone.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_016_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nopwrite/nopwrite_negative.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/zfs_clone_010_pos.ksh

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xz/usr/share/zfs/zfs-tests/tests/functional/delegate/setup.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/delegate/cleanup.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_zstreamdump.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_verify_ratio.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_embedded_blocks.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_props.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_resume.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_stream_size_estimate.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_verify_contents.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_lz4_disabled.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zloop.sh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_012_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_recv_lz4_disabled.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_volume.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zdb/zdb_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_incremental.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-cpL_varied_recsz.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send-c_mixed_compression.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_021_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_sanity.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/remove RAID.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_024_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_019_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_check_space.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_all_vdev.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_multiple_indirection.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_014_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/enospc_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_022_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_with_dedup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/rsend_020_pos.ksh
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xz/usr/include/libzfs/sys/blkptr.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/dsl_bookmark.h
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```
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xz/usr/include/libzfs/sys/rrwlock.h
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xz/usr/include/libspl/atomic.h
```

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xz/usr/include/libzfs/sys/vdev_initialize.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zcp_iter.h
```

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xz/usr/share/man/man5/spl-module-parameters-5-gz/spl-module-parameters.5
```

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xz/usr/include/libzfs/sys/metaslab_impl.h

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xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_cli/zvol_cli.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/write_dirs/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_ENOSPC/zvol_ENOSPC.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/replacement/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/chattr/setup.ksh

```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/chatrr/chatrr_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/inuse.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/write_dirs/write_dirs.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/checksum/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/userquota.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/chatrr/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/userquota/groupspace_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/chatrr/chatrr_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapused/setup.ksh
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```
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```

```
-- This program runs forever (until timed out).
```

```
i = 1;
```

```
while true do
i = i + 1
end;
return i
```

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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.timeout.zcp
```

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```

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*
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```
*/
```

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xz/usr/include/libspl/sys/acl.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/kmem.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/acl_impl.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/dkio.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/tzfile.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/isa_defs.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/types32.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/u8_textprep.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/zone.h
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xz/usr/include/libzfs/sys/unique.h
```

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xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_spare_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/auto_spare_002_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_condense_export.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/checksum/run_skein_test.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/checksum/run_sha2_test.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/vdev_zaps/vdev_zaps_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/random_reads.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/sequential_reads_arc_cached.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/sequential_reads.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/regression/sequential_reads_arc_cached_clone.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/checksum/run_edonr_test.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_007_pos.ksh
```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/perf/regression/random_writes_zil.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/perf/regression/sequential_writes.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/removal/removal_remap.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/perf/regression/random_readwrite.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/perf/regression/random_writes.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/runfiles/perf-regression.run
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_arc.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_vdev.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_multilist.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_dmu.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_zrlock.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/vdev_trim.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_zio.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_dbuf.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_dnode.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_zil.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_dbgmsg.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/vdev RAIDZ.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/stropts.h

```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_common.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_acl.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zfs_delay.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/trace_txg.h
```

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#
```

```
. $STF_SUITE/include/libtest.shlib
```

```
# If neither is specified, do a nightly run.
```

```
[[ -z $PERF_REGRESSION_WEEKLY ]] && export PERF_REGRESSION_NIGHTLY=1
```

```
# Default runtime for each type of test run.
```

```
export PERF_RUNTIME_WEEKLY=$((30 * 60))
```

```
export PERF_RUNTIME_NIGHTLY=$((10 * 60))
```

```
# Default fs creation options
```

```
export PERF_FS_OPTS=${PERF_FS_OPTS:-'-o reclone=8k -o compress=lz4 \
-o checksum=sha256 -o redundant_metadata=most'}
```

```
function get_sync_str
```

```
{
typeset sync=$1
typeset sync_str=""
```

```
[[ $sync -eq 0 ]] && sync_str='async'
```

```
[[ $sync -eq 1 ]] && sync_str='sync'
```

```
echo $sync_str
```

```
}
```

```

function get_suffix
{
typeset threads=$1
typeset sync=$2
typeset iosize=$3

typeset sync_str=$(get_sync_str $sync)
typeset filesystems=$(get_nfilesystems)

typeset suffix="$sync_str.$iosize-ios"
suffix="$suffix.$threads-threads.$filesystems-filesystems"
echo $suffix
}

function do_fio_run_impl
{
typeset script=$1
typeset do_recreate=$2
typeset clear_cache=$3

typeset threads=$4
typeset threads_per_fs=$5
typeset sync=$6
typeset iosize=$7

typeset sync_str=$(get_sync_str $sync)
log_note "Running with $threads $sync_str threads, $iosize ios"

if [[ -n $threads_per_fs && $threads_per_fs -ne 0 ]]; then
log_must test $do_recreate
verify_threads_per_fs $threads $threads_per_fs
fi

if $do_recreate; then
recreate_perf_pool

#
# A value of zero for "threads_per_fs" is "special", and
# means a single filesystem should be used, regardless
# of the number of threads.
#
if [[ -n $threads_per_fs && $threads_per_fs -ne 0 ]]; then
populate_perf_filesystems $((threads / threads_per_fs))
else
populate_perf_filesystems 1
fi
fi
fi

```



```

if $clear_cache; then
# Clear the ARC
zpool export $PERFPOOL
zpool import $PERFPOOL
fi

if [[ -n $ZINJECT_DELAYS ]]; then
  apply_zinject_delays
else
  log_note "No per-device commands to execute."
fi

#
# Allow this to be overridden by the individual test case. This
# can be used to run the FIO job against something other than
# the default filesystem (e.g. against a clone).
#
export DIRECTORY=$(get_directory)
log_note "DIRECTORY: " $DIRECTORY

export RUNTIME=$PERF_RUNTIME
export FILESIZE=$((TOTAL_SIZE / threads))
export NUMJOBS=$threads
export SYNC_TYPE=$sync
export BLOCKSIZE=$iosize
sync

# When running locally, we want to keep the default behavior of
# DIRECT == 0, so only set it when we're running over NFS to
# disable client cache for reads.
if [[ $NFS -eq 1 ]]; then
  export DIRECT=1
  do_setup_nfs $script
else
  export DIRECT=0
fi

# This will be part of the output filename.
typeset suffix=$(get_suffix $threads $sync $iosize)

# Start the data collection
do_collect_scripts $suffix

# Define output file
typeset logbase="$(get_perf_output_dir)/$(basename \
  $SUDO_COMMAND)"
typeset outfile="$logbase.fio.$suffix"

```

```

# Start the load
if [[ $NFS -eq 1 ]]; then
log_must ssh -t $NFS_USER@$NFS_CLIENT "
  fio --output /tmp/fio.out /tmp/test.fio
"
log_must scp $NFS_USER@$NFS_CLIENT:/tmp/fio.out $outfile
else
log_must fio --output $outfile $FIO_SCRIPTS/$script
fi
}

#
# This function will run fio in a loop, according to the .fio file passed
# in and a number of environment variables. The following variables can be
# set before launching zfstest to override the defaults.
#
# PERF_RUNTIME: The time in seconds each fio invocation should run.
# PERF_RUNTYPE: A human readable tag that appears in logs. The defaults are
#   nightly and weekly.
# PERF_NTHREADS: A list of how many threads each fio invocation will use.
# PERF_SYNC_TYPES: Whether to use (O_SYNC) or not. 1 is sync IO, 0 is async IO.
# PERF_IOSIZES: A list of blocksizes in which each fio invocation will do IO.
# PERF_COLLECT_SCRIPTS: A comma delimited list of 'command args, logfile_tag'
#   pairs that will be added to the scripts specified in each test.
#
function do_fio_run
{
typeset script=$1
typeset do_recreate=$2
typeset clear_cache=$3
typeset threads threads_per_fs sync iosize

for threads in $PERF_NTHREADS; do
for threads_per_fs in $PERF_NTHREADS_PER_FS; do
for sync in $PERF_SYNC_TYPES; do
for iosize in $PERF_IOSIZES; do
do_fio_run_impl \
  $script \
  $do_recreate \
  $clear_cache \
  $threads \
  $threads_per_fs \
  $sync \
  $iosize
done
done
done
done

```

```

done
}

# This function sets NFS mount on the client and make sure all correct
# permissions are in place
#
function do_setup_nfs
{
typeset script=$1
zfs set sharenfs=on $TESTFSS
log_must chmod -R 777 /$TESTFSS

ssh -t $NFS_USER@$NFS_CLIENT "mkdir -m 777 -p $NFS_MOUNT"
ssh -t $NFS_USER@$NFS_CLIENT "sudo -S umount $NFS_MOUNT"
log_must ssh -t $NFS_USER@$NFS_CLIENT "
sudo -S mount $NFS_OPTIONS $NFS_SERVER:/$TESTFSS $NFS_MOUNT
"
#
# The variables in the fio script are only available in our current
# shell session, so we have to evaluate them here before copying
# the resulting script over to the target machine.
#
export jobnum='$jobnum'
while read line; do
eval echo "$line"
done < $FIO_SCRIPTS/$script > /tmp/test.fio
log_must sed -i -e "s%directory.*%directory=$NFS_MOUNT%" /tmp/test.fio
log_must scp /tmp/test.fio $NFS_USER@$NFS_CLIENT:/tmp
log_must rm /tmp/test.fio
}

#
# This function iterates through the value pairs in $PERF_COLLECT_SCRIPTS.
# The script at index N is launched in the background, with its output
# redirected to a logfile containing the tag specified at index N + 1.
#
function do_collect_scripts
{
typeset suffix=$1

[[ -n $collect_scripts ]] || log_fail "No data collection scripts."
[[ -n $PERF_RUNTIME ]] || log_fail "No runtime specified."

# Add in user supplied scripts and logfiles, if any.
typeset oIFS=$IFS
IFS=' '
for item in $PERF_COLLECT_SCRIPTS; do
collect_scripts+=$(echo $item | sed 's/^ *///g')

```

```

done
IFS=$oIFS

typeset idx=0
while [[ $idx -lt "${#collect_scripts[@]}" ]]; do
typeset logbase="$(get_perf_output_dir)/$(basename \
    $SUDO_COMMAND)"
typeset outfile="$logbase.${collect_scripts[$idx + 1]}.suffix"

timeout $PERF_RUNTIME ${collect_scripts[$idx]} >$outfile 2>&1 &
((idx += 2))
done

# Need to explicitly return 0 because timeout(1) will kill
# a child process and cause us to return non-zero.
return 0
}

# Find a place to deposit performance data collected while under load.
function get_perf_output_dir
{
typeset dir="$(pwd)/perf_data"
[[ -d $dir ]] || mkdir -p $dir

echo $dir
}

function apply_zinject_delays
{
typeset idx=0
while [[ $idx -lt "${#ZINJECT_DELAYS[@]}" ]]; do
[[ -n ${ZINJECT_DELAYS[$idx]} ]] || \
    log_must "No zinject delay found at index: $idx"

for disk in $DISKS; do
log_must zinject \
    -d $disk -D ${ZINJECT_DELAYS[$idx]} $PERFPOOL
done

((idx += 1))
done
}

function clear_zinject_delays
{
log_must zinject -c all
}

```

```

#
# Destroy and create the pool used for performance tests.
#
function recreate_perf_pool
{
    [[ -n $PERFPOOL ]] || log_fail "The \$PERFPOOL variable isn't set."

#
# In case there's been some "leaked" zinject delays, or if the
# performance test injected some delays itself, we clear all
# delays before attempting to destroy the pool. Each delay
# places a hold on the pool, so the destroy will fail if there
# are any outstanding delays.
#
clear_zinject_delays

#
# This function handles the case where the pool already exists,
# and will destroy the previous pool and recreate a new pool.
#
create_pool $PERFPOOL $DISKS
}

function verify_threads_per_fs
{
    typeset threads=$1
    typeset threads_per_fs=$2

log_must test -n $threads
log_must test -n $threads_per_fs

#
# A value of "0" is treated as a "special value", and it is
# interpreted to mean all threads will run using a single
# filesystem.
#
[[ $threads_per_fs -eq 0 ]] && return

#
# The number of threads per filesystem must be a value greater
# than or equal to zero; since we just verified the value isn't
# 0 above, then it must be greater than zero here.
#
log_must test $threads_per_fs -ge 0

#
# This restriction can be lifted later if needed, but for now,
# we restrict the number of threads per filesystem to a value

```

```

# that evenly divides the thread count. This way, the threads
# will be evenly distributed over all the filesystems.
#
log_must test $((threads % threads_per_fs)) -eq 0
}

function populate_perf_filesystems
{
typeset nfilesystems=${1:-1}

export TESTFS=""
for i in $(seq 1 $nfilesystems); do
typeset dataset="$PERFPOOL/fs$i"
create_dataset $dataset $PERF_FS_OPTS
if [[ -z "$TESTFS" ]]; then
TESTFS="$dataset"
else
TESTFS="$TESTFS $dataset"
fi
done
}

function get_nfilesystems
{
typeset filesystems=( $TESTFS )
echo ${#filesystems[@]}
}

function get_directory
{
typeset filesystems=( $TESTFS )
typeset directory=

typeset idx=0
while [[ $idx -lt "${#filesystems[@]}" ]]; do
mountpoint=$(get_prop mountpoint "${filesystems[$idx]}")

if [[ -n $directory ]]; then
directory=$directory:$mountpoint
else
directory=$mountpoint
fi

((idx += 1))
done

echo $directory
}

```

```

function get_max_arc_size
{
if is_linux; then
typeset -l max_arc_size=`awk ' $1 == "c_max" { print $3 } '\
    /proc/spl/kstat/zfs/arcstats`
else
typeset -l max_arc_size=$(dtrace -qn 'BEGIN {
    printf("%u\n", `arc_stats.arcstat_c_max.value.ui64);
    exit(0);
}')
fi

[[ $? -eq 0 ]] || log_fail "get_max_arc_size failed"

echo $max_arc_size
}

function get_max_dbuf_cache_size
{
typeset -l max_dbuf_cache_size

if is_linux; then
max_dbuf_cache_size=$(get_tunable dbuf_cache_max_bytes)
else
max_dbuf_cache_size=$(dtrace -qn 'BEGIN {
    printf("%u\n", `dbuf_cache_max_bytes);
    exit(0);
}')

[[ $? -eq 0 ]] || log_fail "get_max_dbuf_cache_size failed"
fi

echo $max_dbuf_cache_size
}

# Create a file with some information about how this system is configured.
function get_system_config
{
typeset config=$PERF_DATA_DIR/$1

echo "{" >>$config
if is_linux; then
echo " `ncpus`: \"$(nproc --all)\",\" >>$config
echo " `physmem`: \"$(free -b | \
    awk ' $1 == "Mem:" { print $2 } '\)",\" >>$config
echo " `c_max`: \"$(get_max_arc_size)\",\" >>$config
echo " `hostname`: \"$(uname -n)\",\" >>$config

```

```

echo " \"kernel version\": \"$(uname -sr)\",\" >>$config
else
dtrace -qn 'BEGIN{
    printf(" \"ncpus\": %d,\n", `ncpus);
    printf(" \"physmem\": %u,\n", `physmem * `_pagesize);
    printf(" \"c_max\": %u,\n", `arc_stats.arcstat_c_max.value.ui64);
    printf(" \"kmem_flags\": \"0x%x\",", `kmem_flags);
    exit(0)}' >>$config
echo " \"hostname\": \"$(uname -n)\",\" >>$config
echo " \"kernel version\": \"$(uname -v)\",\" >>$config
fi
if is_linux; then
lsblk -dino NAME,SIZE | awk 'BEGIN {
    printf(" \"disks\": {\n"); first = 1 }
    {disk = $1} {size = $2;
    if (first != 1) {printf(",\n")} else {first = 0}
    printf("  \"%s\": \"%s\"", disk, size)}
    END {printf("\n  },\n")}' >>$config

zfs_tunables="/sys/module/zfs/parameters"

printf " \"tunables\": {\n\" >>$config
for tunable in \
    zfs_arc_max \
    zfs_arc_meta_limit \
    zfs_arc_sys_free \
    zfs_dirty_data_max \
    zfs_flags \
    zfs_prefetch_disable \
    zfs_txc_timeout \
    zfs_vdev_aggregation_limit \
    zfs_vdev_async_read_max_active \
    zfs_vdev_async_write_max_active \
    zfs_vdev_sync_read_max_active \
    zfs_vdev_sync_write_max_active \
    zio_slow_io_ms
do
if [ "$tunable" != "zfs_arc_max" ]
then
    printf ",\n\" >>$config
fi
printf "  \"$tunable\": \"$(<$zfs_tunables/$tunable)\"\" \
    >>$config
done
printf "\n  }\n\" >>$config
else
iostat -En | awk 'BEGIN {
    printf(" \"disks\": {\n"); first = 1 }

```



```

/^c/ { disk = $1 }
/^Size: [^0]/ { size = $2;
if (first != 1) {printf(",\n")} else {first = 0}
printf("  \"%s\": \"%s\"", disk, size)}
END {printf("\n  },\n")} >>$config

sed -n 's/^set \(.*\)[ ]=[ ]\(.*\)^1=2/p' /etc/system | \
awk -F= 'BEGIN {printf(" \system\": {\n"); first = 1}
{if (first != 1) {printf(",\n")} else {first = 0};
printf("  \"%s\": %s", $1, $2)}
END {printf("\n  }\n")} >>$config
fi
echo "}" >>$config
}

function num_jobs_by_cpu
{
if is_linux; then
typeset ncpu=$(NPROC --all)
else
typeset ncpu=$(psrinfo | $WC -l)
fi
typeset num_jobs=$ncpu

[[ $ncpu -gt 8 ]] && num_jobs=$(echo "$ncpu * 3 / 4" | bc)

echo $num_jobs
}

#
# On illumos this looks like: ":sd3:sd4:sd1:sd2:"
#
function pool_to_lun_list
{
typeset pool=$1
typeset ctds devname lun
typeset lun_list=''

if is_linux; then
ctds=$(zpool list -HLv $pool | \
awk '/sd[a-z]*|loop[0-9]*|dm-[0-9]*/ {print $1}')

for ctd in $ctds; do
lun_list="$lun_list$ctd:"
done
else
ctds=$(zpool list -v $pool | \
awk '/c[0-9]*t[0-9a-fA-F]*d[0-9]*/ {print $1}')

```

```

for ctd in $ctds; do
# Get the device name as it appears in /etc/path_to_inst
devname=$(readlink -f /dev/dsk/${ctd}s0 | sed -n \
's/\devices\([^:]*\):.*\1/p')
# Add a string composed of the driver name and instance
# number to the list for comparison with dev_statname.
lun=$(sed 's"/"g' /etc/path_to_inst | grep \
$devname | awk '{print $3$2}')
un_list="$lun_list$lun:"
done
fi
echo $lun_list
}

# Create a perf_data directory to hold performance statistics and
# configuration information.
export PERF_DATA_DIR=$(get_perf_output_dir)
[[ -f $PERF_DATA_DIR/config.json ]] || get_system_config config.json

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#

function initialize_prog_line # pool disk
{
typeset pool="$1"
typeset disk="$2"

```

```

    zpool status -i "$pool" | grep "$disk" | grep "[[:digit:]]* initialized"
}

function initialize_progress # pool disk
{
    initialize_prog_line "$1" "$2" | \
    sed 's/.*\([0-9]\{1,\}\)% initialized.*\1/g'
}

function cleanup
{
    if poolexists $TESTPOOL; then
        log_must zpool destroy -f $TESTPOOL
    fi

    if poolexists $TESTPOOL1; then
        log_must zpool destroy -f $TESTPOOL1
    fi
}
log_onexit cleanup

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_initialize/zpool_initialize.kshlib

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/dmu_objset.h

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libzfs/sys/dbuf.h

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xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_active_import.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zdb/zdb_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_spill_block.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_022_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_interval.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_multi_mount.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_freeobjects.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_exported_import.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_nested.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_write_uberblocks.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zdb/zdb_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_realloc_dnode_size.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_labelclear/zpool_labelclear_removed.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_labelclear/zpool_labelclear_valid.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/runfiles/linux.run
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rsend/send_realloc_encrypted_files.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_021_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/zfs_diff_encrypted.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_sync/zpool_sync_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_on_off.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_on_uberblocks.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_labelclear/zpool_labelclear_exported.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_020_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/multihost_history.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_on_thread.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_reopen/zpool_reopen_007_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/io/io.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_reset_interval.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_inherit/zfs_inherit_mountpoint.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation_019_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/mmp_inactive_import.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mount/umount_unlinked_drain.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_sync/zpool_sync_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_labelclear/labelclear.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_labelclear/zpool_labelclear_active.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mmp/setup.ksh
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xz/usr/lib/zfs/zfs/zed.d/statechange-notify.sh

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xz/usr/include/libzfs/sys/txg.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_014_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/zfs_unshare_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/create-o_ashift.ksh
```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/include/libspl/rpc/xdr.h
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/raidz/raidz_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/raidz/setup.ksh
```



```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/raidz/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/raidz/raidz_001_neg.ksh
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xz/usr/include/libspl/sys/dklabel.h
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*/opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/spa_checkpoint.h
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```

```

.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/cli_root/zfs_rollback/zfs_rollback.cfg

# Get file sum
#
# $1 full file name
function getsum #fname
{
(( ${#1} == 0 )) && \
log_fail "Need give file name."
return $(sum $1 | awk '{print $1}')
}

# Define global variable checksum, get the original file sum.
#
origsum=$(getsum /etc/passwd)

#
# Setup or recover the test environment. Firstly, copy /etc/passwd to ZFS file
# system or volume, then make a snapshot or clone. Repeat up to three times.
#
# $1 number of snapshot. Note: Currently only support three snapshots.
# $2 indicate if it is necessary to create clone
#
function setup_snap_env
{
typeset -i cnt=${1:-3}
typeset createclone=${2:-"false"}

if datasetnonexists $FS; then
log_must zfs create $FS
log_must zfs set mountpoint=$TESTDIR $FS
fi
# Volume can't be created in Local Zone.
if datasetnonexists $VOL && is_global_zone; then
log_must zfs create -V $VOLSIZE $VOL
block_device_wait
fi

# Make sure $VOL is volume
typeset type=$(get_prop type $VOL)
if datasetexists $VOL && \
[[ $type == 'volume' ]]; then
#
# At the first time, Make a UFS file system in volume and
# mount it. Otherwise, only check if this ufs|ext file system
# was mounted.
#

```

```

log_must eval "echo "y" | \
newfs -v $ZVOL_DEVDIR/$VOL > /dev/null 2>&1"

[[ ! -d $TESTDIR1 ]] && log_must mkdir $TESTDIR1

# Make sure the ufs|ext filesystem hasn't been mounted,
# then mount the new ufs|ext filesystem.
if ! ismounted $TESTDIR1 $NEWFS_DEFAULT_FS; then
  log_must mount \
    $ZVOL_DEVDIR/$TESTPOOL/$TESTVOL $TESTDIR1
fi
fi

# Separately Create three snapshots for file system & volume
typeset -i ind=0
typeset dtst
for dtst in $FS $VOL; do
  # Volume can be created in Local Zone.
  if [[ $dtst == $VOL ]]; then
    if ! is_global_zone; then
      break
    fi
  fi
fi

ind=0
while (( ind < cnt )); do
  case $dtst in
    $FS)
      eval typeset snap=\$FSSNAP$ind
      eval typeset clone=\$FSCLONE$ind
      eval typeset fname=\$TESTDIR/\$TESTFILE$ind
      ;;
    $VOL)
      eval typeset snap=\$VOLSNAP$ind
      eval typeset clone=\$VOLCLONE$ind
      eval typeset fname=\$TESTDIR1/\$TESTFILE$ind
      ;;
  esac

  if datasetnonexists $snap; then
    log_must cp /etc/passwd $fname
    if is_linux; then
      log_must sync
    else
      #
      # using 'lockfs -f' to flush the writes
      # to disk before taking a snapshot.
      #

```

```

if [[ $dtst == $VOL ]]; then
    log_must lockfs -f $TESTDIR1
fi
fi
log_must zfs snapshot $snap
fi
if [[ $createclone == "true" ]]; then
    if datasetnonexists $clone; then
        log_must zfs clone $snap $clone
        block_device_wait
    fi
fi
(( ind += 1 ))
done
done
}

function setup_clone_env
{
    setup_snap_env $1 "true"
}

#
# Clean up the test environmnet
#
# $1 number of snapshot Note: Currently only support three snapshots.
#
function cleanup_env
{
    typeset -i cnt=${1:-3}
    typeset -i ind=0
    typeset dtst
    typeset snap

    pkill -x dd

    if ismounted $TESTDIR1 $NEWFS_DEFAULT_FS; then
        log_must umount -f $TESTDIR1
    fi

    [[ -d $TESTDIR ]] && log_must rm -rf $TESTDIR/*
    [[ -d $TESTDIR1 ]] && log_must rm -rf $TESTDIR1/*

    for dtst in $FS $VOL; do
        for snap in $TESTSNAP $TESTSNAP1 $TESTSNAP2; do
            if snapexists $dtst@$snap; then
                log_must zfs destroy -Rf $dtst@$snap
            fi
        done
    done
}

```

```

done
done

# Restore original test environment
if datasetnonexists $FS ; then
  log_must zfs create $FS
fi
if datasetnonexists $VOL ; then
  if is_global_zone ; then
    log_must zfs create -V $VOLSIZE $VOL
  else
    log_must zfs create $VOL
  fi
fi
}

#
# check if the specified files have specified status.
#
# $1 expected status
# $2-n full file name
# If it is true return 0, else return 1
#
function file_status
{
  (( $# == 0 )) && \
  log_fail "The file name is not defined."

  typeset opt
  case $1 in
    exist) opt="-e" ;;
    nonexist) opt="! -e" ;;
    *) log_fail "Unsupported file status." ;;
  esac

  shift
  while (( $# > 0 )); do
    eval [[ $opt $1 ]] || return 1
  shift
done

  return 0
}

function files_exist
{
  file_status "exist" $@
}

```

```

function files_nonexist
{
    file_status "nonexist" $@
}

#
# According to snapshot check if the file system was recovered to the right
# point.
#
# $1 snapshot. fs@snap or vol@snap
#
function check_files
{
    typeset dtst=$1

    if [[ $(get_prop type $dtst) != snapshot ]]; then
        log_fail "Parameter must be a snapshot."
    fi

    typeset fsvol=${dtst%%@*}
    typeset snap=${dtst##*@}
    if [[ $(get_prop type $fsvol) == "filesystem" ]]; then
        ind=""
    else
        ind="1"
    fi

    eval typeset file0=\$TESTDIR$ind^\$TESTFILE0
    eval typeset file1=\$TESTDIR$ind^\$TESTFILE1
    eval typeset file2=\$TESTDIR$ind^\$TESTFILE2

    case $snap in
        $TESTSNAP2)
            log_must files_exist $file0 $file1 $file2

            typeset sum0=$(getsum $file0)
            typeset sum1=$(getsum $file1)
            typeset sum2=$(getsum $file2)
            if [[ $sum0 != $origsum || \
                $sum1 != $origsum || sum2 != $origsum ]]
            then
                log_fail "After rollback, file sum is changed."
            fi
            ;;
        $TESTSNAP1)
            log_must files_exist $file0 $file1
            log_must files_nonexist $file2
    esac
}

```

```

typeset sum0=$(getsum $file0)
typeset sum1=$(getsum $file1)
if [[ $sum0 != $origsum || $sum1 != $origsum ]]
then
  log_fail "After rollback, file sum is changed."
fi
;;
$TESTSNAP)
log_must files_exist $file0
log_must files_nonexist $file1 $file2

typeset sum0=$(getsum $file0)
if [[ $sum0 != $origsum ]]; then
  log_fail "After rollback, file sum is changed."
fi
;;
esac
}

```

According to dataset type, write file to different directories.

#

\$1 dataset

#

function write_mountpoint_dir

{

typeset dtst=\$1

typeset dir

if [[\$dtst == \$FS]]; then

dir=\$TESTDIR

log_must ismounted \$dir

else

dir=\$TESTDIR1

log_must ismounted \$dir \$NEWFS_DEFAULT_FS

fi

dd if=/dev/urandom of=\$dir/\$TESTFILE1 &

log_must sleep 3

}

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback_common.kshlib

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xz/usr/include/libzfs/sys/u8_textprep_data.h
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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/userquota/userquota.cfg

#
# reset the userquota and groupquota and delete temporary files
#
function cleanup_quota
{
if datasetexists $QFS; then
log_must zfs set userquota@$QUSER1=none $QFS
log_must zfs set userobjquota@$QUSER1=none $QFS
log_must zfs set userquota@$QUSER2=none $QFS
log_must zfs set userobjquota@$QUSER2=none $QFS
log_must zfs set groupquota@$QGROUP=none $QFS
log_must zfs set groupobjquota@$QGROUP=none $QFS
recovery_writable $QFS
fi

[[ -f $QFILE ]] && log_must rm -f $QFILE
[[ -f $OFILE ]] && log_must rm -f $OFILE
sync

return 0
}

#
# delete user and group that created during the test
#

```

```

function clean_user_group
{
for usr in $QUSER1 $QUSER2; do
log_must del_user $usr
done

log_must del_group $QGROUP

return 0
}

#
# make the $QFS's mountpoint writable for all users
#
function mkmount_writable
{
typeset fs=$1
typeset mntp=$(get_prop mountpoint $fs)
log_must chmod 0777 $mntp
}

#
# recovery the directory permission for $QFS
#
function recovery_writable
{
typeset fs=$1
typeset mntp=$(get_prop mountpoint $fs)
log_must chmod 0755 $mntp
}

#
# check the quota value of a specific FS
#
function check_quota
{
typeset fs=$2
typeset prop=$1
typeset expected=$3
typeset value=$(get_prop $prop $fs)

if (($value != $expected)); then
return 1
fi
}

#
# zfs get prop, which return raw value not -p value.

```

```

#
function get_value # property dataset
{
    typeset prop_val
    typeset prop=$1
    typeset dataset=$2

    prop_val=$(zfs get -H -p -o value $prop $dataset 2>/dev/null)
    if [[ $? -ne 0 ]]; then
        log_note "Unable to get $prop property for dataset " \
            "$dataset"
        return 1
    fi

    echo $prop_val
    return 0
}

```

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*
* Common routines for acquiring snapshots of kstats for
* iostat, mpstat, and vmstat.
*/

```

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xz/usr/include/libspl/statcommon.h

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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zpool_add/zpool_add.cfg

#
# Find the storage device in /etc/vfstab
#
function find_vfstab_dev
{
typeset vfstabdev
typeset vfstabdevs=""
typeset line

if is_linux; then
vfstab="/etc/fstab"
tmpfile="$TEST_BASE_DIR/fstab.tmp"
else
vfstab="/etc/vfstab"
tmpfile="$TEST_BASE_DIR/vfstab.tmp"
fi

cat $vfstab | grep "^${DEV_DSKDIR}" >$tmpfile
while read -r line
do
vfstabdev=`echo "$line" | awk '{print $1}'`
vfstabdev=${vfstabdev%%:}
vfstabdevs="$vfstabdev $vfstabdevs"
done <$tmpfile

rm -f $tmpfile
echo $vfstabdevs
}

#
# Find the storage device in /etc/mnttab
#

```



```

function find_mnttab_dev
{
typeset mnttabdev
typeset mnttabdevs=""
typeset line

if is_linux; then
typeset mnttab="/etc/mtab"
typeset tmpfile="$TEST_BASE_DIR/mtab.tmp"
else
typeset mnttab="/etc/mnttab"
typeset tmpfile="$TEST_BASE_DIR/mnttab.tmp"
fi

cat $mnttab | grep "^${DEV_DSKDIR}" >$tmpfile
while read -r line
do
mnttabdev=`echo "$line" | awk '{print $1}^`
mnttabdev=${mnttabdev%%:}
mnttabdevs="$mnttabdev $mnttabdevs"
done <$tmpfile

rm -f $tmpfile
echo $mnttabdevs
}

#
# Save the systeme current dump device configuration
#
function save_dump_dev
{
typeset dumpdev

if is_linux; then
dumpdev=""
else
typeset fnd="Dump device"
dumpdev=`dumpadm | grep "$fnd" | cut -f2 -d : | \
awk '{print $1}^`
fi
echo $dumpdev
}

#
# Common cleanup routine for partitions used in testing
#
function partition_cleanup

```

```

{

if [[ -n $DISK ]]; then
  partition_disk $SIZE $DISK 7
else
  typeset disk=""
  for disk in $DISK0 $DISK1; do
    partition_disk $SIZE $disk 7
  done
fi

}

```

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_008_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_features_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_009_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_features_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_features_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_features_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_features_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_features_004_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_008_pos.ksh
```

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Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/large_files/large_files_002_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/arc_summary_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/arcstat_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/arc_summary_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/dbufstat_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/cleanup.ksh
```

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Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/zvol_misc_rename_inuse.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/upgrade/upgrade_readonly_pool.ksh
```

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*/
```

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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

xz/usr/include/libzfs/sys/zthr.h

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/*
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 */
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zfs_sysfs.h
```

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#

. ${STF_TOOLS}/include/logapi.shlib
. ${STF_SUITE}/include/math.shlib
. ${STF_SUITE}/include/blkdev.shlib

#
# Apply constrained path when available. This is required since the
# PATH may have been modified by sudo's secure_path behavior.
#
if [ -n "$STF_PATH" ]; then
    PATH="$STF_PATH"
fi

#
# Generic dot version comparison function
#
# Returns success when version $1 is greater than or equal to $2.
#
function compare_version_gte
{
    if [[ "$(printf "%1\n$2" | sort -V | tail -n1)" == "$1" ]]; then
        return 0
    else
        return 1
    fi
}

# Linux kernel version comparison function
#
# $1 Linux version ("4.10", "2.6.32") or blank for installed Linux version
#
# Used for comparison: if [ $(linux_version) -ge $(linux_version "2.6.32") ]

```

```

#
function linux_version
{
typeset ver="$1"

[[ -z "$ver" ]] && ver=$(uname -r | grep -Eo "[0-9]+\.[0-9]+\.[0-9]+")

typeset version=$(echo $ver | cut -d '.' -f 1)
typeset major=$(echo $ver | cut -d '.' -f 2)
typeset minor=$(echo $ver | cut -d '.' -f 3)

[[ -z "$version" ]] && version=0
[[ -z "$major" ]] && major=0
[[ -z "$minor" ]] && minor=0

echo $((version * 10000 + major * 100 + minor))
}

# Determine if this is a Linux test system
#
# Return 0 if platform Linux, 1 if otherwise

function is_linux
{
if [[ $(uname -o) == "GNU/Linux" ]]; then
return 0
else
return 1
fi
}

# Determine if this is a 32-bit system
#
# Return 0 if platform is 32-bit, 1 if otherwise

function is_32bit
{
if [[ $(getconf LONG_BIT) == "32" ]]; then
return 0
else
return 1
fi
}

# Determine if kmemleak is enabled
#
# Return 0 if kmemleak is enabled, 1 if otherwise

```

```

function is_kmemleak
{
if is_linux && [[ -e /sys/kernel/debug/kmemleak ]]; then
return 0
else
return 1
fi
}

# Determine whether a dataset is mounted
#
# $1 dataset name
# $2 filesystem type; optional - defaulted to zfs
#
# Return 0 if dataset is mounted; 1 if unmounted; 2 on error

function ismounted
{
typeset fstype=$2
[[ -z $fstype ]] && fstype=zfs
typeset out dir name ret

case $fstype in
zfs)
if [[ "$1" == "/"* ]] ; then
for out in $(zfs mount | awk '{print $2}'); do
[[ $1 == $out ]] && return 0
done
else
for out in $(zfs mount | awk '{print $1}'); do
[[ $1 == $out ]] && return 0
done
fi
;;
ufs|nfs)
out=$(df -F $fstype $1 2>/dev/null)
ret=$?
(($ret != 0)) && return $ret

dir=${out%%\(*}
dir=${dir%% *}
name=${out##*\(*}
name=${name%%\)*}
name=${name%% *}

[[ "$1" == "$dir" || "$1" == "$name" ]] && return 0
;;
ext*)

```



```

out=$(df -t $fstype $1 2>/dev/null)
return $?
;;
zvol)
if [[ -L "$ZVOL_DEVDIR/$1" ]]; then
link=$(readlink -f $ZVOL_DEVDIR/$1)
[[ -n "$link" ]] && \
mount | grep -q "^$link" && \
return 0
fi
;;
esac

return 1
}

# Return 0 if a dataset is mounted; 1 otherwise
#
# $1 dataset name
# $2 filesystem type; optional - defaulted to zfs

function mounted
{
ismounted $1 $2
(($? == 0)) && return 0
return 1
}

# Return 0 if a dataset is unmounted; 1 otherwise
#
# $1 dataset name
# $2 filesystem type; optional - defaulted to zfs

function unmounted
{
ismounted $1 $2
(($? == 1)) && return 0
return 1
}

# split line on ","
#
# $1 - line to split

function splitline
{
echo $1 | sed "s/,/ /g"
}

```

```

function default_setup
{
    default_setup_noexit "$@"

    log_pass
}

function default_setup_no_mountpoint
{
    default_setup_noexit "$1" "$2" "$3" "yes"

    log_pass
}

#
# Given a list of disks, setup storage pools and datasets.
#
function default_setup_noexit
{
    typeset disklist=$1
    typeset container=$2
    typeset volume=$3
    typeset no_mountpoint=$4
    log_note begin default_setup_noexit

    if is_global_zone; then
        if poolexists $TESTPOOL ; then
            destroy_pool $TESTPOOL
        fi
        [[ -d /$TESTPOOL ]] && rm -rf /$TESTPOOL
        log_must zpool create -f $TESTPOOL $disklist
    else
        reexport_pool
    fi

    rm -rf $TESTDIR || log_unresolved Could not remove $TESTDIR
    mkdir -p $TESTDIR || log_unresolved Could not create $TESTDIR

    log_must zfs create $TESTPOOL/$TESTFVS
    if [[ -z $no_mountpoint ]]; then
        log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTFVS
    fi

    if [[ -n $container ]]; then
        rm -rf $TESTDIR1 || \
            log_unresolved Could not remove $TESTDIR1
        mkdir -p $TESTDIR1 || \

```

```

log_unresolved Could not create $TESTDIR1

log_must zfs create $TESTPOOL/$TESTCTR
log_must zfs set canmount=off $TESTPOOL/$TESTCTR
log_must zfs create $TESTPOOL/$TESTCTR/$TESTFSS1
if [[ -z $no_mountpoint ]]; then
  log_must zfs set mountpoint=$TESTDIR1 \
    $TESTPOOL/$TESTCTR/$TESTFSS1
fi
fi

if [[ -n $volume ]]; then
  if is_global_zone ; then
    log_must zfs create -V $VOLSIZE $TESTPOOL/$TESTVOL
    block_device_wait
  else
    log_must zfs create $TESTPOOL/$TESTVOL
  fi
fi
}

#
# Given a list of disks, setup a storage pool, file system and
# a container.
#
function default_container_setup
{
  typeset disklist=$1

  default_setup "$disklist" "true"
}

#
# Given a list of disks, setup a storage pool,file system
# and a volume.
#
function default_volume_setup
{
  typeset disklist=$1

  default_setup "$disklist" "" "true"
}

#
# Given a list of disks, setup a storage pool,file system,
# a container and a volume.
#
function default_container_volume_setup

```

```

{
typeset disklist=$1

default_setup "$disklist" "true" "true"
}

#
# Create a snapshot on a filesystem or volume. Defaultly create a snapshot on
# filesystem
#
# $1 Existing filesystem or volume name. Default, $TESTPOOL/$TESTFS
# $2 snapshot name. Default, $TESTSNAP
#
function create_snapshot
{
typeset fs_vol=${1:-$TESTPOOL/$TESTFS}
typeset snap=${2:-$TESTSNAP}

[[ -z $fs_vol ]] && log_fail "Filesystem or volume's name is undefined."
[[ -z $snap ]] && log_fail "Snapshot's name is undefined."

if snapexists $fs_vol@$snap; then
log_fail "$fs_vol@$snap already exists."
fi
datasetexists $fs_vol || \
log_fail "$fs_vol must exist."

log_must zfs snapshot $fs_vol@$snap
}

#
# Create a clone from a snapshot, default clone name is $TESTCLONE.
#
# $1 Existing snapshot, $TESTPOOL/$TESTFS@$TESTSNAP is default.
# $2 Clone name, $TESTPOOL/$TESTCLONE is default.
#
function create_clone # snapshot clone
{
typeset snap=${1:-$TESTPOOL/$TESTFS@$TESTSNAP}
typeset clone=${2:-$TESTPOOL/$TESTCLONE}

[[ -z $snap ]] && \
log_fail "Snapshot name is undefined."
[[ -z $clone ]] && \
log_fail "Clone name is undefined."

log_must zfs clone $snap $clone
}

```

```

#
# Create a bookmark of the given snapshot.  Defaultly create a bookmark on
# filesystem.
#
# $1 Existing filesystem or volume name. Default, $TESTFS
# $2 Existing snapshot name. Default, $TESTSNAP
# $3 bookmark name. Default, $TESTBKMARK
#
function create_bookmark
{
typeset fs_vol=${1:-$TESTFS}
typeset snap=${2:-$TESTSNAP}
typeset bkmark=${3:-$TESTBKMARK}

[[ -z $fs_vol ]] && log_fail "Filesystem or volume's name is undefined."
[[ -z $snap ]] && log_fail "Snapshot's name is undefined."
[[ -z $bkmark ]] && log_fail "Bookmark's name is undefined."

if bkmarkexists $fs_vol#$bkmark; then
log_fail "$fs_vol#$bkmark already exists."
fi
datasetexists $fs_vol || \
log_fail "$fs_vol must exist."
snapexists $fs_vol@$snap || \
log_fail "$fs_vol@$snap must exist."

log_must zfs bookmark $fs_vol@$snap $fs_vol#$bkmark
}

#
# Create a temporary clone result of an interrupted resumable 'zfs receive'
# $1 Destination filesystem name. Must not exist, will be created as the result
# of this function along with its %recv temporary clone
# $2 Source filesystem name. Must not exist, will be created and destroyed
#
function create_recv_clone
{
typeset recvfs="$1"
typeset sendfs="${2:-$TESTPOOL/create_recv_clone}"
typeset snap="$sendfs@snap1"
typeset incr="$sendfs@snap2"
typeset mountpoint="$TESTDIR/create_recv_clone"
typeset sendfile="$TESTDIR/create_recv_clone.zsnap"

[[ -z $recvfs ]] && log_fail "Recv filesystem's name is undefined."

datasetexists $recvfs && log_fail "Recv filesystem must not exist."

```

```

datasetexists $sendfs && log_fail "Send filesystem must not exist."

log_must zfs create -o mountpoint="$mountpoint" $sendfs
log_must zfs snapshot $snap
log_must eval "zfs send $snap | zfs recv -u $recvfs"
log_must mkfile 1m "$mountpoint/data"
log_must zfs snapshot $incr
log_must eval "zfs send -i $snap $incr | dd bs=10K count=1 > $sendfile"
log_mustnot eval "zfs recv -su $recvfs < $sendfile"
destroy_dataset "$sendfs" "-r"
log_must rm -f "$sendfile"

if [[ $(get_prop 'inconsistent' "$recvfs/%recv") -ne 1 ]]; then
    log_fail "Error creating temporary $recvfs/%recv clone"
fi
}

function default_mirror_setup
{
    default_mirror_setup_noexit $1 $2 $3

    log_pass
}

#
# Given a pair of disks, set up a storage pool and dataset for the mirror
# @parameters: $1 the primary side of the mirror
# $2 the secondary side of the mirror
# @uses: ZPOOL ZFS TESTPOOL TESTFS
function default_mirror_setup_noexit
{
    readonly func="default_mirror_setup_noexit"
    typeset primary=$1
    typeset secondary=$2

    [[ -z $primary ]] && \
        log_fail "$func: No parameters passed"
    [[ -z $secondary ]] && \
        log_fail "$func: No secondary partition passed"
    [[ -d /$TESTPOOL ]] && rm -rf /$TESTPOOL
    log_must zpool create -f $TESTPOOL mirror $@
    log_must zfs create $TESTPOOL/$TESTFS
    log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTFS
}

#
# create a number of mirrors.
# We create a number($1) of 2 way mirrors using the pairs of disks named

```

```

# on the command line. These mirrors are *not* mounted
# @parameters: $1 the number of mirrors to create
# $... the devices to use to create the mirrors on
# @uses: ZPOOL ZFS TESTPOOL
function setup_mirrors
{
typeset -i nmirrors=$1

shift
while ((nmirrors > 0)); do
log__must test -n "$1" -a -n "$2"
[[ -d /$TESTPOOL$nmirrors ]] && rm -rf /$TESTPOOL$nmirrors
log__must zpool create -f $TESTPOOL$nmirrors mirror $1 $2
shift 2
((nmirrors = nmirrors - 1))
done
}

#
# create a number of raidz pools.
# We create a number($1) of 2 raidz pools using the pairs of disks named
# on the command line. These pools are *not* mounted
# @parameters: $1 the number of pools to create
# $... the devices to use to create the pools on
# @uses: ZPOOL ZFS TESTPOOL
function setup_raidzs
{
typeset -i nraidzs=$1

shift
while ((nraidzs > 0)); do
log__must test -n "$1" -a -n "$2"
[[ -d /$TESTPOOL$nraidzs ]] && rm -rf /$TESTPOOL$nraidzs
log__must zpool create -f $TESTPOOL$nraidzs raidz $1 $2
shift 2
((nraidzs = nraidzs - 1))
done
}

#
# Destroy the configured testpool mirrors.
# the mirrors are of the form ${TESTPOOL}{number}
# @uses: ZPOOL ZFS TESTPOOL
function destroy_mirrors
{
default_cleanup_noexit

log_pass

```

```

}

#
# Given a minimum of two disks, set up a storage pool and dataset for the raid-z
# $1 the list of disks
#
function default_raidz_setup
{
typeset disklist="$*"
disks=(${disklist[*]})

if [[ ${#disks[*]} -lt 2 ]]; then
log_fail "A raid-z requires a minimum of two disks."
fi

[[ -d /$TESTPOOL ]] && rm -rf /$TESTPOOL
log_must zpool create -f $TESTPOOL raidz $disklist
log_must zfs create $TESTPOOL/$TESTF5
log_must zfs set mountpoint=$TESTDIR $TESTPOOL/$TESTF5

log_pass
}

#
# Common function used to cleanup storage pools and datasets.
#
# Invoked at the start of the test suite to ensure the system
# is in a known state, and also at the end of each set of
# sub-tests to ensure errors from one set of tests doesn't
# impact the execution of the next set.

function default_cleanup
{
default_cleanup_noexit

log_pass
}

#
# Utility function used to list all available pool names.
#
# NOTE: $KEEP is a variable containing pool names, separated by a newline
# character, that must be excluded from the returned list.
#
function get_all_pools
{
zpool list -H -o name | grep -Fvx "$KEEP" | grep -v "$NO_POOLS"
}

```



```

function default_cleanup_noexit
{
typeset pool=""
#
# Destroying the pool will also destroy any
# filesystems it contains.
#
if is_global_zone; then
zfs unmount -a > /dev/null 2>&1
ALL_POOLS=$(get_all_pools)
# Here, we loop through the pools we're allowed to
# destroy, only destroying them if it's safe to do
# so.
while [ ! -z ${ALL_POOLS} ]
do
for pool in ${ALL_POOLS}
do
if safe_to_destroy_pool $pool ;
then
destroy_pool $pool
fi
ALL_POOLS=$(get_all_pools)
done
done

zfs mount -a
else
typeset fs=""
for fs in $(zfs list -H -o name \
| grep "^$ZONE_POOL/$ZONE_CTR[01234]/"); do
destroy_dataset "$fs" "-Rf"
done

# Need cleanup here to avoid garbage dir left.
for fs in $(zfs list -H -o name); do
[[ $fs == /$ZONE_POOL ]] && continue
[[ -d $fs ]] && log_must rm -rf $fs/*
done

#
# Reset the $ZONE_POOL/$ZONE_CTR[01234] file systems property to
# the default value
#
for fs in $(zfs list -H -o name); do
if [[ $fs == $ZONE_POOL/$ZONE_CTR[01234] ]]; then
log_must zfs set reservation=none $fs
log_must zfs set recordsize=128K $fs

```

```

log_must zfs set mountpoint=/$fs $fs
typeset enc=""
enc=$(get_prop encryption $fs)
if [[ $? -ne 0 ]] || [[ -z "$enc" ]] || \
  [[ "$enc" == "off" ]]; then
  log_must zfs set checksum=on $fs
fi
log_must zfs set compression=off $fs
log_must zfs set atime=on $fs
log_must zfs set devices=off $fs
log_must zfs set exec=on $fs
log_must zfs set setuid=on $fs
log_must zfs set readonly=off $fs
log_must zfs set snapdir=hidden $fs
log_must zfs set aclmode=groupmask $fs
log_must zfs set aclinherit=secure $fs
fi
done
fi

[[ -d $TESTDIR ]] && \
log_must rm -rf $TESTDIR

disk1=${DISKS%% *}
if is_mpath_device $disk1; then
  delete_partitions
fi

rm -f $TEST_BASE_DIR/{err,out}
}

#
# Common function used to cleanup storage pools, file systems
# and containers.
#
function default_container_cleanup
{
  if ! is_global_zone; then
    reexport_pool
  fi
}

ismounted $TESTPOOL/$TESTCTR/$TESTFSS1
[[ $? -eq 0 ]] && \
  log_must zfs unmount $TESTPOOL/$TESTCTR/$TESTFSS1

destroy_dataset "$TESTPOOL/$TESTCTR/$TESTFSS1" "-R"
destroy_dataset "$TESTPOOL/$TESTCTR" "-Rf"

```

```

[[ -e $TESTDIR1 ]] && \
    log_must rm -rf $TESTDIR1 > /dev/null 2>&1

default_cleanup
}

#
# Common function used to cleanup snapshot of file system or volume. Default to
# delete the file system's snapshot
#
# $1 snapshot name
#
function destroy_snapshot
{
typeset snap=${1:-$TESTPOOL/$TESTFS@$TESTSNAP}

if ! snapexists $snap; then
    log_fail "'$snap' does not exist."
fi

#
# For the sake of the value which come from 'get_prop' is not equal
# to the really mountpoint when the snapshot is unmounted. So, firstly
# check and make sure this snapshot's been mounted in current system.
#
typeset mtpt=""
if ismounted $snap; then
    mtpt=$(get_prop mountpoint $snap)
    (($? != 0)) && \
        log_fail "get_prop mountpoint $snap failed."
fi

destroy_dataset "$snap"
[[ $mtpt != "" && -d $mtpt ]] && \
    log_must rm -rf $mtpt
}

#
# Common function used to cleanup clone.
#
# $1 clone name
#
function destroy_clone
{
typeset clone=${1:-$TESTPOOL/$TESTCLONE}

if ! datasetexists $clone; then

```

```

log_fail "'$clone' does not existed."
fi

# With the same reason in destroy_snapshot
typeset mtpt=""
if ismounted $clone; then
  mtpt=$(get_prop mountpoint $clone)
  (($? != 0)) && \
  log_fail "get_prop mountpoint $clone failed."
fi

destroy_dataset "$clone"
[[ $mtpt != "" && -d $mtpt ]] && \
log_must rm -rf $mtpt
}

#
# Common function used to cleanup bookmark of file system or volume. Default
# to delete the file system's bookmark.
#
# $1 bookmark name
#
function destroy_bookmark
{
  typeset bkmark=${1:-$TESTPOOL/$TESTFS#$TESTBKMARK}

  if ! bkmarkexists $bkmark; then
    log_fail "'$bkmarkp' does not existed."
  fi

  destroy_dataset "$bkmark"
}

# Return 0 if a snapshot exists; $? otherwise
#
# $1 - snapshot name

function snapexists
{
  zfs list -H -t snapshot "$1" > /dev/null 2>&1
  return $?
}

#
# Return 0 if a bookmark exists; $? otherwise
#
# $1 - bookmark name
#

```

```

function bkmarkexists
{
zfs list -H -t bookmark "$1" > /dev/null 2>&1
return $?
}

#
# Set a property to a certain value on a dataset.
# Sets a property of the dataset to the value as passed in.
# @param:
# $1 dataset who's property is being set
# $2 property to set
# $3 value to set property to
# @return:
# 0 if the property could be set.
# non-zero otherwise.
# @use: ZFS
#
function dataset_setprop
{
typeset fn=dataset_setprop

if (($# < 3)); then
log_note "$fn: Insufficient parameters (need 3, had $#)"
return 1
fi
typeset output=
output=$(zfs set $2=$3 $1 2>&1)
typeset rv=$?
if ((rv != 0)); then
log_note "Setting property on $1 failed."
log_note "property $2=$3"
log_note "Return Code: $rv"
log_note "Output: $output"
return $rv
fi
return 0
}

#
# Assign suite defined dataset properties.
# This function is used to apply the suite's defined default set of
# properties to a dataset.
# @parameters: $1 dataset to use
# @uses: ZFS COMPRESSION_PROP CHECKSUM_PROP
# @returns:
# 0 if the dataset has been altered.
# 1 if no pool name was passed in.

```

```

# 2 if the dataset could not be found.
# 3 if the dataset could not have it's properties set.
#
function dataset_set_defaultproperties
{
typeset dataset="$1"

[[ -z $dataset ]] && return 1

typeset confset=
typeset -i found=0
for confset in $(zfs list); do
if [[ $dataset = $confset ]]; then
found=1
break
fi
done
[[ $found -eq 0 ]] && return 2
if [[ -n $COMPRESSION_PROP ]]; then
dataset_setprop $dataset compression $COMPRESSION_PROP || \
return 3
log_note "Compression set to '$COMPRESSION_PROP' on $dataset"
fi
if [[ -n $CHECKSUM_PROP ]]; then
dataset_setprop $dataset checksum $CHECKSUM_PROP || \
return 3
log_note "Checksum set to '$CHECKSUM_PROP' on $dataset"
fi
return 0
}

#
# Check a numeric assertion
# @parameter: $@ the assertion to check
# @output: big loud notice if assertion failed
# @use: log_fail
#
function assert
{
(($@)) || log_fail "$@"
}

#
# Function to format partition size of a disk
# Given a disk cxtxdx reduces all partitions
# to 0 size
#
function zero_partitions #<whole_disk_name>

```

```

{
typeset diskname=$1
typeset i

if is_linux; then
DSK=$DEV_DSKDIR/$diskname
DSK=$(echo $DSK | sed -e "s///|g")
log_must parted $DSK -s -- mklabel gpt
blockdev --rereadpt $DSK 2>/dev/null
block_device_wait
else
for i in 0 1 3 4 5 6 7
do
log_must set_partition $i "" 0mb $diskname
done
fi

return 0
}

#
# Given a slice, size and disk, this function
# formats the slice to the specified size.
# Size should be specified with units as per
# the `format` command requirements eg. 100mb 3gb
#
# NOTE: This entire interface is problematic for the Linux parted utility
# which requires the end of the partition to be specified. It would be
# best to retire this interface and replace it with something more flexible.
# At the moment a best effort is made.
#
function set_partition #<slice_num> <slice_start> <size_plus_units> <whole_disk_name>
{
typeset -i slicenum=$1
typeset start=$2
typeset size=$3
typeset disk=$4

if is_linux; then
if [[ -z $size || -z $disk ]]; then
log_fail "The size or disk name is unspecified."
fi
typeset size_mb=${size%%[mMgG]}

size_mb=${size_mb%%[bB]}
if [[ ${size:1:1} == 'g' ]]; then
((size_mb = size_mb * 1024))
fi

```

```

# Create GPT partition table when setting slice 0 or
# when the device doesn't already contain a GPT label.
parted $DEV_DSKDIR/$disk -s -- print 1 >/dev/null
typeset ret_val=$?
if [[ $slicenum -eq 0 || $ret_val -ne 0 ]]; then
    parted $DEV_DSKDIR/$disk -s -- mklabel gpt
    if [[ $? -ne 0 ]]; then
        log_note "Failed to create GPT partition table on $disk"
        return 1
    fi
fi

# When no start is given align on the first cylinder.
if [[ -z "$start" ]]; then
    start=1
fi

# Determine the cylinder size for the device and using
# that calculate the end offset in cylinders.
typeset -i cly_size_kb=0
cly_size_kb=$(parted -m $DEV_DSKDIR/$disk -s -- \
    unit cyl print | head -3 | tail -1 | \
    awk -F ':k.' '{print $4}')
((end = (size_mb * 1024 / cly_size_kb) + start))

parted $DEV_DSKDIR/$disk -s -- \
    mkpart part$slicenum ${start}cyl ${end}cyl
if [[ $? -ne 0 ]]; then
    log_note "Failed to create partition $slicenum on $disk"
    return 1
fi

blockdev --rereadpt $DEV_DSKDIR/$disk 2>/dev/null
block_device_wait
else
    if [[ -z $slicenum || -z $size || -z $disk ]]; then
        log_fail "The slice, size or disk name is unspecified."
    fi

    typeset format_file=/var/tmp/format_in.$$

    echo "partition" >$format_file
    echo "$slicenum" >> $format_file
    echo "" >> $format_file
    echo "" >> $format_file
    echo "$start" >> $format_file
    echo "$size" >> $format_file

```



```

echo "label" >> $format_file
echo "" >> $format_file
echo "q" >> $format_file
echo "q" >> $format_file

format -e -s -d $disk -f $format_file
fi

typeset ret_val=$?
rm -f $format_file
if [[ $ret_val -ne 0 ]]; then
    log_note "Unable to format $disk slice $slicenum to $size"
    return 1
fi
return 0
}

#
# Delete all partitions on all disks - this is specifically for the use of multipath
# devices which currently can only be used in the test suite as raw/un-partitioned
# devices (ie a zpool cannot be created on a whole mpath device that has partitions)
#
function delete_partitions
{
    typeset -i j=1

    if [[ -z $DISK_ARRAY_NUM ]]; then
        DISK_ARRAY_NUM=$(echo ${DISKS} | nawk '{print NF}')
    fi
    if [[ -z $DISKSARRAY ]]; then
        DISKSARRAY=$DISKS
    fi

    if is_linux; then
        if (( $DISK_ARRAY_NUM == 1 )); then
            while ((j < MAX_PARTITIONS)); do
                parted $DEV_DSKDIR/$DISK -s rm $j \
                    > /dev/null 2>&1
                if (( $? == 1 )); then
                    lsblk | egrep ${DISK}${SLICE_PREFIX}${j} > /dev/null
                    if (( $? == 1 )); then
                        log_note "Partitions for $DISK should be deleted"
                    else
                        log_fail "Partition for ${DISK}${SLICE_PREFIX}${j} not deleted"
                    fi
                fi
                return 0
            else
                lsblk | egrep ${DISK}${SLICE_PREFIX}${j} > /dev/null

```

```

    if (( $? == 0 )); then
        log_fail "Partition for ${DISK}${SLICE_PREFIX}${j} not deleted"
    fi
fi
((j = j+1))
done
else
for disk in `echo $DISKSARRAY`; do
while ((j < MAX_PARTITIONS)); do
parted $DEV_DSKDIR/$disk -s rm $j > /dev/null 2>&1
if (( $? == 1 )); then
lsblk | egrep ${disk}${SLICE_PREFIX}${j} > /dev/null
if (( $? == 1 )); then
log_note "Partitions for $disk should be deleted"
else
log_fail "Partition for ${disk}${SLICE_PREFIX}${j} not deleted"
fi
j=7
else
lsblk | egrep ${disk}${SLICE_PREFIX}${j} > /dev/null
if (( $? == 0 )); then
log_fail "Partition for ${disk}${SLICE_PREFIX}${j} not deleted"
fi
fi
((j = j+1))
done
j=1
done
fi
fi
return 0
}

#
# Get the end cyl of the given slice
#
function get_endslice #<disk> <slice>
{
typeset disk=$1
typeset slice=$2
if [[ -z $disk || -z $slice ]]; then
log_fail "The disk name or slice number is unspecified."
fi

if is_linux; then
endcyl=$(parted -s $DEV_DSKDIR/$disk -- unit cyl print | \
grep "part${slice}" | \
awk '{print $3}' | \

```

```

    sed 's,cyl,')
    ((endcyl = (endcyl + 1)))
else
    disk=${disk#/dev/dsk/}
    disk=${disk#/dev/rdisk/}
    disk=${disk%s*}

    typeset -i ratio=0
    ratio=$(prtvtoc /dev/rdisk/${disk}s2 | \
        grep "sectors/cylinder" | \
        awk '{print $2}')

    if ((ratio == 0)); then
        return
    fi

    typeset -i endcyl=$(prtvtoc -h /dev/rdisk/${disk}s2 |
        nawk -v token="$slice" '{if ($1==token) print $6}')

    ((endcyl = (endcyl + 1) / ratio))
fi

echo $endcyl
}

#
# Given a size,disk and total slice number, this function formats the
# disk slices from 0 to the total slice number with the same specified
# size.
#
function partition_disk #<slice_size> <whole_disk_name> <total_slices>
{
    typeset -i i=0
    typeset slice_size=$1
    typeset disk_name=$2
    typeset total_slices=$3
    typeset cyl

    zero_partitions $disk_name
    while ((i < $total_slices)); do
        if ! is_linux; then
            if ((i == 2)); then
                ((i = i + 1))
                continue
            fi
        fi
        log_must set_partition $i "$cyl" $slice_size $disk_name
    done
}

```

```

    cyl=$(get_endslice $disk_name $i)
    ((i = i+1))
done
}

#
# This function continues to write to a filenum number of files into dirnum
# number of directories until either file_write returns an error or the
# maximum number of files per directory have been written.
#
# Usage:
# fill_fs [destdir] [dirnum] [filenum] [bytes] [num_writes] [data]
#
# Return value: 0 on success
# non 0 on error
#
# Where :
# destdir:  is the directory where everything is to be created under
# dirnum:   the maximum number of subdirectories to use, -1 no limit
# filenum:  the maximum number of files per subdirectory
# bytes:    number of bytes to write
# num_writes:  numer of types to write out bytes
# data:     the data that will be written
#
# E.g.
# file_fs /testdir 20 25 1024 256 0
#
# Note: bytes * num_writes equals the size of the testfile
#
function fill_fs # destdir dirnum filenum bytes num_writes data
{
    typeset destdir=${1:-$TESTDIR}
    typeset -i dirnum=${2:-50}
    typeset -i filenum=${3:-50}
    typeset -i bytes=${4:-8192}
    typeset -i num_writes=${5:-10240}
    typeset data=${6:-0}

    typeset -i odirnum=1
    typeset -i idirnum=0
    typeset -i fn=0
    typeset -i retval=0

    mkdir -p $destdir/$idirnum
    while (($odirnum > 0)); do
        if (((dirnum >= 0 && idirnum >= dirnum)); then
            odirnum=0
            break

```

```

fi
file_write -o create -f $destdir/$idirnum/$TESTFILE.$fn \
  -b $bytes -c $num_writes -d $data
retval=$?
if (($retval != 0)); then
  odirnum=0
  break
fi
if (($fn >= $filenum)); then
  fn=0
  ((idirnum = idirnum + 1))
  mkdir -p $destdir/$idirnum
else
  ((fn = fn + 1))
fi
done
return $retval
}

#
# Simple function to get the specified property. If unable to
# get the property then exits.
#
# Note property is in 'parsable' format (-p)
#
function get_prop # property dataset
{
  typeset prop_val
  typeset prop=$1
  typeset dataset=$2

  prop_val=$(zfs get -pH -o value $prop $dataset 2>/dev/null)
  if [[ $? -ne 0 ]]; then
    log_note "Unable to get $prop property for dataset " \
      "$dataset"
    return 1
  fi

  echo "$prop_val"
  return 0
}

#
# Simple function to get the specified property of pool. If unable to
# get the property then exits.
#
# Note property is in 'parsable' format (-p)
#

```

```

function get_pool_prop # property pool
{
typeset prop_val
typeset prop=$1
typeset pool=$2

if poolexists $pool ; then
prop_val=$(zpool get -pH $prop $pool 2>/dev/null | tail -1 | \
awk '{print $3}')
if [[ $? -ne 0 ]]; then
log_note "Unable to get $prop property for pool " \
"$pool"
return 1
fi
else
log_note "Pool $pool not exists."
return 1
fi

echo "$prop_val"
return 0
}

# Return 0 if a pool exists; $? otherwise
#
# $1 - pool name

function poolexists
{
typeset pool=$1

if [[ -z $pool ]]; then
log_note "No pool name given."
return 1
fi

zpool get name "$pool" > /dev/null 2>&1
return $?
}

# Return 0 if all the specified datasets exist; $? otherwise
#
# $1-n dataset name
function datasetexists
{
if (($# == 0)); then
log_note "No dataset name given."
return 1

```

```

fi

while (($# > 0)); do
  zfs get name $1 > /dev/null 2>&1 || \
  return $?
  shift
done

return 0
}

# return 0 if none of the specified datasets exists, otherwise return 1.
#
# $1-n dataset name
function datasetnonexists
{
  if (($# == 0)); then
    log_note "No dataset name given."
    return 1
  fi
}

while (($# > 0)); do
  zfs list -H -t filesystem,snapshot,volume $1 > /dev/null 2>&1 \
  && return 1
  shift
done

return 0
}

function is_shared_impl
{
  typeset fs=$1
  typeset mtpt

  if is_linux; then
    for mtpt in `share | awk '{print $1}'` ; do
      if [[ $mtpt == $fs ]] ; then
        return 0
      fi
    done
    return 1
  fi

  for mtpt in `share | awk '{print $2}'` ; do
    if [[ $mtpt == $fs ]] ; then
      return 0
    fi
  done
}

```

```

done

typeset stat=$(svcs -H -o STA nfs/server:default)
if [[ $stat != "ON" ]]; then
  log_note "Current nfs/server status: $stat"
fi

return 1
}

#
# Given a mountpoint, or a dataset name, determine if it is shared via NFS.
#
# Returns 0 if shared, 1 otherwise.
#
function is_shared
{
  typeset fs=$1
  typeset mtpt

  if [[ $fs != "/"* ]] ; then
    if datasetnonexists "$fs" ; then
      return 1
    else
      mtpt=$(get_prop mountpoint "$fs")
      case $mtpt in
        none|legacy|-) return 1
          ;;
        *) fs=$mtpt
          ;;
      esac
    fi
  fi

  is_shared_impl "$fs"
}

#
# Given a dataset name determine if it is shared via SMB.
#
# Returns 0 if shared, 1 otherwise.
#
function is_shared_smb
{
  typeset fs=$1
  typeset mtpt

  if datasetnonexists "$fs" ; then

```



```

return 1
else
fs=$(echo $fs | sed 's@/_@_@g')
fi

if is_linux; then
for mtp in `net usershare list | awk '{print $1}'` ; do
if [[ $mtp == $fs ]] ; then
return 0
fi
done
return 1
else
log_unsupported "Currently unsupported by the test framework"
return 1
fi
}

```

```

#
# Given a mountpoint, determine if it is not shared via NFS.
#
# Returns 0 if not shared, 1 otherwise.
#

```

```
function not_shared
```

```
{
typeset fs=$1
```

```
is_shared $fs
if (($? == 0)); then
return 1
fi
```

```
return 0
}
```

```

#
# Given a dataset determine if it is not shared via SMB.
#
# Returns 0 if not shared, 1 otherwise.
#

```

```
function not_shared_smb
```

```
{
typeset fs=$1
```

```
is_shared_smb $fs
if (($? == 0)); then
return 1
fi
```

```

return 0
}

#
# Helper function to unshare a mountpoint.
#
function unshare_fs #fs
{
typeset fs=$1

is_shared $fs || is_shared_smb $fs
if (($? == 0)); then
log_must zfs unshare $fs
fi

return 0
}

#
# Helper function to share a NFS mountpoint.
#
function share_nfs #fs
{
typeset fs=$1

if is_linux; then
is_shared $fs
if (($? != 0)); then
log_must share "*: $fs"
fi
else
is_shared $fs
if (($? != 0)); then
log_must share -F nfs $fs
fi
fi

return 0
}

#
# Helper function to unshare a NFS mountpoint.
#
function unshare_nfs #fs
{
typeset fs=$1

```

```

if is_linux; then
  is_shared $fs
  if (($? == 0)); then
    log_must unshare -u "*: $fs"
  fi
else
  is_shared $fs
  if (($? == 0)); then
    log_must unshare -F nfs $fs
  fi
fi

return 0
}

#
# Helper function to show NFS shares.
#
function showshares_nfs
{
  if is_linux; then
    share -v
  else
    share -F nfs
  fi

  return 0
}

#
# Helper function to show SMB shares.
#
function showshares_smb
{
  if is_linux; then
    net usershare list
  else
    share -F smb
  fi

  return 0
}

#
# Check NFS server status and trigger it online.
#
function setup_nfs_server
{

```

```

# Cannot share directory in non-global zone.
#
if ! is_global_zone; then
log_note "Cannot trigger NFS server by sharing in LZ."
return
fi

if is_linux; then
#
# Re-synchronize /var/lib/nfs/etab with /etc/exports and
# /etc/exports.d./* to provide a clean test environment.
#
log_must share -r

log_note "NFS server must be started prior to running ZTS."
return
fi

typeset nfs_fmri="svc:/network/nfs/server:default"
if [[ $(svcs -Ho STA $nfs_fmri) != "ON" ]]; then
#
# Only really sharing operation can enable NFS server
# to online permanently.
#
typeset dummy=/tmp/dummy

if [[ -d $dummy ]]; then
log_must rm -rf $dummy
fi

log_must mkdir $dummy
log_must share $dummy

#
# Waiting for fmri's status to be the final status.
# Otherwise, in transition, an asterisk (*) is appended for
# instances, unshare will reverse status to 'DIS' again.
#
# Waiting for 1's at least.
#
log_must sleep 1
timeout=10
while [[ timeout -ne 0 && $(svcs -Ho STA $nfs_fmri) == '*:*' ]]
do
log_must sleep 1

((timeout -= 1))
done

```

```

log_must unshare $dummy
log_must rm -rf $dummy
fi

log_note "Current NFS status: '$(svcs -Ho STA,FMRI $nfs_fmri)'"
}

#
# To verify whether calling process is in global zone
#
# Return 0 if in global zone, 1 in non-global zone
#
function is_global_zone
{
if is_linux; then
return 0
else
typeset cur_zone=$(zonename 2>/dev/null)
if [[ $cur_zone != "global" ]]; then
return 1
fi
return 0
fi
}

#
# Verify whether test is permitted to run from
# global zone, local zone, or both
#
# $1 zone limit, could be "global", "local", or "both"(no limit)
#
# Return 0 if permitted, otherwise exit with log_unsupported
#
function verify_runnable # zone limit
{
typeset limit=$1

[[ -z $limit ]] && return 0

if is_global_zone ; then
case $limit in
global|both)
;;
local) log_unsupported "Test is unable to run from "\
"global zone."
;;
*) log_note "Warning: unknown limit $limit - " \

```

```

    "use both."
    ;;
esac
else
case $limit in
local|both)
    ;;
global) log_unsupported "Test is unable to run from "\
    "local zone."
    ;;
*) log_note "Warning: unknown limit $limit - " \
    "use both."
    ;;
esac

reexport_pool
fi

return 0
}

# Return 0 if create successfully or the pool exists; $? otherwise
# Note: In local zones, this function should return 0 silently.
#
# $1 - pool name
# $2-n - [keyword] devs_list

function create_pool #pool devs_list
{
typeset pool=${1%%/*}

shift

if [[ -z $pool ]]; then
log_note "Missing pool name."
return 1
fi

if poolexists $pool ; then
destroy_pool $pool
fi

if is_global_zone ; then
[[ -d /$pool ]] && rm -rf /$pool
log_must zpool create -f $pool $@
fi

return 0

```

```

}

# Return 0 if destroy successfully or the pool exists; $? otherwise
# Note: In local zones, this function should return 0 silently.
#
# $1 - pool name
# Destroy pool with the given parameters.

function destroy_pool #pool
{
typeset pool=${1%%/*}
typeset mtpt

if [[ -z $pool ]]; then
log_note "No pool name given."
return 1
fi

if is_global_zone ; then
if poolexists "$pool" ; then
mtpt=$(get_prop mountpoint "$pool")

# At times, syseventd/udev activity can cause attempts
# to destroy a pool to fail with EBUSY. We retry a few
# times allowing failures before requiring the destroy
# to succeed.
log_must_busy zpool destroy -f $pool

[[ -d $mtpt ]] && \
log_must rm -rf $mtpt
else
log_note "Pool does not exist. ($pool)"
return 1
fi
fi

return 0
}

# Return 0 if created successfully; $? otherwise
#
# $1 - dataset name
# $2-n - dataset options

function create_dataset #dataset dataset_options
{
typeset dataset=$1

```

```

shift

if [[ -z $dataset ]]; then
    log_note "Missing dataset name."
    return 1
fi

if datasetexists $dataset ; then
    destroy_dataset $dataset
fi

log_must zfs create @$ $dataset

return 0
}

# Return 0 if destroy successfully or the dataset exists; $? otherwise
# Note: In local zones, this function should return 0 silently.
#
# $1 - dataset name
# $2 - custom arguments for zfs destroy
# Destroy dataset with the given parameters.

function destroy_dataset #dataset #args
{
    typeset dataset=$1
    typeset mtpt
    typeset args=${2:-""}

    if [[ -z $dataset ]]; then
        log_note "No dataset name given."
        return 1
    fi

    if is_global_zone ; then
        if datasetexists "$dataset" ; then
            mtpt=$(get_prop mountpoint "$dataset")
            log_must_busy zfs destroy $args $dataset

            [[ -d $mtpt ]] && \
                log_must rm -rf $mtpt
            else
                log_note "Dataset does not exist. ($dataset)"
                return 1
            fi
        fi
    fi

    return 0
}

```



```

}

#
# Firstly, create a pool with 5 datasets. Then, create a single zone and
# export the 5 datasets to it. In addition, we also add a ZFS filesystem
# and a zvol device to the zone.
#
# $1 zone name
# $2 zone root directory prefix
# $3 zone ip
#
function zfs_zones_setup #zone_name zone_root zone_ip
{
typeset zone_name=${1:-$(hostname)-z}
typeset zone_root=${2:-"/zone_root"}
typeset zone_ip=${3:-"10.1.1.10"}
typeset prefix_ctr=$ZONE_CTR
typeset pool_name=$ZONE_POOL
typeset -i cntctr=5
typeset -i i=0

# Create pool and 5 container within it
#
[[ -d /$pool_name ]] && rm -rf /$pool_name
log_must zpool create -f $pool_name $DISKS
while ((i < cntctr)); do
log_must zfs create $pool_name/$prefix_ctr$i
((i += 1))
done

# create a zvol
log_must zfs create -V 1g $pool_name/zone_zvol
block_device_wait

#
# If current system support slog, add slog device for pool
#
if verify_slog_support ; then
typeset sdevs="$TEST_BASE_DIR/sdev1 $TEST_BASE_DIR/sdev2"
log_must mkfile $MINVDEVSIZE $sdevs
log_must zpool add $pool_name log mirror $sdevs
fi

# this isn't supported just yet.
# Create a filesystem. In order to add this to
# the zone, it must have it's mountpoint set to 'legacy'
# log_must zfs create $pool_name/zfs_filesystem
# log_must zfs set mountpoint=legacy $pool_name/zfs_filesystem

```

```

[[ -d $zone_root ]] && \
log_must rm -rf $zone_root/$zone_name
[[ ! -d $zone_root ]] && \
log_must mkdir -p -m 0700 $zone_root/$zone_name

# Create zone configure file and configure the zone
#
typeset zone_conf=/tmp/zone_conf.$$
echo "create" > $zone_conf
echo "set zonepath=$zone_root/$zone_name" >> $zone_conf
echo "set autoboot=true" >> $zone_conf
i=0
while ((i < cntctr)); do
echo "add dataset" >> $zone_conf
echo "set name=$pool_name/$prefix_ctr$i" >> \
$zone_conf
echo "end" >> $zone_conf
((i += 1))
done

# add our zvol to the zone
echo "add device" >> $zone_conf
echo "set match=/dev/zvol/dsk/$pool_name/zone_zvol" >> $zone_conf
echo "end" >> $zone_conf

# add a corresponding zvol rdisk to the zone
echo "add device" >> $zone_conf
echo "set match=$ZVOL_RDEVDIR/$pool_name/zone_zvol" >> $zone_conf
echo "end" >> $zone_conf

# once it's supported, we'll add our filesystem to the zone
# echo "add fs" >> $zone_conf
# echo "set type=zfs" >> $zone_conf
# echo "set special=$pool_name/zfs_filesystem" >> $zone_conf
# echo "set dir=/export/zfs_filesystem" >> $zone_conf
# echo "end" >> $zone_conf

echo "verify" >> $zone_conf
echo "commit" >> $zone_conf
log_must zonecfg -z $zone_name -f $zone_conf
log_must rm -f $zone_conf

# Install the zone
zoneadm -z $zone_name install
if (($? == 0)); then
log_note "SUCCESS: zoneadm -z $zone_name install"
else

```

```

log_fail "FAIL: zoneadm -z $zone_name install"
fi

# Install sysidcfg file
#
typeset sysidcfg=$zone_root/$zone_name/root/etc/sysidcfg
echo "system_locale=C" > $sysidcfg
echo "terminal=dtterm" >> $sysidcfg
echo "network_interface=primary {" >> $sysidcfg
echo "hostname=$zone_name" >> $sysidcfg
echo "}" >> $sysidcfg
echo "name_service=NONE" >> $sysidcfg
echo "root_password=mo791xfZ/SFiw" >> $sysidcfg
echo "security_policy=NONE" >> $sysidcfg
echo "timezone=US/Eastern" >> $sysidcfg

# Boot this zone
log_must zoneadm -z $zone_name boot
}

#
# Reexport TESTPOOL & TESTPOOL(1-4)
#
function reexport_pool
{
typeset -i cntctr=5
typeset -i i=0

while ((i < cntctr)); do
if ((i == 0)); then
TESTPOOL=$ZONE_POOL/$ZONE_CTR$i
if ! ismounted $TESTPOOL; then
log_must zfs mount $TESTPOOL
fi
else
eval TESTPOOL$i=$ZONE_POOL/$ZONE_CTR$i
if eval ! ismounted \$TESTPOOL$i; then
log_must eval zfs mount \$TESTPOOL$i
fi
fi
((i += 1))
done
}

#
# Verify a given disk or pool state
#
# Return 0 is pool/disk matches expected state, 1 otherwise

```

```

#
function check_state # pool disk state{ online,offline,degraded}
{
typeset pool=$1
typeset disk=${2#$DEV_DSKDIR/}
typeset state=$3

[[ -z $pool ]] || [[ -z $state ]] \
    && log_fail "Arguments invalid or missing"

if [[ -z $disk ]]; then
#check pool state only
zpool get -H -o value health $pool \
    | grep -i "$state" > /dev/null 2>&1
else
zpool status -v $pool | grep "$disk" \
    | grep -i "$state" > /dev/null 2>&1
fi

return $?
}

#
# Get the mountpoint of snapshot
# For the snapshot use <mp_filesystem>/.zfs/snapshot/<snap>
# as its mountpoint
#
function snapshot_mountpoint
{
typeset dataset=${1:-$TESTPOOL/$TESTFS@$TESTSNAP}

if [[ $dataset != *@* ]]; then
log_fail "Error name of snapshot '$dataset'."
fi

typeset fs=${dataset%@*}
typeset snap=${dataset##*@}

if [[ -z $fs || -z $snap ]]; then
log_fail "Error name of snapshot '$dataset'."
fi

echo $(get_prop mountpoint $fs)/.zfs/snapshot/$snap
}

#
# Given a device and 'ashift' value verify it's correctly set on every label
#

```

```

function verify_ashift # device ashift
{
typeset device="$1"
typeset ashift="$2"

zdb -e -lll $device | awk -v ashift=$ashift '/ashift: / {
    if (ashift != $2)
        exit 1;
    else
        count++;
    } END {
    if (count != 4)
        exit 1;
    else
        exit 0;
    }'

return $?
}

#
# Given a pool and file system, this function will verify the file system
# using the zdb internal tool. Note that the pool is exported and imported
# to ensure it has consistent state.
#
function verify_filesys # pool filesystem dir
{
typeset pool="$1"
typeset filesystem="$2"
typeset zdbout="/tmp/zdbout.$$"

shift
shift
typeset dirs=$@
typeset search_path=""

log_note "Calling zdb to verify filesystem '$filesystem'"
zfs unmount -a > /dev/null 2>&1
log_must zpool export $pool

if [[ -n $dirs ]] ; then
    for dir in $dirs ; do
        search_path="$search_path -d $dir"
    done
fi

log_must zpool import $search_path $pool

```

```

zdb -cudi $filesys > $zdbout 2>&1
if [[ $? != 0 ]]; then
    log_note "Output: zdb -cudi $filesys"
    cat $zdbout
    log_fail "zdb detected errors with: '$filesys'"
fi

log_must zfs mount -a
log_must rm -rf $zdbout
}

#
# Given a pool issue a scrub and verify that no checksum errors are reported.
#
function verify_pool
{
    typeset pool=${1:-$TESTPOOL}

    log_must zpool scrub $pool
    log_must wait_scrubbed $pool

    cksum=$(zpool status $pool | awk 'L{print $NF;L=0} /CKSUM$/{L=1}')
    if [[ $cksum != 0 ]]; then
        log_must zpool status -v
        log_fail "Unexpected CKSUM errors found on $pool ($cksum)"
    fi
}

#
# Given a pool, and this function list all disks in the pool
#
function get_disklist # pool
{
    typeset disklist=""

    disklist=$(zpool iostat -v $1 | nawk '(NR >4) {print $1}' | \
        grep -v "\-|-|-|-|" | \
        egrep -v -e "^(mirror|raidz[1-3]|spare|log|cache|special|dedup)$")

    echo $disklist
}

#
# Given a pool, and this function list all disks in the pool with their full
# path (like "/dev/sda" instead of "sda").
#
function get_disklist_fullpath # pool
{

```

```

args="-P $1"
get_disklist $args
}

# /**
# This function kills a given list of processes after a time period. We use
# this in the stress tests instead of STF_TIMEOUT so that we can have processes
# run for a fixed amount of time, yet still pass. Tests that hit STF_TIMEOUT
# would be listed as FAIL, which we don't want : we're happy with stress tests
# running for a certain amount of time, then finishing.
#
# @param $1 the time in seconds after which we should terminate these processes
# @param $2..$n the processes we wish to terminate.
# */
function stress_timeout
{
typeset -i TIMEOUT=$1
shift
typeset cpids="$@"

log_note "Waiting for child processes($cpids). " \
"It could last dozens of minutes, please be patient ..."
log_must sleep $TIMEOUT

log_note "Killing child processes after ${TIMEOUT} stress timeout."
typeset pid
for pid in $cpids; do
ps -p $pid > /dev/null 2>&1
if (($? == 0)); then
log_must kill -USR1 $pid
fi
done
}

#
# Verify a given hotspare disk is inuse or avail
#
# Return 0 is pool/disk matches expected state, 1 otherwise
#
function check_hotspare_state # pool disk state{inuse,avail}
{
typeset pool=$1
typeset disk=${2#$DEV_DSKDIR/}
typeset state=$3

cur_state=$(get_device_state $pool $disk "spares")

```

```

if [[ $state != ${cur_state} ]]; then
    return 1
fi
return 0
}

#
# Wait until a hotspare transitions to a given state or times out.
#
# Return 0 when pool/disk matches expected state, 1 on timeout.
#
function wait_hotspare_state # pool disk state timeout
{
    typeset pool=$1
    typeset disk=${2#*$DEV_DSKDIR/}
    typeset state=$3
    typeset timeout=${4:-60}
    typeset -i i=0

    while [[ $i -lt $timeout ]]; do
        if check_hotspare_state $pool $disk $state; then
            return 0
        fi

        i=$((i+1))
        sleep 1
    done

    return 1
}

#
# Verify a given slog disk is inuse or avail
#
# Return 0 is pool/disk matches expected state, 1 otherwise
#
function check_slog_state # pool disk state {online,offline,unavail}
{
    typeset pool=$1
    typeset disk=${2#$DEV_DSKDIR/}
    typeset state=$3

    cur_state=$(get_device_state $pool $disk "logs")

    if [[ $state != ${cur_state} ]]; then
        return 1
    fi
}

```



```

return 0
}

#
# Verify a given vdev disk is inuse or avail
#
# Return 0 is pool/disk matches expected state, 1 otherwise
#
function check_vdev_state # pool disk state{online,offline,unavail}
{
typeset pool=$1
typeset disk=${2#*$DEV_DSKDIR/}
typeset state=$3

cur_state=$(get_device_state $pool $disk)

if [[ $state != ${cur_state} ]]; then
return 1
fi
return 0
}

#
# Wait until a vdev transitions to a given state or times out.
#
# Return 0 when pool/disk matches expected state, 1 on timeout.
#
function wait_vdev_state # pool disk state timeout
{
typeset pool=$1
typeset disk=${2#*$DEV_DSKDIR/}
typeset state=$3
typeset timeout=${4:-60}
typeset -i i=0

while [[ $i -lt $timeout ]]; do
if check_vdev_state $pool $disk $state; then
return 0
fi

i=$((i+1))
sleep 1
done

return 1
}

#

```

```

# Check the output of 'zpool status -v <pool>',
# and to see if the content of <token> contain the <keyword> specified.
#
# Return 0 is contain, 1 otherwise
#
function check_pool_status # pool token keyword <verbose>
{
typeset pool=$1
typeset token=$2
typeset keyword=$3
typeset verbose=${4:-false}

scan=$(zpool status -v "$pool" 2>/dev/null | nawk -v token="$token:" '
($1==token) {print $0}')
if [[ $verbose == true ]]; then
log_note $scan
fi
echo $scan | grep -i "$keyword" > /dev/null 2>&1

return $?
}

#
# These 6 following functions are instance of check_pool_status()
# is_pool_resilvering - to check if the pool is resilver in progress
# is_pool_resilvered - to check if the pool is resilver completed
# is_pool_scrubbing - to check if the pool is scrub in progress
# is_pool_scrubbed - to check if the pool is scrub completed
# is_pool_scrub_stopped - to check if the pool is scrub stopped
# is_pool_scrub_paused - to check if the pool has scrub paused
# is_pool_removing - to check if the pool is removing a vdev
# is_pool_removed - to check if the pool is remove completed
#
function is_pool_resilvering #pool <verbose>
{
check_pool_status "$1" "scan" "resilver in progress since " $2
return $?
}

function is_pool_resilvered #pool <verbose>
{
check_pool_status "$1" "scan" "resilvered " $2
return $?
}

function is_pool_scrubbing #pool <verbose>
{
check_pool_status "$1" "scan" "scrub in progress since " $2

```

```

return $?
}

function is_pool_scrubbed #pool <verbose>
{
check_pool_status "$1" "scan" "scrub repaired" $2
return $?
}

function is_pool_scrub_stopped #pool <verbose>
{
check_pool_status "$1" "scan" "scrub canceled" $2
return $?
}

function is_pool_scrub_paused #pool <verbose>
{
check_pool_status "$1" "scan" "scrub paused since " $2
return $?
}

function is_pool_removing #pool
{
check_pool_status "$1" "remove" "in progress since "
return $?
}

function is_pool_removed #pool
{
check_pool_status "$1" "remove" "completed on"
return $?
}

function wait_for_degraded
{
typeset pool=$1
typeset timeout=${2:-30}
typeset t0=$SECONDS

while ;; do
[[ $(get_pool_prop health $pool) == "DEGRADED" ]] && break
log_note "$pool is not yet degraded."
sleep 1
if ((SECONDS - t0 > $timeout)); then
log_note "$pool not degraded after $timeout seconds."
return 1
fi
done

```

```

return 0
}

#
# Use create_pool()/destroy_pool() to clean up the information in
# in the given disk to avoid slice overlapping.
#
function cleanup_devices #vdevs
{
typeset pool="foopool$$"

if poolexists $pool ; then
destroy_pool $pool
fi

create_pool $pool $@
destroy_pool $pool

return 0
}

#/**
# A function to find and locate free disks on a system or from given
# disks as the parameter. It works by locating disks that are in use
# as swap devices and dump devices, and also disks listed in /etc/vfstab
#
# $@ given disks to find which are free, default is all disks in
# the test system
#
# @return a string containing the list of available disks
#*/
function find_disks
{
# Trust provided list, no attempt is made to locate unused devices.
if is_linux; then
echo "$@"
return
fi

sfi=/tmp/swaplist.$$
dmpi=/tmp/dumpdev.$$
max_finndisksnum=${MAX_FINDDISKSNUM:-6}

swap -l > $sfi
dumpadm > $dmpi 2>/dev/null

```

```

# write an awk script that can process the output of format
# to produce a list of disks we know about. Note that we have
# to escape "$2" so that the shell doesn't interpret it while
# we're creating the awk script.
# -----
cat > /tmp/find_disks.awk <<EOF
#!/bin/nawk -f
BEGIN { FS="."; }

/^Specify disk/{
  searchdisks=0;
}

{
  if (searchdisks && \$2 !~ "^$"){
    split(\$2,arr," ");
    print arr[1];
  }
}

/^AVAILABLE DISK SELECTIONS:/{
  searchdisks=1;
}
EOF
#-----

chmod 755 /tmp/find_disks.awk
disks=${ @:-$(echo "" | format -e 2>/dev/null | /tmp/find_disks.awk)}
rm /tmp/find_disks.awk

unused=""
for disk in $disks; do
# Check for mounted
grep "${disk}[sp]" /etc/mnttab >/dev/null
(($? == 0)) && continue
# Check for swap
grep "${disk}[sp]" $sfi >/dev/null
(($? == 0)) && continue
# check for dump device
grep "${disk}[sp]" $dmpi >/dev/null
(($? == 0)) && continue
# check to see if this disk hasn't been explicitly excluded
# by a user-set environment variable
echo "${ZFS_HOST_DEVICES_IGNORE}" | grep "${disk}" > /dev/null
(($? == 0)) && continue
unused_candidates="$unused_candidates $disk"
done
rm $sfi

```

```

rm $dmpi

# now just check to see if those disks do actually exist
# by looking for a device pointing to the first slice in
# each case. limit the number to max_finddisksnum
count=0
for disk in $unused_candidates; do
  if [ -b $DEV_DSKDIR/${disk}s0 ]; then
    if [ $count -lt $max_finddisksnum ]; then
      unused="$unused $disk"
      # do not impose limit if $@ is provided
      [[ -z $@ ]] && ((count = count + 1))
    fi
  fi
done

# finally, return our disk list
echo $unused
}

#
# Add specified user to specified group
#
# $1 group name
# $2 user name
# $3 base of the homedir (optional)
#
function add_user #<group_name> <user_name> <basedir>
{
  typeset gname=$1
  typeset uname=$2
  typeset basedir=${3:-"/var/tmp"}

  if ((${#gname} == 0 || ${#uname} == 0)); then
    log_fail "group name or user name are not defined."
  fi

  log_must useradd -g $gname -d $basedir/$uname -m $uname
  echo "export PATH=\"$STF_PATH\" >>$basedir/$uname/.profile"
  echo "export PATH=\"$STF_PATH\" >>$basedir/$uname/.bash_profile"
  echo "export PATH=\"$STF_PATH\" >>$basedir/$uname/.login"

  # Add new users to the same group and the command line utils.
  # This allows them to be run out of the original users home
  # directory as long as it is permissioned to be group readable.
  if is_linux; then
    cmd_group=$(stat --format="%G" $(which zfs))
    log_must usermod -a -G $cmd_group $uname
  fi
}

```

```

fi

return 0
}

#
# Delete the specified user.
#
# $1 login name
# $2 base of the homedir (optional)
#
function del_user #<logname> <basedir>
{
typeset user=$1
typeset basedir=${2:-"/var/tmp"}

if ((${#user} == 0)); then
log_fail "login name is necessary."
fi

if id $user > /dev/null 2>&1; then
log_must_retry "currently used" 5 userdel $user
fi

[[ -d $basedir/$user ]] && rm -fr $basedir/$user

return 0
}

#
# Select valid gid and create specified group.
#
# $1 group name
#
function add_group #<group_name>
{
typeset group=$1

if ((${#group} == 0)); then
log_fail "group name is necessary."
fi

# Assign 100 as the base gid, a larger value is selected for
# Linux because for many distributions 1000 and under are reserved.
if is_linux; then
while true; do
groupadd $group > /dev/null 2>&1
typeset -i ret=$?

```

```

case $ret in
  0) return 0 ;;
  *) return 1 ;;
esac
done
else
typeset -i gid=100
while true; do
  groupadd -g $gid $group > /dev/null 2>&1
  typeset -i ret=$?
  case $ret in
    0) return 0 ;;
    # The gid is not unique
    4) ((gid += 1)) ;;
    *) return 1 ;;
  esac
done
fi
}

#
# Delete the specified group.
#
# $1 group name
#
function del_group #<group_name>
{
  typeset grp=$1
  if ((${#grp} == 0)); then
    log_fail "group name is necessary."
  fi

  if is_linux; then
    getent group $grp > /dev/null 2>&1
    typeset -i ret=$?
    case $ret in
      # Group does not exist.
      2) return 0 ;;
      # Name already exists as a group name
      0) log_must groupdel $grp ;;
      *) return 1 ;;
    esac
  else
    groupmod -n $grp $grp > /dev/null 2>&1
    typeset -i ret=$?
    case $ret in
      # Group does not exist.
      6) return 0 ;;

```



```

# Name already exists as a group name
9) log_must groupdel $grp ;;
*) return 1 ;;
esac
fi

return 0
}

#
# This function will return true if it's safe to destroy the pool passed
# as argument 1. It checks for pools based on zvols and files, and also
# files contained in a pool that may have a different mountpoint.
#
function safe_to_destroy_pool { # $1 the pool name

typeset pool=""
typeset DONT_DESTROY=""

# We check that by deleting the $1 pool, we're not
# going to pull the rug out from other pools. Do this
# by looking at all other pools, ensuring that they
# aren't built from files or zvols contained in this pool.

for pool in $(zpool list -H -o name)
do
    ALTMOUNTPOOL=""

    # this is a list of the top-level directories in each of the
    # files that make up the path to the files the pool is based on
    FILEPOOL=$(zpool status -v $pool | grep /$1/ | \
    awk '{print $1}')

    # this is a list of the zvols that make up the pool
    ZVOLPOOL=$(zpool status -v $pool | grep "$ZVOL_DEVDIR/$1$" \
    | awk '{print $1}')

    # also want to determine if it's a file-based pool using an
    # alternate mountpoint...
    POOL_FILE_DIRS=$(zpool status -v $pool | \
    grep / | awk '{print $1}' | \
    awk -F/ '{print $2}' | grep -v "dev")

    for pooldir in $POOL_FILE_DIRS
    do
        OUTPUT=$(zfs list -H -r -o mountpoint $1 | \
        grep "${pooldir}$" | awk '{print $1}')
    done
done
}

```

```

ALTMOUNTPOOL="${ALTMOUNTPOOL}${OUTPUT}"
done

if [ ! -z "$ZVOLPOOL" ]
then
DONT_DESTROY="true"
log_note "Pool $pool is built from $ZVOLPOOL on $1"
fi

if [ ! -z "$FILEPOOL" ]
then
DONT_DESTROY="true"
log_note "Pool $pool is built from $FILEPOOL on $1"
fi

if [ ! -z "$ALTMOUNTPOOL" ]
then
DONT_DESTROY="true"
log_note "Pool $pool is built from $ALTMOUNTPOOL on $1"
fi
done

if [ -z "${DONT_DESTROY}" ]
then
return 0
else
log_note "Warning: it is not safe to destroy $1!"
return 1
fi
}

#
# Get the available ZFS compression options
# $1 option type zfs_set|zfs_compress
#
function get_compress_opts
{
typeset COMPRESS_OPTS
typeset GZIP_OPTS="gzip gzip-1 gzip-2 gzip-3 gzip-4 gzip-5 \
gzip-6 gzip-7 gzip-8 gzip-9"

if [[ $1 == "zfs_compress" ]]; then
COMPRESS_OPTS="on lzjb"
elif [[ $1 == "zfs_set" ]]; then
COMPRESS_OPTS="on off lzjb"
fi

typeset valid_opts="$COMPRESS_OPTS"

```

```

zfs get 2>&1 | grep gzip >/dev/null 2>&1
if [[ $? -eq 0 ]]; then
    valid_opts="$valid_opts $GZIP_OPTS"
fi
echo "$valid_opts"
}

#
# Verify zfs operation with -p option work as expected
# $1 operation, value could be create, clone or rename
# $2 dataset type, value could be fs or vol
# $3 dataset name
# $4 new dataset name
#
function verify_opt_p_ops
{
    typeset ops=$1
    typeset datatype=$2
    typeset dataset=$3
    typeset newdataset=$4

    if [[ $datatype != "fs" && $datatype != "vol" ]]; then
        log_fail "$datatype is not supported."
    fi

    # check parameters accordingly
    case $ops in
        create)
            newdataset=$dataset
            dataset=""
            if [[ $datatype == "vol" ]]; then
                ops="create -V $VOLSIZE"
            fi
            ;;
        clone)
            if [[ -z $newdataset ]]; then
                log_fail "newdataset should not be empty" \
                    "when ops is $ops."
            fi
            log_must datasetexists $dataset
            log_must snapexists $dataset
            ;;
        rename)
            if [[ -z $newdataset ]]; then
                log_fail "newdataset should not be empty" \
                    "when ops is $ops."
            fi
            log_must datasetexists $dataset

```

```

;;
*)
log_fail "$ops is not supported."
;;
esac

# make sure the upper level filesystem does not exist
destroy_dataset "${newdataset%/*}" "-rRf"

# without -p option, operation will fail
log_mustnot zfs $ops $dataset $newdataset
log_mustnot datasetexists $newdataset ${newdataset%/*}

# with -p option, operation should succeed
log_must zfs $ops -p $dataset $newdataset
block_device_wait

if ! datasetexists $newdataset ; then
log_fail "-p option does not work for $ops"
fi

# when $ops is create or clone, redo the operation still return zero
if [[ $ops != "rename" ]]; then
log_must zfs $ops -p $dataset $newdataset
fi

return 0
}

#
# Get configuration of pool
# $1 pool name
# $2 config name
#
function get_config
{
typeset pool=$1
typeset config=$2
typeset alt_root

if ! poolexists "$pool" ; then
return 1
fi
alt_root=$(zpool list -H $pool | awk '{print $NF}')
if [[ $alt_root == "-" ]]; then
value=$(zdb -C $pool | grep "$config:" | awk -F: \
' {print $2} ')
else

```

```

value=$(zdb -e $pool | grep "$config:" | awk -F: \
    '{print $2}')
fi
if [[ -n $value ]] ; then
value=${value#'}
value=${value%' '}
fi
echo $value

return 0
}

#
# Privated function. Random select one of items from arguments.
#
# $1 count
# $2-n string
#
function _random_get
{
typeset cnt=$1
shift

typeset str="$@"
typeset -i ind
((ind = RANDOM % cnt + 1))

typeset ret=$(echo "$str" | cut -f $ind -d ' ')
echo $ret
}

#
# Random select one of item from arguments which include NONE string
#
function random_get_with_non
{
typeset -i cnt=$#
((cnt =+ 1))

_random_get "$cnt" "$@"
}

#
# Random select one of item from arguments which doesn't include NONE string
#
function random_get
{
_random_get "$#" "$@"
}

```

```

}

#
# Detect if the current system support slog
#
function verify_slog_support
{
typeset dir=$TEST_BASE_DIR/disk.$$
typeset pool=foo.$$
typeset vdev=$dir/a
typeset sdev=$dir/b

mkdir -p $dir
mkfile $MINVDEVSIZE $vdev $sdev

typeset -i ret=0
if ! zpool create -n $pool $vdev log $sdev > /dev/null 2>&1; then
ret=1
fi
rm -r $dir

return $ret
}

#
# The function will generate a dataset name with specific length
# $1, the length of the name
# $2, the base string to construct the name
#
function gen_dataset_name
{
typeset -i len=$1
typeset basestr="$2"
typeset -i baselen=${#basestr}
typeset -i iter=0
typeset l_name=""

if ((len % baselen == 0)); then
((iter = len / baselen))
else
((iter = len / baselen + 1))
fi
while ((iter > 0)); do
l_name="{l_name}$basestr"

((iter -= 1))
done

```

```

echo $_name
}

#
# Get cksum tuple of dataset
# $1 dataset name
#
# sample zdb output:
# Dataset data/test [ZPL], ID 355, cr_txg 2413856, 31.0K, 7 objects, rootbp
# DVA[0]=<0:803046400:200> DVA[1]=<0:81199000:200> [L0 DMU objset] fletcher4
# lzjb LE contiguous unique double size=800L/200P birth=2413856L/2413856P
# fill=7 cksum=11ce125712:643a9c18ee2:125e25238fca0:254a3f74b59744
function datasetcksum
{
typeset cksum
sync
cksum=$(zdb -vvv $1 | grep "^Dataset $1 \[" | grep "cksum" \
| awk -F= '{print $7}')
echo $cksum
}

#
# Get cksum of file
# #1 file path
#
function checksum
{
typeset cksum
cksum=$(cksum $1 | awk '{print $1}')
echo $cksum
}

#
# Get the given disk/slice state from the specific field of the pool
#
function get_device_state #pool disk field("", "spares", "logs")
{
typeset pool=$1
typeset disk=${2#$DEV_DSKDIR/}
typeset field=${3:-$pool}

state=$(zpool status -v "$pool" 2>/dev/null | \
nawk -v device=$disk -v pool=$pool -v field=$field \
'BEGIN {startconfig=0; startfield=0; }
/config:/ {startconfig=1}
(startconfig==1) && ($1==field) {startfield=1; next;}
(startfield==1) && ($1==device) {print $2; exit;}
(startfield==1) &&

```

```

($1==field || $1 ~ "^spares$" || $1 ~ "^logs$") {startfield=0}')
echo $state
}

#
# print the given directory filesystem type
#
# $1 directory name
#
function get_fstype
{
typeset dir=$1

if [[ -z $dir ]]; then
log_fail "Usage: get_fstype <directory>"
fi

#
# $ df -n /
# / : ufs
#
df -n $dir | awk '{print $3}'
}

#
# Given a disk, label it to VTOC regardless what label was on the disk
# $1 disk
#
function labelvtoc
{
typeset disk=$1
if [[ -z $disk ]]; then
log_fail "The disk name is unspecified."
fi
typeset label_file=/var/tmp/labelvtoc.$$
typeset arch=$(uname -p)

if is_linux; then
log_note "Currently unsupported by the test framework"
return 1
fi

if [[ $arch == "i386" ]]; then
echo "label" > $label_file
echo "0" >> $label_file
echo "" >> $label_file
echo "q" >> $label_file

```



```

echo "q" >> $label_file

fdisk -B $disk >/dev/null 2>&1
# wait a while for fdisk finishes
sleep 60
elif [[ $arch == "sparc" ]]; then
echo "label" > $label_file
echo "0" >> $label_file
echo "" >> $label_file
echo "" >> $label_file
echo "" >> $label_file
echo "q" >> $label_file
else
log_fail "unknown arch type"
fi

format -e -s -d $disk -f $label_file
typeset -i ret_val=$?
rm -f $label_file
#
# wait the format to finish
#
sleep 60
if ((ret_val != 0)); then
log_fail "unable to label $disk as VTOC."
fi

return 0
}

#
# check if the system was installed as zfsroot or not
# return: 0 true, otherwise false
#
function is_zfsroot
{
df -n / | grep zfs > /dev/null 2>&1
return $?
}

#
# get the root filesystem name if it's zfsroot system.
#
# return: root filesystem name
function get_rootfs
{
typeset rootfs=""

```

```

if ! is_linux; then
  rootfs=$(awk '{if ($2 == "/" && $3 == "zfs") print $1}' \
    /etc/mnttab)
fi
if [[ -z "$rootfs" ]]; then
  log_fail "Can not get rootfs"
fi
zfs list $rootfs > /dev/null 2>&1
if (($? == 0)); then
  echo $rootfs
else
  log_fail "This is not a zfsroot system."
fi
}

#
# get the rootfs's pool name
# return:
#   rootpool name
#
function get_rootpool
{
  typeset rootfs=""
  typeset rootpool=""

  if ! is_linux; then
    rootfs=$(awk '{if ($2 == "/" && $3 == "zfs") print $1}' \
      /etc/mnttab)
  fi
  if [[ -z "$rootfs" ]]; then
    log_fail "Can not get rootpool"
  fi
  zfs list $rootfs > /dev/null 2>&1
  if (($? == 0)); then
    rootpool=`echo $rootfs | awk -F/ '{print $1}'`
    echo $rootpool
  else
    log_fail "This is not a zfsroot system."
  fi
}

#
# Get the package name
#
function get_package_name
{
  typeset dirpath=${1:-$STC_NAME}

```

```

echo "SUNWstc- $\{dirpath\}$ " | /usr/bin/sed -e "s/\//-/g"
}

#
# Get the word numbers from a string separated by white space
#
function get_word_count
{
echo $1 | wc -w
}

#
# To verify if the require numbers of disks is given
#
function verify_disk_count
{
typeset -i min=${2:-1}

typeset -i count=$(get_word_count "$1")

if ((count < min)); then
log_untested "A minimum of $min disks is required to run." \
" You specified $count disk(s)"
fi
}

function ds_is_volume
{
typeset type=$(get_prop type $1)
[[ $type = "volume" ]] && return 0
return 1
}

function ds_is_filesystem
{
typeset type=$(get_prop type $1)
[[ $type = "filesystem" ]] && return 0
return 1
}

function ds_is_snapshot
{
typeset type=$(get_prop type $1)
[[ $type = "snapshot" ]] && return 0
return 1
}

#

```

```

# Check if Trusted Extensions are installed and enabled
#
function is_te_enabled
{
svcs -H -o state labeld 2>/dev/null | grep "enabled"
if (($? != 0)); then
return 1
else
return 0
fi
}

# Utility function to determine if a system has multiple cpus.
function is_mp
{
if is_linux; then
(($(nproc) > 1))
else
(($(psrinfo | wc -l) > 1))
fi

return $?
}

function get_cpu_freq
{
if is_linux; then
lscpu | awk '/CPU MHz/ { print $3 }'
else
psrinfo -v 0 | awk '/processor operates at/ {print $6}'
fi
}

# Run the given command as the user provided.
function user_run
{
typeset user=$1
shift

log_note "user:$user $@"
eval su - \${user} -c "\${@}" > $TEST_BASE_DIR/out 2>$TEST_BASE_DIR/err
return $?
}

#
# Check if the pool contains the specified vdevs
#
# $1 pool

```

```

# $2..n <vdev> ...
#
# Return 0 if the vdevs are contained in the pool, 1 if any of the specified
# vdevs is not in the pool, and 2 if pool name is missing.
#
function vdevs_in_pool
{
typeset pool=$1
typeset vdev

if [[ -z $pool ]]; then
log_note "Missing pool name."
return 2
fi

shift

# We could use 'zpool list' to only get the vdevs of the pool but we
# can't reference a mirror/raidz vdev using its ID (i.e mirror-0),
# therefore we use the 'zpool status' output.
typeset tmpfile=$(mktemp)
zpool status -v "$pool" | grep -A 1000 "config:" >$tmpfile
for vdev in $@; do
grep -w ${vdev##*/} $tmpfile >/dev/null 2>&1
[[ $? -ne 0 ]] && return 1
done

rm -f $tmpfile

return 0;
}

function get_max
{
typeset -l i max=$1
shift

for i in "$@"; do
max=$(echo $((max > i ? max : i))
done

echo $max
}

function get_min
{
typeset -l i min=$1
shift

```

```

for i in "$@"; do
    min=$(echo $((min < i ? min : i)))
done

echo $min
}

#
# Generate a random number between 1 and the argument.
#
function random
{
    typeset max=$1
    echo $(( $RANDOM % $max + 1 ))
}

# Write data that can be compressed into a directory
function write_compressible
{
    typeset dir=$1
    typeset megs=$2
    typeset nfiles=${3:-1}
    typeset bs=${4:-1024k}
    typeset fname=${5:-file}

    [[ -d $dir ]] || log_fail "No directory: $dir"

    # Under Linux fio is not currently used since its behavior can
    # differ significantly across versions. This includes missing
    # command line options and cases where the --buffer_compress_*
    # options fail to behave as expected.
    if is_linux; then
        typeset file_bytes=$(to_bytes $megas)
        typeset bs_bytes=4096
        typeset blocks=$((file_bytes / bs_bytes))

        for (( i = 0; i < $nfiles; i++ )); do
            truncate -s $file_bytes $dir/$fname.$i

            # Write every third block to get 66% compression.
            for (( j = 0; j < $blocks; j += 3 )); do
                dd if=/dev/urandom of=$dir/$fname.$i \
                    seek=$j bs=$bs_bytes count=1 \
                    conv=notrunc >/dev/null 2>&1
            done
        done
    else

```

```

log_must eval "fio \
  --name=job \
  --fallocate=0 \
  --minimal \
  --randrepeat=0 \
  --buffer_compress_percentage=66 \
  --buffer_compress_chunk=4096 \
  --directory=$dir \
  --numjobs=$nfiles \
  --nrfiles=$nfiles \
  --rw=write \
  --bs=$bs \
  --filesize=$megs \
  --filename_format='$fname.\$jobnum' >/dev/null"
fi
}

function get_objnum
{
typeset pathname=$1
typeset objnum

[[ -e $pathname ]] || log_fail "No such file or directory: $pathname"
objnum=$(stat -c %i $pathname)
echo $objnum
}

#
# Sync data to the pool
#
# $1 pool name
# $2 boolean to force uberblock (and config including zpool cache file) update
#
function sync_pool #pool <force>
{
typeset pool=${1:-$TESTPOOL}
typeset force=${2:-false}

if [[ $force == true ]]; then
  log_must zpool sync -f $pool
else
  log_must zpool sync $pool
fi

return 0
}

#

```

```

# Wait for zpool 'freeing' property drops to zero.
#
# $1 pool name
#
function wait_freeing #pool
{
typeset pool=${1:-$TESTPOOL}
while true; do
[[ "0" == "$(zpool list -Ho freeing $pool)" ]] && break
log__must sleep 1
done
}

#
# Wait for every device replace operation to complete
#
# $1 pool name
#
function wait_replacing #pool
{
typeset pool=${1:-$TESTPOOL}
while true; do
[[ "" == "$(zpool status $pool |
awk '/replacing-[0-9]+/ {print $1}')" ]] && break
log__must sleep 1
done
}

#
# Wait for a pool to be scrubbed
#
# $1 pool name
# $2 number of seconds to wait (optional)
#
# Returns true when pool has been scrubbed, or false if there's a timeout or if
# no scrub was done.
#
function wait_scrubbed
{
typeset pool=${1:-$TESTPOOL}
while true ; do
is_pool_scrubbed $pool && break
log__must sleep 1
done
}

# Backup the zed.rc in our test directory so that we can edit it for our test.
#

```



```

# Returns: Backup file name. You will need to pass this to zed_rc_restore().
function zed_rc_backup
{
zedrc_backup="$(mktemp)"
cp $ZEDLET_DIR/zed.rc $zedrc_backup
echo $zedrc_backup
}

function zed_rc_restore
{
mv $1 $ZEDLET_DIR/zed.rc
}

#
# Setup custom environment for the ZED.
#
# @$ Optional list of zedlets to run under zed.
function zed_setup
{
if ! is_linux; then
return
fi

if [[ ! -d $ZEDLET_DIR ]]; then
log_must mkdir $ZEDLET_DIR
fi

if [[ ! -e $VDEVID_CONF ]]; then
log_must touch $VDEVID_CONF
fi

if [[ -e $VDEVID_CONF_ETC ]]; then
log_fail "Must not have $VDEVID_CONF_ETC file present on system"
fi
EXTRA_ZEDLETS=$@

# Create a symlink for /etc/zfs/vdev_id.conf file.
log_must ln -s $VDEVID_CONF $VDEVID_CONF_ETC

# Setup minimal ZED configuration. Individual test cases should
# add additional ZEDLETs as needed for their specific test.
log_must cp ${ZEDLET_ETC_DIR}/zed.rc $ZEDLET_DIR
log_must cp ${ZEDLET_ETC_DIR}/zed-functions.sh $ZEDLET_DIR

# Scripts must only be user writable.
if [[ -n "$EXTRA_ZEDLETS" ]] ; then
saved_umask=$(umask)
log_must umask 0022

```

```

for i in $EXTRA_ZEDLETS ; do
    log_must cp ${ZEDLET_LIBEXEC_DIR}/${i} $ZEDLET_DIR
done
log_must umask $saved_umask
fi

# Customize the zed.rc file to enable the full debug log.
log_must sed -i '\/#ZED_DEBUG_LOG=.*'/d' $ZEDLET_DIR/zed.rc
echo "ZED_DEBUG_LOG=$ZED_DEBUG_LOG" >>$ZEDLET_DIR/zed.rc

}

#
# Cleanup custom ZED environment.
#
# $@ Optional list of zedlets to remove from our test zed.d directory.
function zed_cleanup
{
    if ! is_linux; then
        return
    fi
    EXTRA_ZEDLETS=$@

    log_must rm -f ${ZEDLET_DIR}/zed.rc
    log_must rm -f ${ZEDLET_DIR}/zed-functions.sh
    log_must rm -f ${ZEDLET_DIR}/all-syslog.sh
    log_must rm -f ${ZEDLET_DIR}/all-debug.sh
    log_must rm -f ${ZEDLET_DIR}/state

    if [[ -n "$EXTRA_ZEDLETS" ]] ; then
        for i in $EXTRA_ZEDLETS ; do
            log_must rm -f ${ZEDLET_DIR}/${i}
        done
    fi
    log_must rm -f $ZED_LOG
    log_must rm -f $ZED_DEBUG_LOG
    log_must rm -f $VDEVID_CONF_ETC
    log_must rm -f $VDEVID_CONF
    rmdir $ZEDLET_DIR
}

#
# Check if ZED is currently running, if not start ZED.
#
function zed_start
{
    if ! is_linux; then
        return
    fi

```

```

fi

# ZEDLET_DIR=/var/tmp/zed
if [[ ! -d $ZEDLET_DIR ]]; then
    log_must mkdir $ZEDLET_DIR
fi

# Verify the ZED is not already running.
pgrep -x zed > /dev/null
if (($? == 0)); then
    log_fail "ZED already running"
fi

log_note "Starting ZED"
# run ZED in the background and redirect foreground logging
# output to $ZED_LOG.
log_must truncate -s 0 $ZED_DEBUG_LOG
log_must eval "zed -vF -d $ZEDLET_DIR -p $ZEDLET_DIR/zed.pid -P $PATH" \
    "-s $ZEDLET_DIR/state 2>$ZED_LOG &"

return 0
}

#
# Kill ZED process
#
function zed_stop
{
    if ! is_linux; then
        return
    fi

    log_note "Stopping ZED"
    if [[ -f ${ZEDLET_DIR}/zed.pid ]]; then
        zedpid=$(<${ZEDLET_DIR}/zed.pid)
        kill $zedpid
        while ps -p $zedpid > /dev/null; do
            sleep 1
        done
        rm -f ${ZEDLET_DIR}/zed.pid
    fi
    return 0
}

#
# Drain all zevents
#
function zed_events_drain

```

```

{
while [ $(zpool events -H | wc -l) -ne 0 ]; do
    sleep 1
    zpool events -c >/dev/null
done
}

# Set a variable in zed.rc to something, un-commenting it in the process.
#
# $1 variable
# $2 value
function zed_rc_set
{
    var="$1"
    val="$2"
    # Remove the line
    cmd="/$var/d"
    eval sed -i $cmd $ZEDLET_DIR/zed.rc

    # Add it at the end
    echo "$var=$val" >> $ZEDLET_DIR/zed.rc
}

#
# Check is provided device is being active used as a swap device.
#
function is_swap_inuse
{
    typeset device=$1

    if [[ -z $device ]] ; then
        log_note "No device specified."
        return 1
    fi

    if is_linux; then
        swapon -s | grep -w $(readlink -f $device) > /dev/null 2>&1
    else
        swap -l | grep -w $device > /dev/null 2>&1
    fi

    return $?
}

#
# Setup a swap device using the provided device.
#

```

```

function swap_setup
{
typeset swapdev=$1

if is_linux; then
log_ must eval "mkswap $swapdev > /dev/null 2>&1"
log_ must swapon $swapdev
else
log_ must swap -a $swapdev
fi

return 0
}

#
# Cleanup a swap device on the provided device.
#
function swap_cleanup
{
typeset swapdev=$1

if is_swap_inuse $swapdev; then
if is_linux; then
log_ must swapoff $swapdev
else
log_ must swap -d $swapdev
fi
fi

return 0
}

#
# Set a global system tunable (64-bit value)
#
# $1 tunable name
# $2 tunable values
#
function set_tunable64
{
set_tunable_impl "$1" "$2" Z
}

#
# Set a global system tunable (32-bit value)
#
# $1 tunable name
# $2 tunable values

```

```

#
function set_tunable32
{
    set_tunable_impl "$1" "$2" W
}

function set_tunable_impl
{
    typeset tunable="$1"
    typeset value="$2"
    typeset mdb_cmd="$3"
    typeset module="{4:-zfs}"

    [[ -z "$tunable" ]] && return 1
    [[ -z "$value" ]] && return 1
    [[ -z "$mdb_cmd" ]] && return 1

    case "$(uname)" in
        Linux)
            typeset zfs_tunables="/sys/module/$module/parameters"
            [[ -w "$zfs_tunables/$tunable" ]] || return 1
            echo -n "$value" > "$zfs_tunables/$tunable"
            return "$?"
            ;;
        SunOS)
            [[ "$module" -eq "zfs" ]] || return 1
            echo "${tunable}/${mdb_cmd}0t${value}" | mdb -kw
            return "$?"
            ;;
    esac
}

```

```

#
# Get a global system tunable
#
# $1 tunable name
#
function get_tunable
{
    get_tunable_impl "$1"
}

```

```

function get_tunable_impl
{
    typeset tunable="$1"
    typeset module="{2:-zfs}"

    [[ -z "$tunable" ]] && return 1

```

```

case "$(uname)" in
Linux)
typeset zfs_tunables="/sys/module/$module/parameters"
[[ -f "$zfs_tunables/$tunable" ]] || return 1
cat $zfs_tunables/$tunable
return "$?"
;;
SunOS)
[[ "$module" -eq "zfs" ]] || return 1
;;
esac

return 1
}

#
# Prints the current time in seconds since UNIX Epoch.
#
function current_epoch
{
printf '%(%s)T'
}

#
# Get decimal value of global uint32_t variable using mdb.
#
function mdb_get_uint32
{
typeset variable=$1
typeset value

value=$(mdb -k -e "$variable/X | ::eval .=U")
if [[ $? -ne 0 ]]; then
log_fail "Failed to get value of '$variable' from mdb."
return 1
fi

echo $value
return 0
}

#
# Set global uint32_t variable to a decimal value using mdb.
#
function mdb_set_uint32
{
typeset variable=$1

```

```

typeset value=$2

mdb -kw -e "$variable/W 0t$value" > /dev/null
if [[ $? -ne 0 ]]; then
  echo "Failed to set '$variable' to '$value' in mdb."
  return 1
fi

return 0
}

#
# Set global scalar integer variable to a hex value using mdb.
# Note: Target should have CTF data loaded.
#
function mdb_ctf_set_int
{
  typeset variable=$1
  typeset value=$2

  mdb -kw -e "$variable/z $value" > /dev/null
  if [[ $? -ne 0 ]]; then
    echo "Failed to set '$variable' to '$value' in mdb."
    return 1
  fi

  return 0
}

```

Found in path(s):

```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/include/libtest.shlib

```

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Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/kstat.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/thread_pool.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/sysevent/dev.h
```

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--
--
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--
-- Test recursion in LUA. Deep recursion should work because it does
-- not use the C stack. The LUA stack is allocated from the kernel's
-- heap, up to the specified memory limit.
```

```
arg = ...
argv = arg["argv"]
```

```
function f (x)
  if (x == 0) then
    return x
  end
  return f(x-1) + 1
end
```

```
r = f(argv[1])
```

```
return r
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/lua_core/tst.recursive.zcp
```

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```
/*
```

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```
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*
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xz/usr/include/libzfs/sys/zfs_ratelimit.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/include/libzfs/sys/frame.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/include/libzfs/sys/mmp.h
```

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```
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*
```

```
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*/
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/*
```

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*/

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectid_003_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/projectquota/projectspace_004_pos.ksh

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#

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#

.\$STF_SUITE/include/libtest.shlib

.\$STF_SUITE/tests/functional/cli_root/zpool_import/zpool_import.cfg

#

Prototype cleanup function for zpool_import tests.

#

function cleanup

{

clear any remaining zinjects

log_must zinject -c all > /dev/null

```

destroy_pool $TESTPOOL1

log_must rm -f $CPATH $CPATHBKP $CPATHBKP2 $MD5FILE $MD5FILE2

log_must rm -rf $DEVICE_DIR/*
typeset i=0
while (( i < $MAX_NUM )); do
    log_must mkfile $FILE_SIZE ${DEVICE_DIR}/${DEVICE_FILE}$i
    ((i += 1))
done
is_linux && set_tunable32 "zfs_txg_history" 0
}

#
# Write a bit of data and sync several times.
# This function is intended to be used by zpool rewind tests.
#
function sync_some_data_a_few_times
{
    typeset pool=$1
    typeset -i a_few_times=${2:-10}

    typeset file="/$pool/tmpfile"
    for i in {0..$a_few_times}; do
        dd if=/dev/urandom of=${file}_$i bs=128k count=10
        sync_pool "$pool"
    done

    return 0
}

#
# Just write a moderate amount of data to the pool.
#
function write_some_data
{
    typeset pool=$1
    typeset files10mb=${2:-10}

    typeset ds="$pool/fillerds"
    zfs create $ds
    [[ $? -ne 0 ]] && return 1

    # Create 100 MB of data
    typeset file="/$ds/fillerfile"
    for i in {1..$files10mb}; do
        dd if=/dev/urandom of=$file.$i bs=128k count=80
    done
}

```

```

[[ $? -ne 0 ]] && return 1
done

return 0
}

#
# Create/overwrite a few datasets with files.
# Apply md5sum on all the files and store checksums in a file.
#
# newdata: overwrite existing files if false.
# md5file: file where to store md5sums
# datasetname: base name for datasets
#
function _generate_data_common
{
typeset pool=$1
typeset newdata=$2
typeset md5file=$3
typeset datasetname=$4

typeset -i datasets=3
typeset -i files=5
typeset -i blocks=10

[[ -n $md5file ]] && rm -f $md5file
for i in {1..$datasets}; do
( $newdata ) && log_must zfs create "$pool/$datasetname$i"
for j in {1..$files}; do
typeset file="/$pool/$datasetname$i/file$j"
dd if=/dev/urandom of=$file bs=128k count=$blocks > /dev/null
[[ -n $md5file ]] && md5sum $file >> $md5file
done
( $newdata ) && sync_pool "$pool"
done

return 0
}

function generate_data
{
typeset pool=$1
typeset md5file="$2"
typeset datasetname=${3:-ds}

_generate_data_common $pool true "$md5file" $datasetname
}

```

```

function overwrite_data
{
typeset pool=$1
typeset md5file="$2"
typeset datasetname=${3:-ds}

_generate_data_common $1 false "$md5file" $datasetname
}

#
# Verify md5sums of every file in md5sum file $1.
#
function verify_data_md5sums
{
typeset md5file=$1

if [[ ! -f $md5file ]]; then
log_note "md5 sums file '$md5file' doesn't exist"
return 1
fi

md5sum -c --quiet $md5file
return $?
}

#
# Set devices size in DEVICE_DIR to $1.
#
function increase_device_sizes
{
typeset newfilesize=$1

typeset -i i=0
while (( i < $MAX_NUM )); do
log_must mkfile $newfilesize ${DEVICE_DIR}/${DEVICE_FILE}$i
((i += 1))
done
}

#
# Translate vdev names returned by zpool status into more generic names.
#
# eg: mirror-2 --> mirror
#
function _translate_vdev
{
typeset vdev=$1

```

```

typeset keywords="mirror replacing raidz1 raidz2 raidz3 indirect"
for word in $keywords; do
echo $vdev | egrep "^${word}-[0-9]+\$" > /dev/null
if [[ $? -eq 0 ]]; then
vdev=$word
break
fi
done

[[ $vdev == "logs" ]] && echo "log" && return 0
[[ $vdev == "raidz1" ]] && echo "raidz" && return 0

echo $vdev
return 0
}

#
# Check that pool configuration returned by zpool status matches expected
# configuration. Format for the check string is same as the vdev arguments for
# creating a pool
# Add -q for quiet mode.
#
# eg: check_pool_config pool1 "mirror c0t0d0s0 c0t1d0s0 log c1t1d0s0"
#
function check_pool_config
{
typeset logfailure=true
if [[ $1 == '-q' ]]; then
logfailure=false
shift
fi

typeset poolname=$1
typeset expected=$2

typeset status
status=$(zpool status $poolname 2>&1)
if [[ $? -ne 0 ]]; then
if ( $logfailure ); then
log_note "zpool status $poolname failed: $status"
fi
return 1
fi

typeset actual=""
typeset began=false
printf "$status\n" | while read line; do
typeset vdev=$(echo "$line" | awk '{printf $1}')

```

```

if ( ! $began ) && [[ $vdev == NAME ]]; then
    began=true
    continue
fi
( $began ) && [[ -z $vdev ]] && break;

if ( $began ); then
    [[ -z $actual ]] && actual="$vdev" && continue
    vdev=$( _translate_vdev $vdev )
    actual="$actual $vdev"
fi
done

expected="$poolname $expected"

if [[ "$actual" != "$expected" ]]; then
    if ( $logfailure ); then
        log_note "expected pool vdevs:"
        log_note "> '$expected'"
        log_note "actual pool vdevs:"
        log_note "> '$actual'"
    fi
    return 1
fi

return 0
}

#
# Check that pool configuration returned by zpool status matches expected
# configuration within a given timeout in seconds. See check_pool_config().
#
# eg: wait_for_pool_config pool1 "mirror c0t0d0s0 c0t1d0s0" 60
#
function wait_for_pool_config
{
    typeset poolname=$1
    typeset expectedconfig="$2"
    typeset -i timeout=${3:-60}

    timeout=$(( $timeout + $(date +%s) ))

    while (( $(date +%s) < $timeout )); do
        check_pool_config -q $poolname "$expectedconfig"
        [[ $? -eq 0 ]] && return 0
        sleep 3
    done
}

```



```

check_pool_config $poolname "$expectedconfig"
return $?
}

#
# Check that pool status is ONLINE
#
function check_pool_healthy
{
typeset pool=$1

typeset status
status=$(zpool status $pool 2>&1)
if [[ $? -ne 0 ]]; then
log_note "zpool status $pool failed: $status"
return 1
fi

status=$(echo "$status" | grep "$pool" | grep -v "pool:" | \
awk '{print $2}')

if [[ $status != "ONLINE" ]]; then
log_note "Invalid zpool status for '$pool': '$status'" \
"!= 'ONLINE'"
return 1
fi

return 0
}

#
# Return 0 if a device is currently being replaced in the pool.
#
function pool_is_replacing
{
typeset pool=$1

zpool status $pool | grep "replacing" | grep "ONLINE" > /dev/null

return $?
}

function set_vdev_validate_skip
{
set_tunable32 "vdev_validate_skip" "$1"
}

function get_zfs_txg_timeout

```

```

{
  get_tunable "zfs_txg_timeout"
}

function set_zfs_txg_timeout
{
  set_tunable32 "zfs_txg_timeout" "$1"
}

function set_spa_load_verify_metadata
{
  set_tunable32 "spa_load_verify_metadata" "$1"
}

function set_spa_load_verify_data
{
  set_tunable32 "spa_load_verify_data" "$1"
}

function set_zfs_max_missing_tvds
{
  set_tunable32 "zfs_max_missing_tvds" "$1"
}

#
# Use mdb to find the last txg that was synced in an active pool.
#
function get_last_txg_synced
{
  typeset pool=$1

  if is_linux; then
    txg=$(tail "/proc/spl/kstat/zfs/$pool/txgs" |
      awk ' $3=="C" {print $1}' | tail -1)
    [[ "$txg" ]] || txg=0
    echo $txg
    return 0
  fi

  typeset spas
  spas=$(mdb -k -e "::$spa")
  [[ $? -ne 0 ]] && return 1

  typeset spa=""
  print "$spas\n" | while read line; do
    typeset poolname=$(echo "$line" | awk '{print $3}')
    typeset addr=$(echo "$line" | awk '{print $1}')
    if [[ $poolname == $pool ]]; then

```

```

spa=$addr
break
fi
done
if [[ -z $spa ]]; then
log_fail "Couldn't find pool '$pool'"
return 1
fi
typeset mdbcmd="$spa::print spa_t spa_ubsync.ub_txg | ::eval ':=E'"
typeset -i txg
txg=$(mdb -k -e "$mdbcmd")
[[ $? -ne 0 ]] && return 1

echo $txg
return 0
}

```

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```

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```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_online_offline.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/trim/autotrim_trim_integrity.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_rate.ksh
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_multiple.ksh
```

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/trim/trim_integrity.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_start_and_cancel_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_import_export.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_verify_checksums.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/trim/setup.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_trim/zpool_trim_secure.ksh
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```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/zfeature_common.h
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_recursive.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.parse_args_neg.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_destroy.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_simple.ksh

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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/cleanup.ksh
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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_expand/setup.ksh
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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_online/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_detach/setup.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_all_mountpoints.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_zhack_feat.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_vdev_add.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/luacore/tst.exists.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_twice.ksh

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xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/checkpoint_rewind.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/removal/remove_mirror_sanity.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.list_user_props.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade_008_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/tmpfile/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/sparse/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/mv_files/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config009.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config023.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config015.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/mmap/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state016.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/compression/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/ctime/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state012.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state009.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config017.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/large_files/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/libzfs/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_list/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/exec/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/link_count/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config011.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config002.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/quotas/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/rename_dirs/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/clean_mirror_004_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config012.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_misc/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config022.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state008.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state014.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cp_files/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/compression/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/zpool_status_001_neg.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state003.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/scrub_mirror_003_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_005_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state005.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config024.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/clean_mirror_001_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config014.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/reservation/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state004.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config019.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state019.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/features/async_destroy/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config013.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state010.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state006.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config016.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/reservation/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/redundancy_002_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/history/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/scrub_mirror_001_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/nestedfs/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/zpool_iostat_004_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/misc/misc.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/clean_mirror_002_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config006.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/replacement/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zpool_iostat/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state021.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config005.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/zfs_list.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/mmap/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/quota/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/rename_dirs/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state018.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state001.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/write_dirs/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/threadsappend/setup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state013.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config007.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state024.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config018.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state002.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config021.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state011.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/ctime/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/large_files/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config008.cfg

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/redundancy_003_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/threadsappend/cleanup.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/features/async_destroy/cleanup.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config001.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config003.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/devices/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_cli/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/exec/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/devices/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state023.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state015.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/config010.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/clean_mirror_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/nestedfs/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cp_files/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/redundancy_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inheritance/state020.cfg
```

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```

```
.$STF_SUITE/include/libtest.shlib
.$STF_SUITE/tests/functional/slog/slog.cfg
```

```
function cleanup
{
    poolexists $TESTPOOL && destroy_pool $TESTPOOL
    poolexists $TESTPOOL2 && destroy_pool $TESTPOOL2
    rm -rf $TESTDIR
}
```

```
#
# Try zpool status/iostat for given pool
#
# $1 pool
#
```

```
function display_status
{
    typeset pool=$1
```

```
typeset -i ret=0
zpool status -xv $pool > /dev/null 2>&1
ret=$?
```

```
zpool iostat > /dev/null 2>&1
((ret |= $?))
```

```
typeset mntpnt=$(get_prop mountpoint $pool)
dd if=/dev/urandom of=$mntpnt/testfile.$$ &
typeset pid=$!
```

```
zpool iostat -v 1 3 > /dev/null
((ret |= $?))
```

```

kill -9 $pid
wait

return $ret
}

#
# Verify the give slog device have correct type and status
#
# $1 pool name
# $2 device name
# $3 device status
# $4 device type
#
function verify_slog_device
{
typeset pool=$1
typeset device=$2
typeset status=$3
typeset type=$4

if [[ -z $pool || -z $device || -z $status ]]; then
log_fail "Usage: verify_slog_device <pool> <device> " \
"<status> [type]"
fi

#
# Get all the slog devices and status table like below
#
# mirror:/disks/d ONLINE mirror:/disks/e ONLINE stripe:/disks/f ONLINE
#
set -A dev_stat_tab $(zpool status -v $pool | nawk 'BEGIN {start=0} \
^tlogs/ {start=1}
^tmirror/ || ^tspares/ || /^$/ {start=0}
(start==1) && ^t (|[a-zA-Z])/ \
{print "stripe:" $1 " " $2}
(start==1) && ^t (|[a-zA-Z])/ \
{print "mirror:" $1 " " $2}
# When hotspare is replacing
(start==1) && ^t (|[a-zA-Z])/ \
{print "mirror:" $1 " " $2}'
)

typeset -i i=0
typeset find=0
while (( i < ${#dev_stat_tab[@]} )); do
typeset dev=${dev_stat_tab[$i]}

```



```

typeset stat=${dev_stat_tab[((i+1))]}

case $dev in
stripe:$device)
if [[ "$type" == 'mirror' ]]; then
log_note "Unexpected type: mirror"
return 1
else
if [[ $stat != $status ]]; then
log_note "Status($stat) " \
"!= Expected stat($status)"
return 1
fi
return 0
fi
;;
mirror:$device)
if [[ -z "$type" || $type == 'stripe' ]]; then
log_note "Unexpected type: stripe"
return 1
else
if [[ $stat != $status ]]; then
log_note "Status($stat) " \
"!= Expected stat($status)"
return 1
fi
return 0
fi
;;
esac

((i += 2))
done

log_note "Can not find device: $device"

return 1
}

```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog.kshlib
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_offline/zpool_offline_003_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_010_neg.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_008_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/zpool_export_002_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_002_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_003_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_005_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_009_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/zpool_export_003_neg.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/mountpoint_003_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_008_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/truncate_001_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/user_property_004_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_011_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_012_pos.ksh  
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_003_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/zfs_unmount_009_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_008_neg.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_001_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_007_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rename/zfs_rename_011_pos.ksh  
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_005_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_offline/zpool_offline_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/cache_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/zfs_set_003_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_019_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_inherit/zfs_inherit_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/zfs_snapshot_007_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/canmount_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/canmount_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/zfs_upgrade_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add_009_neg.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_013_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_005_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_002_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/libzfs/libzfs_input.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/removal/remove_expanded.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_006_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_008_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_011_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_012_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_009_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_004_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_010_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/pool_checkpoint/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/alloc_class/alloc_class_001_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/zfs_mount_006_pos.ksh

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xz/usr/share/zfs/zfs-tests/tests/functional/delegate/delegate.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/replacement/replacement.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/devices/devices.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/online_offline/online_offline.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/reservation/reservation.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/no_space/enospc.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refreserv/refreserv.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/clean_mirror/default.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refreserv/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/inuse/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/quota/quota.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refquota/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/default.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/grow/grow.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/compression/compress.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/largest_pool/largest_pool.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/checksum/default.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/history/history.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

```
xz/usr/share/zfs/zfs-tests/tests/functional/cachefile/cachefile.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/refreserv/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/redundancy/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/sparse/sparse.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rootpool/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/rootpool/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/mv_files/mv_files.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/snapshot/snapshot.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol.cfg
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zdb/zdb_001_neg.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/bootfs/bootfs_005_neg.ksh
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```

```
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#
```

[global]

```
filename_format=file$jobnum
group_reporting=1
fallocate=0
thread=1
rw=randwrite
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bs=${BLOCKSIZE}
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}
filesize=${FILESIZE}
buffer_compress_percentage=66
buffer_compress_chunk=4096
```

```
[job]
```

```
Found in path(s):
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/perf/fio/random_writes.fio
```

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xz/usr/share/zfs/zfs-tests/callbacks/zfs_mmp.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/scrub_after_resilver.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/decompress_fault.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/fault/decrypt_fault.ksh
```

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```
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_resilver/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
```

```
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_resilver/zpool_resilver.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_resilver/zpool_resilver_bad_args.ksh
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--
```

```
arg = ...
fs = arg["argv"][1]
snap = arg["argv"][2]
```

```
props = { }
```

```
-- prop          filesystem      snapshot
props['redundant_metadata'] = {'all', 'default'}, {nil, nil}}
props['sync']           = {'standard', 'default'}, {nil, nil}}
props['checksum']       = {'on', 'default'}, {nil, nil}}
props['dedup']          = {'off', 'default'}, {nil, nil}}
props['compression']    = {'off', 'default'}, {nil, nil}}
props['snapdir']        = {'hidden', 'default'}, {nil, nil}}
props['acltype']        = {'off', 'default'}, {'off', 'default'}}
props['aclinherit']     = {'restricted', 'default'}, {nil, nil}}
props['copies']         = {'1', 'default'}, {nil, nil}}
props['primarycache']   = {'all', 'default'}, {'all', 'default'}}
props['secondarycache'] = {'all', 'default'}, {'all', 'default'}}
props['logbias']        = {'latency', 'default'}, {nil, nil}}
props['atime']          = {'on', 'default'}, {nil, nil}}
props['devices']        = {'on', 'default'}, {'on', 'default'}}
props['exec']           = {'on', 'default'}, {'on', 'default'}}
props['setuid']         = {'on', 'default'}, {'on', 'default'}}
props['readonly']       = {'off', 'default'}, {nil, nil}}
props['zoned']          = {'off', 'default'}, {nil, nil}}
props['vscan']          = {'off', 'default'}, {nil, nil}}
props['nbmand']         = {'off', 'default'}, {'off', 'default'}}
props['version']        = {'5', nil}, {'5', nil}}
```



```

props['canmount']      = {{ 'on',      'default'}, {nil,      nil}}
props['mounted']      = {{ nil,      nil}, {nil,      nil}}
props['defer_destroy'] = {{ nil,      nil}, {'off',    nil}}
props['normalization'] = {{ 'none',    nil}, {'none',    nil}}
props['casesensitivity'] = {{ 'sensitive', nil}, {'sensitive', nil}}
props['utf8only']     = {{ 'off',      nil}, {'off',      nil}}
props['dnodesize']    = {{ 'legacy',  'default'}, {nil,      nil}}
props['relatime']     = {{ 'off',      'default'}, {nil,      nil}}
props['overlay']      = {{ 'off',      'default'}, {nil,      nil}}

```

```
fs_fails = { }
```

```
snap_fails = { }
```

```
for prop, expected in pairs(props) do
```

```
  ans, src = zfs.get_prop(fs, prop)
```

```
  if ((ans ~= expected[1][1]) or (src ~= expected[1][2])) then
```

```
    fs_fails[prop] = {ans, src}
```

```
  end
```

```
  ans, src = zfs.get_prop(snap, prop)
```

```
  if ((ans ~= expected[2][1]) or (src ~= expected[2][2])) then
```

```
    snap_fails[prop] = {ans, src}
```

```
  end
```

```
end
```

```
return {fs_fails, snap_fails}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.get_index_props.zcp
```

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xz/usr/include/libzfs/libzutil.h
```

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```

```
. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/scrub_mirror/default.cfg
```

```
function overwrite_verify_mirror
{
```

```

typeset AFFECTED_DEVICE=$1
typeset OVERWRITING_DEVICE=$2

typeset atfile=0
set -A files
set -A cksums
set -A newcksums

while (( atfile < FILE_COUNT )); do
files[$atfile]=$TESTDIR/file.$atfile
log_must file_write -o create -f $TESTDIR/file.$atfile \
-b $FILE_SIZE -c 1
cksums[$atfile]=$(cksum ${files[$atfile]})
(( atfile = atfile + 1 ))
done

# dd the affected side of the mirror
log_must dd if=$OVERWRITING_DEVICE of=$AFFECTED_DEVICE \
seek=8 bs=$DD_BLOCK count=$(( DD_COUNT - 128 )) conv=notrunc

log_must zpool scrub $TESTPOOL
log_must wait_scrubbed $TESTPOOL

atfile=0

typeset -i failedcount=0
while (( atfile < FILE_COUNT )); do
files[$atfile]=$TESTDIR/file.$atfile
newcksum=$(cksum ${files[$atfile]})
if [[ $newcksum != ${cksums[$atfile]} ]]; then
(( failedcount = failedcount + 1 ))
fi
rm -f ${files[$atfile]}
(( atfile = atfile + 1 ))
done

if (( $failedcount > 0 )); then
log_fail "of the $FILE_COUNT files $failedcount did not " \
"have the same checksum before and after."
fi
}

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/scrub_mirror/scrub_mirror_common.kshlib
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xz/usr/include/libzfs/libzfs_core.h

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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zpool_upgrade/zpool_upgrade.cfg

# This part of the test suite relies on variables being setup in the
# zpool_upgrade.cfg script. Those variables give us details about which
# files make up the pool, and what the pool name is.

# A function to import a pool from files we have stored in the test suite
# We import the pool, and create some random data in the pool.
# $1 a version number we can use to get information about the pool
function create_old_pool
{
typeset vers=$1
typeset -n pool_files=ZPOOL_VERSION_${vers}_FILES
typeset -n pool_name=ZPOOL_VERSION_${vers}_NAME

log_note "Creating $pool_name from $pool_files"
for pool_file in $pool_files; do
log_must bzcata \
    $STF_SUITE/tests/functional/cli_root/zpool_upgrade/blockfiles/$pool_file.bz2 \
    >$TEST_BASE_DIR/$pool_file
done
log_must zpool import -d $TEST_BASE_DIR $pool_name

# Put some random contents into the pool
for i in {1..1024} ; do
dd if=/dev/urandom of=/$pool_name/random.$i \
    count=1 bs=1024 > /dev/null 2>&1
done
}

# A function to check the contents of a pool, upgrade it to the current version

```

```

# and then verify that the data is consistent after upgrading. Note that we're
# not using "zpool status -x" to see if the pool is healthy, as it's possible
# to also upgrade faulted, or degraded pools.
# $1 a version number we can use to get information about the pool
function check_upgrade
{
typeset vers=$1
typeset -n pool_files=ZPOOL_VERSION_${vers}_FILES
typeset -n pool_name=ZPOOL_VERSION_${vers}_NAME
typeset pre_upgrade_checksum
typeset post_upgrade_checksum

log_note "Checking if we can upgrade from ZFS version $vers"
pre_upgrade_checksum=$(check_pool $pool_name pre)
log_must zpool upgrade $pool_name
post_upgrade_checksum=$(check_pool $pool_name post)

log_note "Checking that there are no differences between checksum output"
log_must diff $pre_upgrade_checksum $post_upgrade_checksum
rm $pre_upgrade_checksum $post_upgrade_checksum
}

# A function to destroy an upgraded pool, plus the files it was based on.
# $1 a version number we can use to get information about the pool
function destroy_upgraded_pool
{
typeset vers=$1
typeset -n pool_files=ZPOOL_VERSION_${vers}_FILES
typeset -n pool_name=ZPOOL_VERSION_${vers}_NAME

destroy_pool $pool_name

for file in $pool_files; do
rm -f $TEST_BASE_DIR/$file
done
}

# This function does a basic sanity check on the pool by computing the
# checksums of all files in the pool, echoing the name of the file containing
# the checksum results.
# $1 the name of the pool
# $2 a flag we can use to determine when this check is being performed
# (ie. pre or post pool-upgrade)
function check_pool
{
typeset pool=$1
typeset flag=$2
find /$pool -type f -exec cksum {} + > \

```

```

$TEST_BASE_DIR/pool-checksums.$pool.$flag
echo $TEST_BASE_DIR/pool-checksums.$pool.$flag
}

# This function simply checks that a pool has a particular version number
# as reported by zdb and zpool upgrade -v
# $1 the name of the pool
# $2 the version of the pool we expect to see
function check_poolversion
{
typeset pool=$1
typeset vers=$2
typeset actual

# check version using zdb
actual=$(zdb -C $pool | sed -n 's/^.*version: \(.*\)$/1/p')
if [[ $actual != $vers ]] ; then
log_fail "$pool: zdb reported version $actual, expected $vers"
fi

# check version using zpool upgrade
actual=$(zpool upgrade | grep $pool$ | \
awk '{print $1}' | sed -e 's//g')
if [[ $actual != $vers ]] ; then
log_fail "$pool: zpool reported version $actual, expected $vers"
fi
}

# A simple function to get a random number between two bounds
# probably not the most efficient for large ranges, but it's okay.
# Note since we're using $RANDOM, 32767 is the largest number we
# can accept as the upper bound.
# $1 lower bound
# $2 upper bound
function random
{
typeset min=$1
typeset max=$2
typeset rand=0

while [[ $rand -lt $min ]] ; do
rand=$(( $RANDOM % $max + 1))
done

echo $rand
}

```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-  
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_upgrade/zpool_upgrade.kshlib
```

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```
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#
```

```
. $STF_SUITE/include/libtest.shlib
```

```
DEPTH_FS=$TESTPOOL/depth_fs  
MAX_DEPTH=3  
DS_COUNT=3  
set -A depth_options "d 0" "d 1" "d 2" "d 4" "d 32"  
set -A depth_array 0 1 2 4 32
```

```
#  
# Setup multiple depths datasets, including fs, volume and snapshot.  
#  
function depth_fs_setup  
{  
    typeset -i i j k
```


typeset fslist

log_must zfs create \$DEPTH_FS

```
(( i=1 ))
while (( i<=MAX_DEPTH )); do
  if (( i==1 )); then
    fslist=$DEPTH_FS
  else
    (( k=i-1 ))
    fslist=$(zfs list -rH -t filesystem -o name $DEPTH_FS|grep depth"$k"$)
    if (( $? != 0 )); then
      log_fail "No depth$k filesystem"
    fi
  fi
  for fs in $fslist; do
    (( j=1 ))
    while (( j<=DS_COUNT )); do
      log_must zfs create $fs/fs_"$j"_depth"$i"
      if is_global_zone ; then
        log_must zfs create -V 8M $fs/vol_"$j"_depth"$i"
      fi
      log_must zfs snapshot $fs@snap_"$j"_depth"$i"
    (( j=j+1 ))
  done
done
(( i=i+1 ))
done
}
```

#

Cleanup multiple depths filesystem.

#

function depth_fs_cleanup

{

log_must zfs destroy -rR \$DEPTH_FS

}

Found in path(s):

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_list_d.kshlib

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- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/atime/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_replay_volume.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_offline/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_reservation/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/ctime/ctime_001_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_replace/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_program/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/atime/atime_003_pos.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unmount/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_load-key/cleanup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_sysfs/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tarxz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/setup.ksh
- * /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/posix/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_resilver/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_export/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/posix/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_014_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unshare/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_sysfs/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_reservation/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_sync/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unload-key/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_unload-key/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_online/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_clear/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_inherit/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_clone/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_status/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_detach/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_share/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_clear/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/atime/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_attach/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_program/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_inherit/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_upgrade/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/slog/slog_replay_fs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cache/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_change-key/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_mount/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/compression_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-

```
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_rollback/zfs_rollback.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_remove/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_snapshot/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_sync/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_set/cleanup.ksh
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```

```
. $STF_SUITE/include/libtest.shlib
```

```
export TMPDEV=$TEST_BASE_DIR/zpool_upgrade_test.dat
```

```
function cleanup_upgrade
```

```
{
```

```
    datasetexists $TESTPOOL/fs1 && log_must zfs destroy $TESTPOOL/fs1
```

```
datasetexists $TESTPOOL/fs2 && log_must zfs destroy $TESTPOOL/fs2
datasetexists $TESTPOOL/fs3 && log_must zfs destroy $TESTPOOL/fs3
datasetexists $TESTPOOL && log_must zpool destroy $TESTPOOL
}
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/upgrade/upgrade_common.kshlib
```

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```

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xz/usr/include/libzfs/sys/crypto/api.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/libshare.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libspl/sys/list.h
```

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/libuutil_common.h
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--

args = ...

argv = args["argv"]

assert(zfs.sync.snapshot(argv[1] .. "@snap1") == 0)

assert(zfs.sync.destroy(argv[1] .. "@snap1") == 0)

for s in zfs.list.snapshots(argv[1]) do

 assert(false)

end

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/channel_program/synctask_core/tst.snapshot_destroy.zcp

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```

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xz/usr/include/libzfs/sys/uuid.h

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```

```
. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/user_namespace/user_namespace.cfg
```

Found in path(s):

```
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/user_namespace/user_namespace_common.kshlib
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```
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#
```

```
[global]
filename_format=file$jobnum
nrfiles=16
group_reporting=1
fallocate=0
overwrite=0
thread=1
rw=randrw
rwmixread=80
time_based=1
directory=${DIRECTORY}
runtime=${RUNTIME}
bssplit=4k/50:8k/30:128k/10:1m/10
ioengine=psync
sync=${SYNC_TYPE}
direct=${DIRECT}
numjobs=${NUMJOBS}
buffer_compress_percentage=66
buffer_compress_chunk=4096
```

```
[job]
```

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```
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#

function get_conf_section # regex conf

```
{
    typeset dsk_line next_vd_line conf section
    typeset regex="$1"
    typeset conf="$2"

    dsk_line=$(grep -n "$regex" "$conf" | awk -F: '{print $1}')
    if [[ -z "$dsk_line" ]]; then
        return
    fi
    next_vd_line=$(tail -n +$dsk_line "$conf" | \
        grep -n "children\[[" | awk -F: '{print $1}' | head -n 1)

    if [[ -n "$next_vd_line" ]]; then
        section=$(cat "$conf" | sed "1,${dsk_line}d" | head -n \
            $((next_vd_line - 2)))
    else
        section=$(tail -n +$dsk_line "$conf")
    fi
    echo "$section"
}
```

function get_leaf_vd_zap # dsk conf

```
{
    typeset section=$(get_conf_section "$1" "$2")
    echo "$section" | egrep \
        "com.delphix:vdev_zap_leaf: [0-9]+" | awk '{print $2}'
}
```

function get_top_vd_zap # dsk conf

```
{
    typeset section=$(get_conf_section "$1" "$2")
    echo "$section" | egrep \
        "com.delphix:vdev_zap_top: [0-9]+" | awk '{print $2}'
}
```

function assert_has_sentinel # conf

```
{
    res=$(grep "com.delphix:has_per_vdev_zaps" "$1")
    [[ -z "$res" ]] && log_fail "Pool missing ZAP feature sentinel value"
}
```

function assert_zap_common # pool vd lvl zapobj

```
{
```

```

typeset pool=$1
typeset vd="$2"
typeset lvl=$3
typeset zapobj=$4

if [[ -z "$zapobj" ]]; then
    log_fail "$vd on $pool has no $lvl ZAP in config"
elif [[ -z "$(zdb -d $pool $zapobj | grep 'zap')" ]]; then
    log_fail "$vd on $pool has no $lvl ZAP in MOS"
fi
}

function assert_top_zap # pool vd conf
{
    typeset pool=$1
    typeset vd="$2"
    typeset conf=$3

    top_zap=$(get_top_vd_zap "$vd" $conf)
    assert_zap_common $pool "$vd" "top" $top_zap
}

function assert_leaf_zap # pool vd conf
{
    typeset pool=$1
    typeset vd="$2"
    typeset conf=$3

    leaf_zap=$(get_leaf_vd_zap "$vd" $conf)
    assert_zap_common $pool "$vd" "leaf" $leaf_zap
}

#
# Code common to setup/teardown for each test.
#

function cleanup
{
    if datasetexists $TESTPOOL ; then
        log_must zpool destroy -f $TESTPOOL
    fi
    if [[ -e $conf ]]; then
        log_must rm -f "$conf"
    fi
    if [[ -e $POOL2 ]]; then
        log_must zpool destroy -f $POOL2
    fi
}

```

log_onexit cleanup

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```

#

.$STF_SUITE/include/libtest.shlib

#
# According to $elements, $prefix and $separator, the function random produce
# the number of $counter combination.
#
# $1 elements which is used to get the combination.
# $2 prefix is appended to the combination
# $3 separator between the combination, such as ' ' or ','
# $4 counter is the number of combination which you want to get.
#
function gen_option_str # $elements $prefix $separator $counter
{
typeset elements=""
typeset prefix=${2}
typeset separator=${3}
typeset -i counter=${4:-0}
typeset -i i=0
typeset comb_str=""

for e in $1; do
elements[i]="$e"
(( i += 1 ))
done
(( ${#elements[@]} == 0 )) && log_fail "The elements can't be empty."

typeset -i item=0
typeset -i j=0
typeset -i numb_item=0

# Loop and get the specified number combination strings.
i=0
while (( i < counter )); do
j=0
numb_item=0
comb_str=""

# Get random number items for each combinations.
(( numb_item = ($RANDOM % ${#elements[@]} + 1) ))

while (( j < numb_item )); do
# Random select elements from the array
(( item = $RANDOM % ${#elements[@]} ))

if (( ${#comb_str} == 0 )); then
comb_str=${elements[item]}

```

```

else
  comb_str=${comb_str}$separator${elements[item]}
fi
((j += 1 ))
done

echo "$prefix$comb_str"

(( i += 1 ))
done
}

#
# Cleanup the volume snapshot, filesystem snapshot, volume bookmark, and
# filesystem bookmark that were created for this test case.
#
function cleanup
{
  datasetexists $TESTPOOL/$TESTVOL@$TESTSNAP && \
  destroy_snapshot $TESTPOOL/$TESTVOL@$TESTSNAP
  datasetexists $TESTPOOL/$TESTFMS@$TESTSNAP && \
  destroy_snapshot $TESTPOOL/$TESTFMS@$TESTSNAP

  bkmrkexists $TESTPOOL/$TESTVOL#$TESTBKMARK && \
  destroy_bookmark $TESTPOOL/$TESTVOL#$TESTBKMARK
  bkmrkexists $TESTPOOL/$TESTFMS#$TESTBKMARK && \
  destroy_bookmark $TESTPOOL/$TESTFMS#$TESTBKMARK

  [[ -e $TESTFILE0 ]] && log_must rm $TESTFILE0
}

Found in path(s):
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_get/zfs_get_common.kshlib
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```
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xz/usr/include/libzfs/sys/sa_impl.h
```

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xz/usr/include/libzfs/sys/space_reftree.h
```

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```

```
.$STF_SUITE/tests/functional/migration/migration.cfg
```

```
#  
# This function creates the test archive for migration.  
#  
# Usage:  
# prepare srcdir cmd  
#  
# Return value: 0 on success  
# 1 on failure  
#  
# Where:  
# srcdir: is the directory where the testfile is  
# cmd: is the command to be executed.
```

```

# E.g.
# tar cf $TESTDIR/tar$.tar
#
function prepare #srcdir cmd
{
typeset srcdir=$1
typeset cmd=$2
typeset -i retval=0

cwd=$PWD
cd $srcdir
(( $? != 0 )) && return 1

$cmd
(( $? != 0 )) && return 1

cd $cwd
(( $? != 0 )) && return 1

return 0
}

#
# This function executes a passed in command and then determines the chksum
# of the resulting file. The chksum components are checked against the ones
# passed in to determine if they are equal. If they are equal, 0 is returned
# otherwise 1 is returned.
#
# Usage:
# migrate destdir oldsuma oldsumb command_to_execute
#
# Return value: 0 on success
# 1 on failure
#
# Where:
# destdir: is the directory where the command is to be executed on
# oldsuma: is the first part of the values returned by sum
# oldsumb: is the second part of the values returned by sum
# cmd: is the command to be executed;
# E.g.
# "tar xf $TESTDIR/tar$.tar"
#
function migrate #destdir oldsuma oldsumb cmd
{
typeset destdir=$1
typeset oldsuma=$2
typeset oldsumb=$3
typeset cmd=$4

```

```

typeset -i retval=0

cwd=$PWD
cd $destdir
(( $? != 0 )) && return 1

$cmd
(( $? != 0 )) && return 1

sumy=`sum ./$BNAME`
suma=`echo $sumy | awk '{print $1}'`
sumb=`echo $sumy | awk '{print $2}'`

if (( $oldsuma != $suma )); then
    log_note "sum values are not the same"
    retval=1
fi

if (( $oldsumb != $sumb )); then
    log_note "sum values are not the same"
    retval=1
fi

cd $cwd
(( $? != 0 )) && return 1
return $retval
}

function migrate_cpio
{
    typeset destdir=$1
    typeset archive=$2
    typeset oldsuma=$3
    typeset oldsumb=$4
    typeset -i retval=0

    cwd=$PWD
    cd $destdir
    (( $? != 0 )) && return 1

    cpio -iv < $archive
    (( $? != 0 )) && return 1

    sumy=`sum ./$BNAME`
    suma=`echo $sumy | awk '{print $1}'`
    sumb=`echo $sumy | awk '{print $2}'`

    if (( $oldsuma != $suma )); then

```

```

log_note "sum values are not the same"
retval=1
fi

if (( $oldsumb != $sumb )); then
log_note "sum values are not the same"
retval=1
fi

cd $cwd
(( $? != 0 )) && return 1
return $retval
}

```

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xz/usr/share/zfs/zfs-tests/tests/functional/migration/migration.kshlib
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events_cliargs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events_follow.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/zfs_diff_changes.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/truncate/truncate_timestamps.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/zfs_diff_timestamp.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/zfs_diff_types.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/zfs_diff_cliargs.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events_poolname.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/receive-o-x_props_override.ksh

```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_events/zpool_events_clear.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_diff/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_send/zfs_send_sparse.ksh
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xz/usr/include/libzfs/sys/zfs_vfsops.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_destroy/zfs_destroy_003_pos.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_missing_002_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_scrub/zpool_scrub_004_pos.ksh

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create_003_pos.ksh

* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_010_pos.ksh

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_promote/zfs_promote_003_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_create/zfs_create_008_neg.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_receive/zfs_receive_004_neg.ksh
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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_import/zpool_import_missing_003_pos.ksh
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xz/usr/share/zfs/zfs-tests/tests/functional/upgrade/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
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#

.$STF_SUITE/tests/functional/cli_root/zpool_reopen/zpool_reopen.cfg

#
# Clear labels on the given disks
#
function clear_labels #disks
{
for disk in $@; do
if ( is_loop_device $disk ) || ( is_mpath_device $disk ); then
zpool labelclear -f /dev/$disk
else
zpool labelclear -f /dev/${disk}1
fi
done
}

#
# Set the REMOVED_DISK and REMOVED_DISK_ID constants for device
# used for re-plugging. When the disk is loop device use the
# scsi_debug emulated drive. Otherwise use the real drive.
#
function set_removed_disk
{
if is_loop_device $DISK1; then
export REMOVED_DISK=$(get_debug_device)
export REMOVED_DISK_ID=$(get_persistent_disk_name $REMOVED_DISK)
elif ( is_real_device $DISK1 ) || ( is_mpath_device $DISK1 ); then
export REMOVED_DISK="$DISK1"
export REMOVED_DISK_ID=${devs_id[0]}
else
log_fail "No drives that supports removal"
fi
}

#
# Generate random file of the given size in MiB
#
function generate_random_file #path size_mb
{
typeset path=$1
typeset -i size_mb=$2
file_write -o create -f $path -b 1048576 -s0 -c $size_mb -d R
}

```

```

#
# Wait until specific event or timeout occur.
#
# The passed function is executed with pool name as argument
# with an interval of 1 second until it succeeds or until the
# timeout occurs.
# It returns 1 on timeout or 0 otherwise.
#
function wait_for_action #pool timeout function
{
typeset pool=$1
typeset -i timeout=$2
typeset func=$3

while [ $timeout -gt 0 ]; do
(( --timeout ))
if ( $func $pool ); then
return 0
fi
sleep 1
done

return 1
}

#
# Helpers for wait_for_action function:
# wait_for_resilver_start - wait until resilver is started
# wait_for_resilver_end - wait until resilver is finished
# wait_for_scrub_end - wait until scrub is finished
#
function wait_for_resilver_start #pool timeout
{
wait_for_action $1 $2 is_pool_resilvering
return $?
}

function wait_for_resilver_end #pool timeout
{
wait_for_action $1 $2 is_pool_resilvered
return $?
}

function wait_for_scrub_end #pool timeout
{
wait_for_action $1 $2 is_pool_scrubbed
return $?
}

```

```
#
# Check if scan action has been restarted on the given pool
#
```

```
function is_scan_restarted #pool
{
typeset pool=$1
zpool history -i $pool | grep -q "scan aborted, restarting"
return $?
}
```

```
function is_deferred_scan_started #pool
{
typeset pool=$1
zpool history -i $pool | grep -q "starting deferred resilver"
return $?
}
```

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```

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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/zvol/zvol.cfg

#
# Create a simple zvol volume
#
# Where disk_device: is the name of the disk to be used
#   volume_size: is the size of the volume, e.g. 2G
#   block_size: is the block size of the volume
#
function default_zvol_setup # disk_device volume_size block_size
{
typeset disk=$1
typeset size=$2
typeset blocksize=$3
typeset savedumpdev
typeset -i output
typeset create_args

create_pool $TESTPOOL "$disk"

if [ -n "$blocksize" ]; then
create_args="-b $blocksize"
fi

log_must zfs create $create_args -V $size $TESTPOOL/$TESTVOL
block_device_wait
}

#
# Destroy the default zvol which was setup using
# default_zvol_setup().

```



```

#
function default_zvol_cleanup
{
    if datasetexists $TESTPOOL/$TESTVOL ; then
        log_must zfs destroy $TESTPOOL/$TESTVOL
    fi

    destroy_pool $TESTPOOL
}

function get_dumpdevice
{
    typeset ret=$(dumpadm | grep "Dump device:" | awk '{print $3}')
    echo $ret
}

function set_dumpsize
{
    typeset volume=$1

    if [[ -z $volume ]] ; then
        log_note "No volume specified."
        return 1
    fi

    log_must zfs set volsize=64m $volume

    if ! is_linux; then
        output=$(dumpadm -d /dev/zvol/dsk/$volume 2>&1 | \
            tail -1 | awk '{print $3}')

        if [[ -n $output ]]; then
            (( output = output / 1024 / 1024 ))
            (( output = output + output / 5 ))
            log_must zfs set volsize=${output}m $volume
        fi
    fi

    return 0
}

function safe_dumpadm
{
    typeset device=$1

    if [[ -z $device || $device == "none" ]] ; then
        log_note "No dump device volume specified."
        return 1
    fi
}

```

```

fi
if [[ $device == "${ZVOL_DEVDIR}/*" ]]; then
typeset volume=${device#${ZVOL_DEVDIR}/}
set_dumpsizesize $volume
log_must dumpadm -d $device
else
log_must swapadd
if ! is_swap_inuse $device ; then
log_must swap -a $device
fi
log_must dumpadm -d swap
fi
}

function is_zvol_dumpified
{
typeset volume=$1

if [[ -z $volume ]] ; then
log_note "No volume specified."
return 1
fi

zdb -dddd $volume 2 | grep "dumpsizesize" > /dev/null 2>&1
return $?
}

```

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xz/usr/share/zfs/zfs-tests/tests/functional/zvol/zvol_common.shlib
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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/xattr/xattr.cfg

# a function that takes a file, then creates and verifies
# an xattr on that file. The xattr_contents is the file
# that should appear in the xattr namespace.
function create_xattr { # filename xattr_name xattr_contents
typeset FILE=$1
typeset XATTR_NAME=$2
typeset XATTR_CONTENTS=$3

if is_linux; then
log_not attr -q -g $XATTR_NAME $FILE
log_not attr -q -s $XATTR_NAME $FILE < $XATTR_CONTENTS
else
# read any empty xattr on that file
log_not runat $FILE ls
# create the xattr
log_not runat $FILE cp $XATTR_CONTENTS $XATTR_NAME
fi

verify_xattr $FILE $XATTR_NAME $XATTR_CONTENTS
}

# a function that compares the a single xattr between two files
# and checks to see if their contents are identical
function compare_xattrs { # filename1 filename2 xattr_name
typeset FILE1=$1
typeset FILE2=$2
typeset XATTR_NAME=$3

if is_linux; then
attr -q -g $XATTR_NAME $FILE1 > $TEST_BASE_DIR/file1.$$
attr -q -g $XATTR_NAME $FILE2 > $TEST_BASE_DIR/file2.$$

```

```

else
  runat $FILE1 cat $XATTR_NAME > $TEST_BASE_DIR/file1.$$
  runat $FILE2 cat $XATTR_NAME > $TEST_BASE_DIR/file2.$$
fi

log_must diff $TEST_BASE_DIR/file1.$$ $TEST_BASE_DIR/file2.$$
log_must rm $TEST_BASE_DIR/file1.$$ $TEST_BASE_DIR/file2.$$
}

function verify_xattr { # filename xattr_name xattr_contents
typeset FILE=$1
typeset XATTR_NAME=$2
typeset XATTR_CONTENTS=$3

# read the xattr, writing it to a temp file
if is_linux; then
  log_must eval \
    "attr -q -g $XATTR_NAME $FILE > $TEST_BASE_DIR/$XATTR_NAME.$$"
else
  log_must eval \
    "runat $FILE cat $XATTR_NAME > $TEST_BASE_DIR/$XATTR_NAME.$$ 2>&1"
fi

log_must diff $XATTR_CONTENTS $TEST_BASE_DIR/$XATTR_NAME.$$
rm $TEST_BASE_DIR/$XATTR_NAME.$$
}

function delete_xattr { # filename xattr_name
  typeset FILE=$1
  typeset XATTR_NAME=$2

  # delete the xattr
  if is_linux; then
    log_must attr -r $XATTR_NAME $FILE
    log_mustnot attr -q -g $XATTR_NAME $FILE
  else
    log_must runat $FILE rm $XATTR_NAME
    log_mustnot eval "runat $FILE ls $XATTR_NAME > /dev/null 2>&1"
  fi
}

# not sure about this : really this should be testing write/append
function verify_write_xattr { # filename xattr_name
  typeset FILE=$1
  typeset XATTR_NAME=$2

  if is_linux; then
    log_must attr -q -s $XATTR_NAME $FILE < /etc/passwd

```

```

log_must eval \
  "attr -q -g $XATTR_NAME $FILE > $TEST_BASE_DIR/$XATTR_NAME.$$"
else
  log_must eval "runat $FILE dd if=/etc/passwd of=$XATTR_NAME"
  log_must eval \
    "runat $FILE cat $XATTR_NAME > $TEST_BASE_DIR/$XATTR_NAME.$$ 2>&1"
fi
log_must dd if=/etc/passwd of=$TEST_BASE_DIR/passwd_dd.$$
log_must diff $TEST_BASE_DIR/passwd_dd.$$ $TEST_BASE_DIR/$XATTR_NAME.$$
log_must rm $TEST_BASE_DIR/passwd_dd.$$ $TEST_BASE_DIR/$XATTR_NAME.$$
}

# this function is to create the expected output
function create_expected_output { # expected_output_file contents_of_the_output
typeset FILE=$1
shift
if [[ -f $FILE ]]; then
  log_must rm $FILE
fi

for line in @$@
do
  log_must eval "echo $line >> $FILE"
done
}

```

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#if [[ -w /dev/zfs ]]; then
  __ZFS_CMD="zfs"
  __ZPOOL_CMD="zpool"
#else
  # __ZFS_CMD="sudo zfs"
  # __ZPOOL_CMD="sudo zpool"
#fi

__zfs_get_commands()
{
  $__ZFS_CMD 2>&1 | awk '/^[a-z]/ {print $1}' | cut -f1 -d '|' | uniq
}

__zfs_get_properties()
{
  $__ZFS_CMD get 2>&1 | awk '$2 == "YES" || $2 == "NO" {print $1}'; echo all name space
}

__zfs_get_editable_properties()
{
  $__ZFS_CMD get 2>&1 | awk '$2 == "YES" {print $1}='
}

__zfs_get_inheritable_properties()
{
  $__ZFS_CMD get 2>&1 | awk '$3 == "YES" {print $1}'
}

__zfs_list_datasets()
{

```

```

    $__ZFS_CMD list -H -o name -t filesystem,volume
}

__zfs_list_filesystems()
{
    $__ZFS_CMD list -H -o name -t filesystem
}

__zfs_match_snapshot()
{
    local base_dataset=${cur%@*}
    if [[ $base_dataset != $cur ]]
    then
        $__ZFS_CMD list -H -o name -t snapshot -d 1 $base_dataset
    else
        $__ZFS_CMD list -H -o name -t filesystem,volume | awk '{print $1"@"}'
    fi
}

__zfs_match_explicit_snapshot()
{
    local base_dataset=${cur%@*}
    if [[ $base_dataset != $cur ]]
    then
        $__ZFS_CMD list -H -o name -t snapshot -d 1 $base_dataset
    fi
}

__zfs_match_multiple_snapshots()
{
    local existing_opts=$(expr "$cur" : '\(.*\)[%,,]')
    if [[ $existing_opts ]]
    then
        local base_dataset=${cur%@*}
        if [[ $base_dataset != $cur ]]
        then
            local cur=${cur##*,}
            if [[ $cur =~ ^%|%.|%* ]]
            then
                # correct range syntax is start%end
                return 1
            fi
            local range_start=$(expr "$cur" : '\(.%*\)\')
            $__ZFS_CMD list -H -o name -t snapshot -d 1 $base_dataset | sed 's$.*@$range_start$g'
        fi
    else
        __zfs_match_explicit_snapshot; __zfs_list_datasets
    fi
}

```

```

}

__zfs_list_volumes()
{
    $__ZFS_CMD list -H -o name -t volume
}

__zfs_argument_chosen()
{
    local word property
    for word in $(seq $((COMP_CWORD-1)) -1 2)
    do
        local prev="${COMP_WORDS[$word]}"
        if [[ ${COMP_WORDS[$word-1]} != -[tos] ]]
        then
            if [[ "$prev" == [^,]*,* ]] || [[ "$prev" == *[@:]* ]]
            then
                return 0
            fi
            for property in @$@
            do
                if [[ $prev == "$property" ]]
                then
                    return 0
                fi
            done
        fi
    done
    return 1
}

__zfs_complete_ordered_arguments()
{
    local list1=$1
    local list2=$2
    local cur=$3
    local extra=$4
    if __zfs_argument_chosen $list1
    then
        COMPREPLY=$(compgen -W "$list2 $extra" -- "$cur")
    else
        COMPREPLY=$(compgen -W "$list1 $extra" -- "$cur")
    fi
}

__zfs_complete_multiple_options()
{
    local options=$1

```



```

local cur=$2

COMPREPLY=$(compgen -W "$options" -- "${cur##*,}")
local existing_opts=$(expr "$cur" : \"(.*,)\")
if [[ $existing_opts ]]
then
    COMPREPLY=( "${COMPREPLY[@]/#/${existing_opts}}")
fi
}

__zfs_complete_switch()
{
    local options=$1
    if [[ ${cur:0:1} == - ]]
    then
        COMPREPLY=$(compgen -W "-{ $options}" -- "$cur")
        return 0
    else
        return 1
    fi
}

__zfs_complete()
{
    local cur prev cmd cmds
    COMPREPLY=()
    # Don't split on colon
    _get_comp_words_by_ref -n : -c cur -p prev -w COMP_WORDS -i COMP_CWORD
    cmd="${COMP_WORDS[1]}"

    if [[ ${prev##*/} == zfs ]]
    then
        cmds=$(__zfs_get_commands)
        COMPREPLY=$(compgen -W "$cmds -?" -- "$cur")
        return 0
    fi

    case "${cmd}" in
        clone)
            case "${prev}" in
                -o)
                    COMPREPLY=$(compgen -W "$(__zfs_get_editable_properties)" -- "$cur")
                    ;;
                *)
                    if ! __zfs_complete_switch "o,p"
                    then
                        if __zfs_argument_chosen
                        then

```

```

        COMPREPLY=$(compgen -W "$(__zfs_list_datasets)" -- "$cur")
    else
        COMPREPLY=$(compgen -W "$(__zfs_match_snapshot)" -- "$cur")
    fi
fi
;;
esac
;;
get)
case "${prev}" in
    -d)
        COMPREPLY=$(compgen -W "" -- "$cur")
        ;;
    -t)
        __zfs_complete_multiple_options "filesystem volume snapshot all" "$cur"
        ;;
    -s)
        __zfs_complete_multiple_options "local default inherited temporary none" "$cur"
        ;;
    -o)
        __zfs_complete_multiple_options "name property value source received all" "$cur"
        ;;
    *)
        if ! __zfs_complete_switch "H,r,p,d,o,t,s"
        then
            if __zfs_argument_chosen "$(__zfs_get_properties)"
            then
                COMPREPLY=$(compgen -W "$(__zfs_match_explicit_snapshot) $(__zfs_list_datasets)" --
"$cur"))
            else
                __zfs_complete_multiple_options "$(__zfs_get_properties)" "$cur"
            fi
        fi
        ;;
esac
;;
inherit)
if ! __zfs_complete_switch "r"
then
    __zfs_complete_ordered_arguments "$(__zfs_get_inheritable_properties)"
"$(__zfs_match_explicit_snapshot) $(__zfs_list_datasets)" $cur
fi
;;
list)
case "${prev}" in
    -d)
        COMPREPLY=$(compgen -W "" -- "$cur")
        ;;

```

```

-t)
    __zfs_complete_multiple_options "filesystem volume snapshot all" "$cur"
    ;;
-o)
    __zfs_complete_multiple_options "$(__zfs_get_properties)" "$cur"
    ;;
-s|-S)
    COMPREPLY=$(compgen -W "$(__zfs_get_properties)" -- "$cur")
    ;;
*)
    if ! __zfs_complete_switch "H,r,d,o,t,s,S"
    then
        COMPREPLY=$(compgen -W "$(__zfs_match_explicit_snapshot) $(__zfs_list_datasets)" --
"$cur")
    fi
    ;;
esac
promote)
    COMPREPLY=$(compgen -W "$(__zfs_list_filesystems)" -- "$cur")
    ;;
rollback)
    if ! __zfs_complete_switch "r,R,f"
    then
        COMPREPLY=$(compgen -W "$(__zfs_match_snapshot)" -- "$cur")
    fi
    ;;
send)
    if ! __zfs_complete_switch "d,n,P,p,R,v,i,I"
    then
        COMPREPLY=$(compgen -W "$(__zfs_match_snapshot)" -- "$cur")
    fi
    ;;
snapshot)
    case "${prev}" in
    -o)
        COMPREPLY=$(compgen -W "$(__zfs_get_editable_properties)" -- "$cur")
        ;;
    *)
        if ! __zfs_complete_switch "o,r"
        then
            COMPREPLY=$(compgen -W "$(__zfs_list_datasets | awk '{print $1"@"}')" -- "$cur")
        fi
        ;;
    esac
    ;;
set)
    __zfs_complete_ordered_arguments "$(__zfs_get_editable_properties)" "$(__zfs_match_explicit_snapshot)

```

```

$(__zfs_list_datasets)" $cur
;;
upgrade)
case "${prev}" in
-a|-V|-v)
    COMPREPLY=$(compgen -W "" -- "$cur")
    ;;
*)
    if ! __zfs_complete_switch "a,V,v,r"
    then
        COMPREPLY=$(compgen -W "$(__zfs_list_filesystems)" -- "$cur")
    fi
    ;;
esac
;;
destroy)
if ! __zfs_complete_switch "d,f,n,p,R,r,v"
then
    __zfs_complete_multiple_options "$(__zfs_match_multiple_snapshots)" $cur
fi
;;
*)
    COMPREPLY=$(compgen -W "$(__zfs_match_explicit_snapshot) $($__zfs_list_datasets)" -- "$cur")
    ;;
esac
__ltrim_colon_completions "$cur"
return 0
}

__zpool_get_commands()
{
    $__ZPOOL_CMD 2>&1 | awk '/^[a-z]/ {print $1}' | uniq
}

__zpool_get_properties()
{
    $__ZPOOL_CMD get 2>&1 | awk '$2 == "YES" || $2 == "NO" {print $1}'; echo all
}

__zpool_get_editable_properties()
{
    $__ZPOOL_CMD get 2>&1 | awk '$2 == "YES" {print $1 "="}'
}

__zpool_list_pools()
{
    $__ZPOOL_CMD list -H -o name
}

```

```

__zpool_complete()
{
    local cur prev cmd cmds
    COMPREPLY=()
    cur="${COMP_WORDS[COMP_CWORD]}"
    prev="${COMP_WORDS[COMP_CWORD-1]}"
    cmd="${COMP_WORDS[1]}"

    if [[ ${prev##*/} == zpool ]]
    then
        cmds=$(__zpool_get_commands)
        COMPREPLY=$(compgen -W "$cmds" -- "$cur")
        return 0
    fi

    case "${cmd}" in
        get)
            __zfs_complete_ordered_arguments "$(__zpool_get_properties)" "$(__zpool_list_pools)" $cur
            return 0
            ;;
        import)
            if [[ $prev == -d ]]
            then
                _filedir -d
            else
                COMPREPLY=$(compgen -W "$(__zpool_list_pools) -d" -- "$cur")
            fi
            return 0
            ;;
        set)
            __zfs_complete_ordered_arguments "$(__zpool_get_editable_properties)" "$(__zpool_list_pools)" $cur
            return 0
            ;;
        add|attach|clear|create|detach|offline|online|remove|replace)
            local pools="$(__zpool_list_pools)"
            if __zfs_argument_chosen $pools
            then
                _filedir
            else
                COMPREPLY=$(compgen -W "$pools" -- "$cur")
            fi
            return 0
            ;;
        *)
            COMPREPLY=$(compgen -W "$(__zpool_list_pools)" -- "$cur")
            return 0
            ;;
    esac
}

```

```

    esac

}

complete -F __zfs_complete zfs
complete -F __zpool_complete zpool

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* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/bash-completion/completions/zfs
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#

```

```

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#

. $STF_SUITE/include/libtest.shlib

#
# A function that verifies sort order. It takes as input
# a command, which gets executed. We then iterate over the results
# comparing that the sort order passed in via the list
#
function verify_sort { # command list name

# now verify we've sorted by creation date:
typeset CMD=$1
typeset list=$2
typeset name=$3

typeset -i RET=0
typeset -i index=1

# run the command to verify that it works
log_must eval "$CMD > /dev/null"

# Now check the sort order
for dataset in $( $CMD )
do
ACTUAL=$(basename $dataset)
if [ "$dataset" != "$TESTPOOL/$TESTFS" ]
then
EXPECTED=$(echo $list | awk "{print \$$index}")
if [ "$ACTUAL" != "$EXPECTED" ]
then
log_note "WARNING:" \
"$ACTUAL' does not equal '$EXPECTED'"
log_fail "ERROR: Sort by $name fails."
fi

((index = index + 1))
fi
done

# finally check to see if we have the expected number of elements
if [ $index -ne $(echo $list | awk '{print split($0,arr)+1}') ]
then
log_fail "Warning: " \
"unexpected number of filesystems found in list output!"
fi
}

```

```

# A function that verifies reverse sort order. It takes as input
# a command, which gets executed. We then iterate over the results
# comparing that the sort order passed in via the list
#
function verify_reverse_sort { # command list name

typeset CMD=$1
typeset list=$2
typeset name=$3

# set our index to the be number of elements in the list
typeset -i index=$(echo $list | awk '{print split($0,arr)}')

log_note "Checking reverse sort by '$name'," \
"expecting the reverse of '$list'"
log_must eval "$CMD > /dev/null"

for dataset in $( $CMD )
do
ACTUAL=$(basename $dataset)
if [ "$dataset" != "$TESTPOOL/$TESTFS" ]
then
EXPECTED=$(echo $list | awk "{print \$$index}")
if [ "$ACTUAL" != "$EXPECTED" ]
then
log_note "Warning:" \
"$ACTUAL' does not equal to" \
"the reverse of '$EXPECTED'"
log_fail "ERROR: Reverse sort by '$name' fails."
fi

((index = index - 1))
fi
done

# finally check to see if we have the expected number of elements
if [ $index -ne 0 ]
then
log_fail "Warning: " \
"unexpected number of filesystems found in list output!"
fi
}

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_user/zfs_list/zfs_list.kshlib

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#

. $STF_SUITE/include/libtest.shlib
. $STF_SUITE/tests/functional/cli_root/zfs_copies/zfs_copies.cfg

#
# Compare the value of copies property with specified value
# $1, the dataset name
# $2, the expected copies value
#
function cmp_prop
{
typeset ds=$1
typeset val_expect=$2
typeset val_actual

val_actual=$(get_prop copies $ds)
if [[ $val_actual != $val_expect ]]; then
```

```

log_fail "Expected value ($val_expect) != actual value " \
        "($val_actual)"
fi
}

#
# Get the value of property used via zfs list
# $1, the dataset name
#
function get_used_prop
{
typeset ds=$1
typeset used

used=`zfs list -H -p -o used $ds`
echo $used
}

#
# Check the used space is charged correctly
# $1, the number of used space
# $2, the expected common factor between the used space and the file space
#
function check_used
{
typeset charged_spc=$1
typeset -i used
typeset -i expected_cfactor=$2
typeset -i cfactor
typeset -i fsize=${FILESIZE%[m|M]}

((used = $charged_spc / 1024 / 1024))
((cfactor = used / fsize))
if ((cfactor != expected_cfactor)); then
log_fail "The space is not charged correctly while setting" \
        "copies as $expected_cfactor."
fi
}

#
# test ncopies on volume
# $1 test type zfs|ufs, default zfs
# $2 copies
# $3 mntp for ufs test
function do_vol_test
{
typeset type=$1
typeset copy=$2

```

```

typeset mntp=$3

vol=$TESTPOOL/$TESTVOL1
vol_b_path=$ZVOL_DEVDIR/$TESTPOOL/$TESTVOL1
vol_r_path=$ZVOL_RDEVDIR/$TESTPOOL/$TESTVOL1

log_must zfs create -V $VOLSIZE -o copies=$copy $vol
log_must zfs set refreservation=none $vol
block_device_wait

if [[ $type == "ufs" ]]; then
    log_must echo y | newfs $vol_r_path >/dev/null 2>&1
    log_must mount -F ufs -o rw $vol_b_path $mntp
elif [[ $type == "ext2" ]]; then
    log_must echo y | newfs $vol_r_path >/dev/null 2>&1
    log_must mount -o rw $vol_b_path $mntp
else
    log_must zpool create $TESTPOOL1 $vol_b_path
    log_must zfs create $TESTPOOL1/$TESTFS1
fi

((nfilesize = copy * ${FILESIZE%m}))
pre_used=$(get_used_prop $vol)
((target_size = pre_used + nfilesize))

if [[ $type == "ufs" ]]; then
    log_must mkfile $FILESIZE $mntp/$FILE
elif [[ $type == "ext2" ]]; then
    log_must mkfile $FILESIZE $mntp/$FILE
else
    log_must mkfile $FILESIZE /$TESTPOOL1/$TESTFS1/$FILE
fi

post_used=$(get_used_prop $vol)
while ((post_used < target_size)) ; do
    sleep 1
    post_used=$(get_used_prop $vol)
done

((used = post_used - pre_used))
if ((used < nfilesize)); then
    log_fail "The space is not charged correctly while setting" \
        "copies as $copy"
fi

if [[ $type == "ufs" ]]; then
    umount $mntp
elif [[ $type == "ext2" ]]; then

```

```
    umount $mntp
else
    log_must zpool destroy $TESTPOOL1
fi
```

```
log_must zfs destroy $vol
}
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_copies/zfs_copies.kshlib
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_create/zpool_create.cfg
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_add/zpool_add.cfg
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xz/usr/include/libzfs/sys/zio_checksum.h
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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zfs_set/checksum_001_pos.ksh
```

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xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/setup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/posix/posix_001_pos.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/cli_root/zpool_get/cleanup.ksh
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/share/zfs/zfs-tests/tests/functional/acl/posix/posix_002_pos.ksh
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xz/usr/include/libzfs/sys/zcp_global.h
* /opt/cola/permits/1667738720_1683912559.0630028/0/zfs-utils-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-
xz/usr/include/libzfs/sys/zcp_prop.h
```

1.26 nats 0.8.4

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1.27 htop 2.2.0 2

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under certain conditions; type `show c' for details.
```

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```

```
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Ty Coon, President of Vice
```

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```

Found in path(s):

```
* /opt/cola/permits/1665667786_1683910693.7212822/0/shaderc-2019-0-1-x86-64-pkg-tar-  
xz/usr/include/shaderc/shaderc.hpp  
* /opt/cola/permits/1665667786_1683910693.7212822/0/shaderc-2019-0-1-x86-64-pkg-tar-  
xz/usr/include/shaderc/shaderc.h
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```

Found in path(s):

```
* /opt/cola/permits/1665667786_1683910693.7212822/0/shaderc-2019-0-1-x86-64-pkg-tar-  
xz/usr/include/shaderc/status.h  
* /opt/cola/permits/1665667786_1683910693.7212822/0/shaderc-2019-0-1-x86-64-pkg-tar-  
xz/usr/include/shaderc/env.h  
* /opt/cola/permits/1665667786_1683910693.7212822/0/shaderc-2019-0-1-x86-64-pkg-tar-  
xz/usr/include/shaderc/visibility.h
```

1.29 ifplugd 0.28 15

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```
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```

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```
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```

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1.30 x-crypto 0.4.0

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1.31 xfsprogs 4.20.0

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1.33 libcap-ng 0.7.9-1

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1.34 x-sys 0.2.0

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1.38 argon2 20190702

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Argon2 reference source code package - reference C implementations

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1.40 icu 64

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3. Lao Word Break Dictionary Data (laodict.txt)

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```
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#
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# License: http://lao-dictionary.googlecode.com/git/Lao-Dictionary-LICENSE.txt
#       (copied below)
#
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# -----
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# -----
```

4. Burmese Word Break Dictionary Data (burmesedict.txt)

```
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#
# This list is part of a project hosted at:
#   github.com/kanyawtech/myanmar-karen-word-lists
#
# -----
```

```
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# -----
```

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```
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```
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```
## -*-makefile-*-
```

```
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```

```
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```

```
## BSD-specific setup (FreeBSD, OpenBSD, NetBSD, *BSD)
```

```
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```

```
## others. All Rights Reserved.
```

```
## Commands to generate dependency files
```

```
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
```

```
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)
```

```
## Flags for position independent code
```

```
SHAREDLIBCFLAGS = -fPIC
```

```
SHAREDLIBCXXFLAGS = -fPIC
```

SHAREDLIBCPPFLAGS = -DPIC

Additional flags when building libraries and with threads

THREADSCPPFLAGS = -D_REENTRANT

LIBCPPFLAGS =

Compiler switch to embed a runtime search path

LD_RPATH=

LD_RPATH_PRE= -Wl,-rpath,

Compiler switch to embed a library name

LD_SONAME = -Wl,-soname -Wl,\$(notdir \$(MIDDLE_SO_TARGET))

Shared library options

LD_SOOPTIONS= -Wl,-Bsymbolic

Shared object suffix

SO = so

Non-shared intermediate object suffix

STATIC_O = ao

Compilation rules

%. \$(STATIC_O): \$(srcdir)/%.c

\$(COMPILE.c) \$(STATICCPPFLAGS) \$(STATICCFLAGS) -o \$@ \$<

%.o: \$(srcdir)/%.c

\$(COMPILE.c) \$(DYNAMICCPPFLAGS) \$(DYNAMICCFLAGS) -o \$@ \$<

%. \$(STATIC_O): \$(srcdir)/%.cpp

\$(COMPILE.cc) \$(STATICCPPFLAGS) \$(STATICCXXFLAGS) -o \$@ \$<

%.o: \$(srcdir)/%.cpp

\$(COMPILE.cc) \$(DYNAMICCPPFLAGS) \$(DYNAMICCXXFLAGS) -o \$@ \$<

Dependency rules

%.d: \$(srcdir)/%.c

@echo "generating dependency information for \$<"

@\$(SHELL) -ec '\$(GEN_DEPS.c) \$< \

| sed "s^\(\$*\)\.o[:]*^1.o \$@ :/g\" > \$@; \

[-s \$@] || rm -f \$@'

%.d: \$(srcdir)/%.cpp

@echo "generating dependency information for \$<"

@\$(SHELL) -ec '\$(GEN_DEPS.cc) \$< \

| sed "s^\(\$*\)\.o[:]*^1.o \$@ :/g\" > \$@; \

[-s \$@] || rm -f \$@'

Versioned libraries rules


```
%. $(SO).$(SO_TARGET_VERSION_MAJOR): %. $(SO).$(SO_TARGET_VERSION)
$(RM) $@ && ln -s ${<F} $@
%. $(SO): %. $(SO).$(SO_TARGET_VERSION_MAJOR)
$(RM) $@ && ln -s ${*F}. $(SO).$(SO_TARGET_VERSION) $@

## Bind internal references

# LDflags that pkgdata will use
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

## Remove shared library 's'
STATIC_PREFIX_WHEN_USED =
STATIC_PREFIX =

## End BSD-specific setup
```

1.41 prometheus-client 0.3.0

1.41.1 Available under license :

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1.42 x265 3.1.2

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A "covered work" means either the unmodified Program or a work based on the Program.

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The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

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The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to

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```
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1.47 procps 3.3.15-1

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Because of this blurred distinction, using the ordinary General

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1.48 x264 157.r72db4377

1.48.1 Available under license :

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```
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*  
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*/
```

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Found in path(s):

* /opt/cola/permits/1673656257_1684174284.7771885/0/x264-2-157-r72db4377-1-x86-64-pkg-tar-xz/usr/include/x264.h

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/opt/cola/permits/1673656257_1684174284.7771885/0/x264-2-157-r72db4377-1-x86-64-pkg-tar-xz/usr/bin/x264:
binary file matches

Found in path(s):

* /bin/grep

1.49 editline 1.17.1

1.49.1 Available under license :

Format: <http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/>

Upstream-Name: editline

Upstream-Contact: Joachim Nilsson <troglobit@gmail.com>

Source: <http://github.com/troglobit/editline>

Comment: This package was originally debianized by Jim Studt <jim@federated.com>
on Fri, 5 May 2000 13:25:51 -0500. It was received from, then upstream
author, Rich Salz <rsalz@shore.net>

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1.51 nmtree 0.srchash.f75a902dd3d0-1

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1.52 libxkbfile 1.1.0-1

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1.53 tcpdump 4.9.3

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1.54 libyaml 0.2.2

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1.55 open-ldap 2.4.47-3

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1.57 x-sync 0.0.0-20201207232520-09787c993a3a

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1.58 nettle 3.8.1

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```
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```
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```

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```
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`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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1.61 dav1d 0.4.0

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1.63 libxfont 2.0.3-1

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/* lib/font/fontfile/gunzip.c

written by Mark Eichin <eichin@kitten.gen.ma.us> September 1996.

intended for inclusion in X11 public releases. */

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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

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1.65 python-pip 20.1.1

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

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Release	Derived from	Year	Owner	GPL-compatible? (1)
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1.1	2010	PSF	yes
3.1.3	3.1.2	2010	PSF	yes
3.1.4	3.1.3	2011	PSF	yes
3.2	3.1	2011	PSF	yes
3.2.1	3.2	2011	PSF	yes
3.2.2	3.2.1	2011	PSF	yes
3.3	3.2	2012	PSF	yes

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no

2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
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2.1.3	2.1.2	2002	PSF	yes
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2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes

3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#

This is a bundle of X.509 certificates of public Certificate Authorities (CA). These were automatically extracted from Mozilla's root certificates file (certdata.txt). This file can be found in the mozilla source tree:

<http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#>

It contains the certificates in PEM format and therefore can be directly used with curl / libcurl / php_curl, or with an Apache+mod_ssl webserver for SSL client authentication.

Just configure this file as the SSLCACertificateFile.#

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1.66 gdisk 1.0.9

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1.67 libfontenc 1.1.4-1

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1.68 libxpm 3.5.12 2

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1.69 soxr 0.1.3

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1.70 which 2.21-3

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/opt/cola/permits/1667556257_1683913974.5066926/0/which-2-21-3-x86-64-pkg-tar-xz/usr/bin/which: binary file matches

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Found in path(s):

* /bin/grep

1.71 libxtst 1.2.3 2

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1.72 libcap 2.27

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1.73 serializer 1.6.1 2

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1.75 protoc-gen-validate 0.9.1

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1.76 tigervnc 1.9.0

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1.77 libxcb 1.13.1 1

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1.78 opencore-amr 0.1.5 2

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* snprintf.c - a portable implementation of snprintf

*

* AUTHOR

* Mark Martinec <mark.martinec@ijs.si>, April 1999.

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analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java
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<link crossorigin="anonymous" href="https://assets-cdn.github.com/assets/frameworks-
2d2d4c150f7000385741c6b992b302689ecd172246c6428904e0813be9bceca6.css" media="all" rel="stylesheet" />
<link crossorigin="anonymous" href="https://assets-cdn.github.com/assets/github-
0522ae8d3b3bdc841d2f91f90efd5f1fd9040d910905674cd134ced43a6dfea6.css" media="all" rel="stylesheet" />

<link crossorigin="anonymous" href="https://assets-cdn.github.com/assets/site-
cfab053e93f0e27f4c63d4ff6b7957bd25f711667fe678e747f8a4d88c47b38d.css" media="all" rel="stylesheet" />

<meta name="viewport" content="width=device-width">

<title>cryptacular/NOTICE at master · vt-middleware/cryptacular · GitHub</title>
<link rel="search" type="application/opensearchdescription+xml" href="/opensearch.xml" title="GitHub">
<link rel="fluid-icon" href="https://github.com/fluidicon.png" title="GitHub">
<meta property="fb:app_id" content="1401488693436528">

<meta content="https://avatars7.githubusercontent.com/u/6122907?v=4&s=400" property="og:image"
/><meta content="GitHub" property="og:site_name" /><meta content="object" property="og:type" /><meta
content="vt-middleware/cryptacular" property="og:title" /><meta content="https://github.com/vt-
middleware/cryptacular" property="og:url" /><meta content="cryptacular - The friendly complement to the
BouncyCastle crypto API for Java." property="og:description" />

<link rel="assets" href="https://assets-cdn.github.com/">

<meta name="pjax-timeout" content="1000">

<meta name="request-id" content="E0E4:26F16:12A5AE6:1D11801:596C7978" data-pjax-transient>

<meta name="selected-link" value="repo_source" data-pjax-transient>

<meta name="google-site-verification" content="KT5gs8h0wvaagLKA VWq8bbeNwnZZK1r1XQysX3xurLU">
<meta name="google-site-verification" content="ZzhVyEFwb7w3e0-uOTlrm8Jsck2F5StVihD0exw2fsA">
<meta name="google-analytics" content="UA-3769691-2">

<meta content="collector.githubapp.com" name="octolytics-host" /><meta content="github" name="octolytics-app-
```

```
id" /><meta content="https://collector.githubapp.com/github-external/browser_event" name="octolytics-event-url" /><meta content="E0E4:26F16:12A5AE6:1D11801:596C7978" name="octolytics-dimension-request_id" /><meta content="sea" name="octolytics-dimension-region_edge" /><meta content="iad" name="octolytics-dimension-region_render" /><meta content="/&lt;user-name&gt;/&lt;repo-name&gt;/blob/show" data-pjax-transient="true" name="analytics-location" />
```

```
<meta class="js-ga-set" name="dimension1" content="Logged Out">
```

```
<meta name="hostname" content="github.com">
<meta name="user-login" content="">
```

```
<meta name="expected-hostname" content="github.com">
<meta name="js-proxy-site-detection-payload"
content="N2ZhMjk0NTA4MjI1NmZhYTVINzM5NzVjZmFkOWY2NGFkNmMxYzcyMGViNzAzZGQxMGMzZmJhZDQ3YWZiZTI0OHx7InJlbW90ZV9hZGRyZXNzIjoiMTEwLjIwLjIyMC4xMzUiLCJyZXFiZXN0X2lkIjoIRTBFNDoYnkYxNjoxMkE1QUU2OjFEMTE4MDE6NTk2Qzc5NzgiLCJ0aW1lc3RhbnXAiOjE1MDAyODEyMDgsImhvc3QiOiJnaXRodWIuY29tIn0=">
```

```
<meta name="html-safe-nonce" content="5aa226b80a18dc40894e1d405e4eb31cfca7d616">
```

```
<meta http-equiv="x-pjax-version" content="f682644ce1bb9629b9d9d9bedf64801b">
```

```
<link href="https://github.com/vt-middleware/cryptacular/commits/master.atom" rel="alternate" title="Recent Commits to cryptacular:master" type="application/atom+xml">
```

```
<meta name="description" content="cryptacular - The friendly complement to the BouncyCastle crypto API for Java.">
```

```
<meta name="go-import" content="github.com/vt-middleware/cryptacular git https://github.com/vt-middleware/cryptacular.git">
```

```
<meta content="6122907" name="octolytics-dimension-user_id" /><meta content="vt-middleware" name="octolytics-dimension-user_login" /><meta content="15714989" name="octolytics-dimension-repository_id" /><meta content="vt-middleware/cryptacular" name="octolytics-dimension-repository_nwo" /><meta content="true" name="octolytics-dimension-repository_public" /><meta content="false" name="octolytics-dimension-repository_is_fork" /><meta content="15714989" name="octolytics-dimension-repository_network_root_id" /><meta content="vt-middleware/cryptacular" name="octolytics-dimension-repository_network_root_nwo" /><meta content="false" name="octolytics-dimension-repository_explore_github_marketplace_ci_cta_shown" />
```

```
<link rel="canonical" href="https://github.com/vt-middlewre/cryptacular/blob/master/NOTICE" data-pjax-
transient>

<meta name="browser-stats-url" content="https://api.github.com/_private/browser/stats">

<meta name="browser-errors-url" content="https://api.github.com/_private/browser/errors">

<link rel="mask-icon" href="https://assets-cdn.github.com/pinned-octocat.svg" color="#000000">
<link rel="icon" type="image/x-icon" href="https://assets-cdn.github.com/favicon.ico">

<meta name="theme-color" content="#1e2327">

</head>

<body class="logged-out env-production page-blob">

<div class="position-relative js-header-wrapper ">
  <a href="#start-of-content" tabindex="1" class="px-2 py-4 show-on-focus js-skip-to-content">Skip to content</a>
  <div id="js-pjax-loader-bar" class="pjax-loader-bar"><div class="progress"></div></div>

  <header class="site-header js-details-container Details" role="banner">
    <div class="site-nav-container">
      <a class="header-logo-invertocat" href="https://github.com/" aria-label="Homepage" data-ga-click="(Logged out)
Header, go to homepage, icon:logo-wordmark">
        <svg aria-hidden="true" class="octicon octicon-mark-github" height="32" version="1.1" viewBox="0 0 16 16"
width="32"><path fill-rule="evenodd" d="M8 0C3.58 0 0 3.58 0 8c0 3.54 2.29 6.53 5.47 7.59.4.07.55-.17.55-.38
0-.19-.01-.82-.01-1.49-.01-2.01-.37-2.53-.49-2.69-.94-.09-.23-.48-.94-.82-1.13-.28-.15-.68-.52-.01-.53.63-.01
1.08.58 1.23.82.72 1.21 1.87.87 2.33.66.07-.52.28-.87.51-1.07-1.78-.2-3.64-.89-3.64-3.95 0-.87.31-1.59.82-2.15-.08-.2-.36-
1.02.08-2.12 0 0-.67-.21 2.28.64-.18 1.32-.27 2-.27.68 0 1.36.09 2.27 1.53-1.04 2.2-.82 2.2-.82.44 1.1.16 1.92.08
2.12.51.56.82 1.27.82 2.15 0 3.07-1.87 3.75-3.65 3.95.29.25.54.73.54 1.48 0 1.07-.01 1.93-.01 2.2 0
.21.15.46.55.38.82.01 3.01 0 0 16 8c0-4.42-3.58-8-8z"/></svg>
      </a>

      <button class="btn-link float-right site-header-toggle js-details-target" type="button" aria-label="Toggle
navigation" aria-expanded="false">
```

```
<svg aria-hidden="true" class="octicon octicon-three-bars" height="24" version="1.1" viewBox="0 0 12 16"
width="18"><path fill-rule="evenodd" d="M11.41 9H.59C0 9 0 8.59 0 8c0-.59 0-1 .59-1H11.4c.59 0 .59.41.59 1 0
.59 0 1-.59 1h.01zm0-4H.59C0 5 0 4.59 0 4c0-.59 0-1 .59-1H11.4c.59 0 .59.41.59 1 0 .59 0 1-.59 1h.01zM.59
11H11.4c.59 0 .59.41.59 1 0 .59 0 1-.59 1H.59C0 13 0 12.59 0 12c0-.59 0-1 .59-1z"/></svg>
</button>
```

```
<div class="site-header-menu">
  <nav class="site-header-nav">
    <a href="/features" class="js-selected-navigation-item nav-item" data-ga-click="Header, click, Nav menu -
item:features" data-selected-links="/features /features/code-review /features/project-management
/features/integrations /features">
      Features
    </a>
    <a href="/business" class="js-selected-navigation-item nav-item" data-ga-click="Header, click, Nav menu -
item:business" data-selected-links="/business /business/security /business/customers /business">
      Business
    </a>
    <a href="/explore" class="js-selected-navigation-item nav-item" data-ga-click="Header, click, Nav menu -
item:explore" data-selected-links="/explore /trending /trending/developers /stars /integrations
/integrations/feature/code /integrations/feature/collaborate /integrations/feature/ship showcases showcases_search
showcases_landing /explore">
      Explore
    </a>
    <a href="/marketplace" class="js-selected-navigation-item nav-item" data-ga-click="Header, click, Nav
menu - item:marketplace" data-selected-links="/marketplace">
      Marketplace
    </a>
    <a href="/pricing" class="js-selected-navigation-item nav-item" data-ga-click="Header, click, Nav menu -
item:pricing" data-selected-links="/pricing /pricing/developer /pricing/team /pricing/business-hosted
/pricing/business-enterprise /pricing">
      Pricing
    </a>
  </nav>
```

```
<div class="site-header-actions">
  <div class="header-search scoped-search site-scoped-search js-site-search" role="search">
    <!-- "" --><!-- </textarea></xmp --></option></form><form accept-charset="UTF-8" action="/vt-
middleware/cryptacular/search" class="js-site-search-form" data-scoped-search-url="/vt-
middleware/cryptacular/search" data-unscoped-search-url="/search" method="get"><div
style="margin:0;padding:0;display:inline"><input name="utf8" type="hidden" value="&#x2713;" /></div>
    <label class="form-control header-search-wrapper js-chromeless-input-container">
      <a href="/vt-middleware/cryptacular/blob/master/NOTICE" class="header-search-scope no-underline">This
repository</a>
      <input type="text"
class="form-control header-search-input js-site-search-focus js-site-search-field is-clearable"
data-hotkey="s"
name="q"
value=""
placeholder="Search"
aria-label="Search this repository"
data-unscoped-placeholder="Search GitHub"
data-scoped-placeholder="Search"
autocapitalize="off">
```

```
<input type="hidden" class="js-site-search-type-field" name="type" >
</label>
</form></div>
```

```
<a class="text-bold site-header-link" href="/login?return_to=%2Fvt-
middleware%2Fcryptacular%2Fblob%2Fmaster%2FNOTICE" data-ga-click="(Logged out) Header, clicked Sign
in, text:sign-in">Sign in</a>
<span class="text-gray">or</span>
<a class="text-bold site-header-link" href="/join?source=header-repo" data-ga-click="(Logged out) Header,
clicked Sign up, text:sign-up">Sign up</a>
</div>
</div>
</div>
</header>
```

```
</div>
```

```
<div id="start-of-content" class="show-on-focus"></div>
```

```
<div id="js-flash-container">
</div>
```

```
<div role="main">
<div itemscope itemtype="http://schema.org/SoftwareSourceCode">
<div id="js-repo-pjax-container" data-pjax-container>
```

```
<div class="pagehead repohead instapaper_ignore readability-menu experiment-repo-nav">
<div class="container repohead-details-container">
```

```
<ul class="pagehead-actions">
<li>
<a href="/login?return_to=%2Fvt-middleware%2Fcryptacular"
class="btn btn-sm btn-with-count tooltipped tooltipped-n"
aria-label="You must be signed in to watch a repository" rel="nofollow">
<svg aria-hidden="true" class="octicon octicon-eye" height="16" version="1.1" viewBox="0 0 16 16"
width="16"><path fill-rule="evenodd" d="M8.06 2C3 2 0 8 8 8s3 6 8.06 6C13 14 16 8 16 8s-3-6-7.94-6zM8 12c-
2.2 0-4-1.78-4-4 0-2.2 1.8-4 4-4 2.2 0 4 1.8 4 4 0 2.2-1.78 4-4 4zm2-4c0 1.11-.89 2-2 2-1.11 0-2-.89-2-2 0-
1.11.89-2 2-2 1.11 0 2-.89 2-2z"/></svg>
```

```
    Watch
  </a>
  <a class="social-count" href="/vt-middleware/cryptacular/watchers"
    aria-label="9 users are watching this repository">
    9
  </a>

</li>

<li>
  <a href="/login?return_to=%2Fvt-middleware%2Fcryptacular"
    class="btn btn-sm btn-with-count tooltipped tooltipped-n"
    aria-label="You must be signed in to star a repository" rel="nofollow">
    <svg aria-hidden="true" class="octicon octicon-star" height="16" version="1.1" viewBox="0 0 14 16"
    width="14"><path fill-rule="evenodd" d="M14 6l-4.9-.64L7 1 4.9 5.36 0 6l3.6 3.26L2.67 14 7 11.67 11.33 14l-.93-
    4.74z"/></svg>
    Star
  </a>

  <a class="social-count js-social-count" href="/vt-middleware/cryptacular/stargazers"
    aria-label="15 users starred this repository">
    15
  </a>

</li>

<li>
  <a href="/login?return_to=%2Fvt-middleware%2Fcryptacular"
    class="btn btn-sm btn-with-count tooltipped tooltipped-n"
    aria-label="You must be signed in to fork a repository" rel="nofollow">
    <svg aria-hidden="true" class="octicon octicon-repo-forked" height="16" version="1.1" viewBox="0 0 10 16"
    width="10"><path fill-rule="evenodd" d="M8 1a1.993 1.993 0 0 0 1 3.72V6L5 8 3 6V4.72A1.993 1.993 0 0 0 2
    1a1.993 1.993 0 0 0 1 3.72V6.5l3 3v1.78A1.993 1.993 0 0 0 5 15a1.993 1.993 0 0 0 1 3.72V9.5l3-3V4.72A1.993
    1.993 0 0 0 8 1zM2 4.2C1.34 4.2 8 3.65 8 3.65-.65-.55 1.2 1.2 1.2 1.2 0 1.2 1.2 0 .65-.55 1.2 1.2 1.2zm3 10c-
    .66 0 1.2-.55 1.2 1.2 0-.65-.55 1.2 1.2 1.2 0 1.2 1.2 0 .65-.55 1.2 1.2 1.2zm3-10c-.66 0 1.2-.55 1.2 1.2 0-
    .65-.55 1.2 1.2 1.2 0 1.2 1.2 0 .65-.55 1.2 1.2 1.2z"/></svg>
    Fork
  </a>

  <a href="/vt-middleware/cryptacular/network" class="social-count"
    aria-label="1 user forked this repository">
    1
  </a>
</li>
</ul>

<h1 class="public ">
<svg aria-hidden="true" class="octicon octicon-repo" height="16" version="1.1" viewBox="0 0 12 16"
```

```
width="12"><path fill-rule="evenodd" d="M4 9H3V8h1v1zm0-3H3v1h1V6zm0-2H3v1h1V4zm0-2H3v1h1V2zm8-1v12c0 .55-.45 1-1 1H6v2l-1.5-1.5L3 16v-2H1c-.55 0-1-.45-1-1V1c0-.55.45-1 1-1h10c.55 0 1 .45 1 1zm-1 10H1v2h2v-1h3v1h5v-2zm0-10H2v9h9V1z"/></svg>
<span class="author" itemprop="author"><a href="/vt-middleware" class="url fn" rel="author">vt-middleware</a></span><!--
--><span class="path-divider"></span><!--
--><strong itemprop="name"><a href="/vt-middleware/cryptacular" data-pjax="#js-repo-pjax-container">cryptacular</a></strong>
```

```
</h1>
```

```
</div>
```

```
<div class="container">
```

```
<nav class="reponav js-repo-nav js-sidenav-container-pjax"
```

```
  itemscope
```

```
  itemtype="http://schema.org/BreadcrumbList"
```

```
  role="navigation"
```

```
  data-pjax="#js-repo-pjax-container">
```

```
<span itemscope itemtype="http://schema.org/ListItem" itemprop="itemListElement">
```

```
  <a href="/vt-middleware/cryptacular" class="js-selected-navigation-item selected reponav-item" data-hotkey="g c" data-selected-links="repo_source repo_downloads repo_commits repo_releases repo_tags repo_branches /vt-middleware/cryptacular" itemprop="url">
```

```
    <svg aria-hidden="true" class="octicon octicon-code" height="16" version="1.1" viewBox="0 0 14 16" width="14"><path fill-rule="evenodd" d="M9.5 3L8 4.5 11.5 8 8 11.5 9.5 13 14 8 9.5 3zm-5 0L0 8l4.5 5L6 11.5 2.5 8 6 4.5 4.5 3z"/></svg>
```

```
    <span itemprop="name">Code</span>
```

```
    <meta itemprop="position" content="1">
```

```
</a> </span>
```

```
<span itemscope itemtype="http://schema.org/ListItem" itemprop="itemListElement">
```

```
  <a href="/vt-middleware/cryptacular/issues" class="js-selected-navigation-item reponav-item" data-hotkey="g i" data-selected-links="repo_issues repo_labels repo_milestones /vt-middleware/cryptacular/issues" itemprop="url">
```

```
    <svg aria-hidden="true" class="octicon octicon-issue-opened" height="16" version="1.1" viewBox="0 0 14 16" width="14"><path fill-rule="evenodd" d="M7 2.3c3.14 0 5.7 2.56 5.7 5.7s-2.56 5.7-5.7 5.7A5.71 5.71 0 0 1 1.3 8c0-3.14 2.56-5.7 5.7-5.7zm7 1c3.14 1 4.14 0 4.14 0 8s3.14 7 7 7-3.14 7-7-7zm1 3H6v5h2V4zm0 6H6v2h2v-2z"/></svg>
```

```
    <span itemprop="name">Issues</span>
```

```
    <span class="Counter">4</span>
```

```
    <meta itemprop="position" content="2">
```

```
</a> </span>
```

```
<span itemscope itemtype="http://schema.org/ListItem" itemprop="itemListElement">
```

```
  <a href="/vt-middleware/cryptacular/pulls" class="js-selected-navigation-item reponav-item" data-hotkey="g p" data-selected-links="repo_pulls /vt-middleware/cryptacular/pulls" itemprop="url">
```

```
    <svg aria-hidden="true" class="octicon octicon-git-pull-request" height="16" version="1.1" viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M11 11.28V5c-.03-.78-.34-1.47-.94-2.06C9.46 2.35 8.78 2.03 8
```

2H7V0L4 3I3 3V4h1c.27.02.48.11.69.31.21.2.3.42.31.69v6.28A1.993 1.993 0 0 0 10 15a1.993 1.993 0 0 0 1-3.72zm-1 2.92c-.66 0-1.2-.55-1.2-1.2 0-.65.55-1.2 1.2-1.2.65 0 1.2.55 1.2 1.2 0 .65-.55 1.2-1.2 1.2zM4 3c0-1.11-.89-2-2-2a1.993 1.993 0 0 0-1 3.72v6.56A1.993 1.993 0 0 0 2 15a1.993 1.993 0 0 0 1-3.72V4.72c.59-.34 1-.98 1-1.72zm-.8 10c0 .66-.55 1.2-1.2 1.2-.65 0-1.2-.55-1.2-1.2 0-.65.55-1.2 1.2-1.2.65 0 1.2.55 1.2 1.2zM2 4.2C1.34 4.2.8 3.65.8 3c0-.65.55-1.2 1.2-1.2.65 0 1.2.55 1.2 1.2 0 .65-.55 1.2-1.2 1.2z"/></svg>

Pull requests
1
<meta itemprop="position" content="3">

<svg aria-hidden="true" class="octicon octicon-project" height="16" version="1.1" viewBox="0 0 15 16" width="15"><path fill-rule="evenodd" d="M10 12h3V2h-3v10zm-4-2h3V2H6v8zm-4 4h3V2H2v12zm-1 1h13V1H1v14zM14 0H1a1 1 0 0 0-1 1v14a1 1 0 0 1 1h13a1 1 0 0 0 1-1V1a1 1 0 0 0-1-1z"/></svg>

Projects
0

<div class="reponav-dropdown js-menu-container">
<button type="button" class="btn-link reponav-item reponav-dropdown js-menu-target " data-no-toggle aria-expanded="false" aria-haspopup="true">

Insights
<svg aria-hidden="true" class="octicon octicon-triangle-down v-align-middle text-gray" height="11" version="1.1" viewBox="0 0 12 16" width="8"><path fill-rule="evenodd" d="M0 5l6 6 6-6z"/></svg>
</button>

<div class="dropdown-menu-content js-menu-content">
<div class="dropdown-menu dropdown-menu-sw">

<svg aria-hidden="true" class="octicon octicon-pulse" height="16" version="1.1" viewBox="0 0 14 16" width="14"><path fill-rule="evenodd" d="M11.5 8L8.8 5.4 6.6 8.5 5.5 1.6 2.38 8H0v2h3.6l9-1.8.9 5.4L9 8.5l1.6 1.5H14V8z"/></svg>

Pulse

<svg aria-hidden="true" class="octicon octicon-graph" height="16" version="1.1" viewBox="0 0 16 16" width="16"><path fill-rule="evenodd" d="M16 14v1H0V0h1v14h15zM5 13H3V8h2v5zm4 0H7V3h2v10zm4 0h-2V6h2v7z"/></svg>

Graphs

</div>
</div>
</div>
</nav>

</div>
</div>


```

<div class="container new-discussion-timeline experiment-repo-nav">
  <div class="repository-content">

    <a href="/vt-middleware/cryptacular/blob/c26911e3cd28497ce9daa3ce682e09cb2d1d8688/NOTICE" class="d-
none js-permalink-shortcut" data-hotkey="y">Permalink</a>

    <!-- blob contrib key: blob_contributors:v21:f5054b9e46039e0ad937c69e6151b7d4 -->

    <div class="file-navigation js-zeroclipboard-container">

    <div class="select-menu branch-select-menu js-menu-container js-select-menu float-left">
      <button class=" btn btn-sm select-menu-button js-menu-target css-truncate" data-hotkey="w"

        type="button" aria-label="Switch branches or tags" aria-expanded="false" aria-haspopup="true">
        <i>Branch:</i>
        <span class="js-select-button css-truncate-target">master</span>
      </button>

    <div class="select-menu-modal-holder js-menu-content js-navigation-container" data-pjax>

      <div class="select-menu-modal">
        <div class="select-menu-header">
          <svg aria-label="Close" class="octicon octicon-x js-menu-close" height="16" role="img" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M7.48 8l3.75-1.48 1.48L6 9.48l-3.75 3.75-
1.48-1.48L4.52 8 .77 4.25l1.48-1.48L6 6.52l3.75-3.75 1.48 1.48z"/></svg>
          <span class="select-menu-title">Switch branches/tags</span>
        </div>

        <div class="select-menu-filters">
          <div class="select-menu-text-filter">
            <input type="text" aria-label="Filter branches/tags" id="context-commitish-filter-field" class="form-control
js-filterable-field js-navigation-enable" placeholder="Filter branches/tags">
          </div>
          <div class="select-menu-tabs">
            <ul>
              <li class="select-menu-tab">
                <a href="#" data-tab-filter="branches" data-filter-placeholder="Filter branches/tags" class="js-select-menu-
tab" role="tab">Branches</a>
              </li>
              <li class="select-menu-tab">
                <a href="#" data-tab-filter="tags" data-filter-placeholder="Find a tag" class="js-select-menu-tab"
role="tab">Tags</a>
              </li>
            </ul>
          </div>
        </div>
      </div>
    </div>
  </div>

```

```
<div class="select-menu-list select-menu-tab-bucket js-select-menu-tab-bucket" data-tab-filter="branches"
role="menu">

  <div data-filterable-for="context-commitish-filter-field" data-filterable-type="substring">

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middlewre/cryptacular/blob/ISSUE-31+32/NOTICE"
      data-name="ISSUE-31+32"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target js-select-menu-filter-text">
        ISSUE-31+32
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middlewre/cryptacular/blob/gh-pages/NOTICE"
      data-name="gh-pages"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target js-select-menu-filter-text">
        gh-pages
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open selected"
      href="/vt-middlewre/cryptacular/blob/master/NOTICE"
      data-name="master"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target js-select-menu-filter-text">
        master
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middlewre/cryptacular/blob/v1.1/NOTICE"
      data-name="v1.1"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target js-select-menu-filter-text">
```

```
    v1.1
  </span>
</a>
</div>

<div class="select-menu-no-results">Nothing to show</div>
</div>

<div class="select-menu-list select-menu-tab-bucket js-select-menu-tab-bucket" data-tab-filter="tags">
  <div data-filterable-for="context-commitish-filter-field" data-filterable-type="substring">

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middleware/cryptacular/tree/v1.2.1/NOTICE"
      data-name="v1.2.1"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target" title="v1.2.1">
        v1.2.1
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middleware/cryptacular/tree/v1.2.0/NOTICE"
      data-name="v1.2.0"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target" title="v1.2.0">
        v1.2.0
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middleware/cryptacular/tree/v1.1.2/NOTICE"
      data-name="v1.1.2"
      data-skip-pjax="true"
      rel="nofollow">
      <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
      <span class="select-menu-item-text css-truncate-target" title="v1.1.2">
        v1.1.2
      </span>
    </a>

    <a class="select-menu-item js-navigation-item js-navigation-open "
      href="/vt-middleware/cryptacular/tree/v1.1.1/NOTICE"
      data-name="v1.1.1"

```

```
data-skip-pjax="true"
rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.1.1">
    v1.1.1
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
href="/vt-middleware/cryptacular/tree/v1.1.0/NOTICE"
data-name="v1.1.0"
data-skip-pjax="true"
rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.1.0">
    v1.1.0
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
href="/vt-middleware/cryptacular/tree/v1.0/NOTICE"
data-name="v1.0"
data-skip-pjax="true"
rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.0">
    v1.0
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
href="/vt-middleware/cryptacular/tree/v1.0-RC6/NOTICE"
data-name="v1.0-RC6"
data-skip-pjax="true"
rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.0-RC6">
    v1.0-RC6
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
href="/vt-middleware/cryptacular/tree/v1.0-RC4/NOTICE"
data-name="v1.0-RC4"
data-skip-pjax="true"
rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
```

```
<span class="select-menu-item-text css-truncate-target" title="v1.0-RC4">
  v1.0-RC4
</span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
  href="/vt-middleware/cryptacular/tree/v1.0-RC3/NOTICE"
  data-name="v1.0-RC3"
  data-skip-pjax="true"
  rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.0-RC3">
    v1.0-RC3
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
  href="/vt-middleware/cryptacular/tree/v1.0-RC2/NOTICE"
  data-name="v1.0-RC2"
  data-skip-pjax="true"
  rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.0-RC2">
    v1.0-RC2
  </span>
</a>
<a class="select-menu-item js-navigation-item js-navigation-open "
  href="/vt-middleware/cryptacular/tree/v1.0-RC1/NOTICE"
  data-name="v1.0-RC1"
  data-skip-pjax="true"
  rel="nofollow">
  <svg aria-hidden="true" class="octicon octicon-check select-menu-item-icon" height="16" version="1.1"
viewBox="0 0 12 16" width="12"><path fill-rule="evenodd" d="M12 5l-8 8-4-4 1.5-1.5L4 10l6.5-6.5z"/></svg>
  <span class="select-menu-item-text css-truncate-target" title="v1.0-RC1">
    v1.0-RC1
  </span>
</a>
</div>

<div class="select-menu-no-results">Nothing to show</div>
</div>

</div>
</div>
</div>

<div class="BtnGroup float-right">
  <a href="/vt-middleware/cryptacular/find/master"
```

```
class="js-pjax-capture-input btn btn-sm BtnGroup-item"
data-pjax
data-hotkey="t">
  Find file
</a>
<button aria-label="Copy file path to clipboard" class="js-zeroclipboard btn btn-sm BtnGroup-item tooltip
tooltip-s" data-copied-hint="Copied!" type="button">Copy path</button>
</div>
<div class="breadcrumb js-zeroclipboard-target">
  <span class="repo-root js-repo-root"><span class="js-path-segment"><a href="/vt-
middleware/cryptacular"><span>cryptacular</span></a></span></span><span class="separator"></span><strong
class="final-path">NOTICE</strong>
</div>
</div>
```

```
<div class="commit-tease">
  <span class="float-right">
    <a class="commit-tease-sha" href="/vt-
middleware/cryptacular/commit/6dd6f199ac3ecc3b4c5aef9e04be3bbe265a30a1" data-pjax>
      6dd6f19
    </a>
    <relative-time datetime="2017-07-06T22:28:36Z">Jul 7, 2017</relative-time>
  </span>
</div>
  
  <a href="/dfish3r" class="user-mention" rel="contributor">dfish3r</a>
  <a href="/vt-middleware/cryptacular/commit/6dd6f199ac3ecc3b4c5aef9e04be3bbe265a30a1"
class="message" data-pjax="true" title="Update year in notice.">Update year in notice.</a>
</div>
```

```
<div class="commit-tease-contributors">
  <button type="button" class="btn-link muted-link contributors-toggle" data-facebox="#blob_contributors_box">
    <strong>1</strong>
    contributor
  </button>
</div>
```

```
<div id="blob_contributors_box" style="display:none">
  <h2 class="facebox-header" data-facebox-id="facebox-header">Users who have contributed to this file</h2>
  <ul class="facebox-user-list" data-facebox-id="facebox-description">
    <li class="facebox-user-list-item">
      
      <a href="/dfish3r">dfish3r</a>
```

```
</li>
</ul>
</div>
</div>
```

```
<div class="file">
```

```
<div class="file-header">
```

```
<div class="file-actions">
```

```
<div class="BtnGroup">
```

```
<a href="/vt-middleware/cryptacular/raw/master/NOTICE" class="btn btn-sm BtnGroup-item" id="raw-
url">Raw</a>
```

```
<a href="/vt-middleware/cryptacular/blame/master/NOTICE" class="btn btn-sm js-update-url-with-hash
BtnGroup-item" data-hotkey="b">Blame</a>
```

```
<a href="/vt-middleware/cryptacular/commits/master/NOTICE" class="btn btn-sm BtnGroup-item"
rel="nofollow">History</a>
```

```
</div>
```

```
<button type="button" class="btn-octicon disabled tooltiped tooltiped-nw"
aria-label="You must be signed in to make or propose changes">
<svg aria-hidden="true" class="octicon octicon-pencil" height="16" version="1.1" viewBox="0 0 14 16"
width="14"><path fill-rule="evenodd" d="M0 12v3h3l8-8-3-3-8 8zm3 2H1v-2h1v1h1v1zm10.3-9.3L12 6 9 3l1.3-
1.3a.996.996 0 0 1 1.41 0l1.59 1.59c.39.39 1.02 0 1.41z"/></svg>
```

```
</button>
```

```
<button type="button" class="btn-octicon btn-octicon-danger disabled tooltiped tooltiped-nw"
aria-label="You must be signed in to make or propose changes">
```

```
<svg aria-hidden="true" class="octicon octicon-trashcan" height="16" version="1.1" viewBox="0 0 12 16"
width="12"><path fill-rule="evenodd" d="M11 2H9c0-.55-.45-1-1-1H5c-.55 0-1 .45-1 1H2c-.55 0-1 .45-1 1v1c0
.55.45 1 1 1v9c0 .55.45 1 1 1h7c.55 0 1-.45 1-1V5c.55 0 1-.45 1-1V3c0-.55-.45-1-1zm-1
12H3V5h1v8h1V5h1v8h1V5h1v8h1V5h1v9zm1-10H2V3h9v1z"/></svg>
```

```
</button>
```

```
</div>
```

```
<div class="file-info">
```

```
7 lines (5 sloc)
```

```
<span class="file-info-divider"></span>
```

```
165 Bytes
```

```
</div>
```

```
</div>
```

```
<div itemprop="text" class="blob-wrapper data type-text">
```

```
<table class="highlight tab-size js-file-line-container" data-tab-size="8">
```

```
<tr>
```

```
<td id="L1" class="blob-num js-line-number" data-line-number="1"></td>
```

```
<td id="LC1" class="blob-code blob-code-inner js-file-line">Cryptacular Java Library</td>
```

```
</tr>
<tr>
  <td id="L2" class="blob-num js-line-number" data-line-number="2"></td>
  <td id="LC2" class="blob-code blob-code-inner js-file-line">Copyright (C) 2003-2017 Virginia Tech.</td>
</tr>
<tr>
  <td id="L3" class="blob-num js-line-number" data-line-number="3"></td>
  <td id="LC3" class="blob-code blob-code-inner js-file-line">All rights reserved.</td>
</tr>
<tr>
  <td id="L4" class="blob-num js-line-number" data-line-number="4"></td>
  <td id="LC4" class="blob-code blob-code-inner js-file-line">
</td>
</tr>
<tr>
  <td id="L5" class="blob-num js-line-number" data-line-number="5"></td>
  <td id="LC5" class="blob-code blob-code-inner js-file-line">This product includes software developed at</td>
</tr>
<tr>
  <td id="L6" class="blob-num js-line-number" data-line-number="6"></td>
  <td id="LC6" class="blob-code blob-code-inner js-file-line">Virginia Tech (http://www.vt.edu).</td>
</tr>
</table>
```

</div>

</div>

```
<button type="button" data-facebox="#jump-to-line" data-facebox-class="linejump" data-hotkey="l" class="d-
none">Jump to Line</button>
<div id="jump-to-line" style="display:none">
  <!-- "" --><!-- </textarea></xmp> --></option></form><form accept-charset="UTF-8" action="" class="js-jump-
to-line-form" method="get"><div style="margin:0;padding:0;display:inline"><input name="utf8" type="hidden"
value="&#x2713;" /></div>
  <input class="form-control linejump-input js-jump-to-line-field" type="text" placeholder="Jump to line&hellip;"
aria-label="Jump to line" autofocus>
  <button type="submit" class="btn">Go</button>
</form> </div>
```

</div>

```
<div class="modal-backdrop js-touch-events"></div>
</div>
```

</div>

</div>

</div>


```
<div class="container site-footer-container">
  <div class="site-footer " role="contentinfo">
    <ul class="site-footer-links float-right">
      <li><a href="https://github.com/contact" data-ga-click="Footer, go to contact, text:contact">Contact
      GitHub</a></li>
      <li><a href="https://developer.github.com" data-ga-click="Footer, go to api, text:api">API</a></li>
      <li><a href="https://training.github.com" data-ga-click="Footer, go to training, text:training">Training</a></li>
      <li><a href="https://shop.github.com" data-ga-click="Footer, go to shop, text:shop">Shop</a></li>
      <li><a href="https://github.com/blog" data-ga-click="Footer, go to blog, text:blog">Blog</a></li>
      <li><a href="https://github.com/about" data-ga-click="Footer, go to about, text:about">About</a></li>
    </ul>

    <a href="https://github.com" aria-label="Homepage" class="site-footer-mark" title="GitHub">
      <svg aria-hidden="true" class="octicon octicon-mark-github" height="24" version="1.1" viewBox="0 0 16 16"
      width="24"><path fill-rule="evenodd" d="M8 0C3.58 0 0 3.58 0 8c0 3.54 2.29 6.53 5.47 7.59.47.35.93.68 1.38.98
      .19-.01-.82-.01-1.49-.201.37-2.53-.49-2.69-.94-.09-.23-.48-.94-.82-1.13-.28-.15-.68-.52-.01-.53.63-.01 1.08.58
      1.23.82.72 1.21 1.87.87 2.33.66.07-.52.28-.87.51-1.07-1.78-.2-3.64-.89-3.64-3.95 0-.87.31-1.59.82-2.15-.08-.2-.36-
      1.02.08-2.12 0 0 .67-.21 2.28.64-.18 1.32-.27 2-.27.68 0 1.36.09 2 .27 1.53-1.04 2.2-.82 2.2-.82.44 1.1.16 1.92.08
      2.12.51.56.82 1.27.82 2.15 0 3.07-1.87 3.75-3.65 3.95.29.25.54.73.54 1.48 0 1.07-.01 1.93-.01 2.2 0
      .21.15.46.55.38A8.013 8.013 0 0 0 16 8c0-4.42-3.58-8-8z"/></svg>
    </a>

    <ul class="site-footer-links">
      <li>&copy; 2017 <span title="0.10938s from unicorn-2925809464-f2ltq">GitHub</span>, Inc.</li>
      <li><a href="https://github.com/site/terms" data-ga-click="Footer, go to terms, text:terms">Terms</a></li>
      <li><a href="https://github.com/site/privacy" data-ga-click="Footer, go to privacy,
      text:privacy">Privacy</a></li>
      <li><a href="https://github.com/security" data-ga-click="Footer, go to security,
      text:security">Security</a></li>
      <li><a href="https://status.github.com/" data-ga-click="Footer, go to status, text:status">Status</a></li>
      <li><a href="https://help.github.com" data-ga-click="Footer, go to help, text:help">Help</a></li>
    </ul>
  </div>
</div>
```

```
<div id="ajax-error-message" class="ajax-error-message flash flash-error">
  <svg aria-hidden="true" class="octicon octicon-alert" height="16" version="1.1" viewBox="0 0 16 16"
  width="16"><path fill-rule="evenodd" d="M8.865 1.52c-.18-.31-.51-.5-.87-.5s-.69.19-.87.5L2.75 13.5c-.18.31-
  .18.69 0 1 .19.31.52.5.87.5h13.7c.36 0 .69-.19.86-.5.17-.31.18-.69.01-1L8.865 1.52zM8.995 13h-2v-2h2v2zm0-3h-
  2V6h2v4z"/></svg>
  <button type="button" class="flash-close js-flash-close js-ajax-error-dismiss" aria-label="Dismiss error">
    <svg aria-hidden="true" class="octicon octicon-x" height="16" version="1.1" viewBox="0 0 12 16"
    width="12"><path fill-rule="evenodd" d="M7.48 8l3.75 3.75-1.48 1.48L6 9.48l3.75 3.75-1.48-1.48L4.52 8 .77
    4.25l1.48-1.48L6 5.2l3.75-3.75 1.48 1.48z"/></svg>
```

```
</button>
You can't perform that action at this time.
</div>

<script crossorigin="anonymous" src="https://assets-cdn.github.com/assets/compat-
91f98c37fc84eac24836eec2567e9912742094369a04c4eba6e3cd1fa18902d9.js"></script>
<script crossorigin="anonymous" src="https://assets-cdn.github.com/assets/frameworks-
f84bb87b149685d1e6c6f057ee324f2cd496e677f5a359a8b5db853313bb83e6.js"></script>

<script async="async" crossorigin="anonymous" src="https://assets-cdn.github.com/assets/github-
13fa3aa50ac8f9fa9a7d198f0cd13b0905775d39446ad076d17d8f74a998438a.js"></script>

<div class="js-stale-session-flash stale-session-flash flash flash-warn flash-banner d-none">
  <svg aria-hidden="true" class="octicon octicon-alert" height="16" version="1.1" viewBox="0 0 16 16"
width="16"><path fill-rule="evenodd" d="M8.865 1.52c-.18-.31-.51-.51-.87-.5s-.69.19-.87.5L2.75 13.5c-.18.31-
.18.69 0 1.19.31.52.587.5h13.7c.36 0 .69-.19.86-.5.17-.31.18-.69.01-1L8.865 1.52zM8.995 13h-2v-2h2v2zm0-3h-
2V6h2v4z"/></svg>
  <span class="signed-in-tab-flash">You signed in with another tab or window. <a href="">Reload</a> to refresh
your session.</span>
  <span class="signed-out-tab-flash">You signed out in another tab or window. <a href="">Reload</a> to refresh
your session.</span>
</div>
<div class="facebox" id="facebox" style="display:none;">
<div class="facebox-popup">
  <div class="facebox-content" role="dialog" aria-labelledby="facebox-header" aria-describedby="facebox-
description">
    </div>
    <button type="button" class="facebox-close js-facebox-close" aria-label="Close modal">
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width="12"><path fill-rule="evenodd" d="M7.48 8l3.75-3.75 1.48 1.48L6 9.48l-3.75 3.75-1.48-1.48L4.52 8.77
4.25l1.48-1.48L6 6.52l3.75-3.75 1.48 1.48z"/></svg>
    </button>
  </div>
</div>
</div>

</body>
</html>
```

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Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library. It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.

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The Unicode Standard, Unicode Character Database, Version 10.0.0

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```
</pre>
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```

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	GL/gltext.h	Khronos
	GL/wglext.h	Khronos
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include/GL/gl.h :

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include/GL/glxext.h
include/GL/wglxext.h :
```

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```
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```
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```
<pre>
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1.86 libxaw 1.0.13-2

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1.87 glslang 7.11.3214-2

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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/Initialize.h

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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/Scan.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/localintermediate.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/RemoveTree.h

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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Include/intermediate.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/Versions.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/attribute.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Include/Types.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/SPIRV/GlslangToSpv.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/parseVersions.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/SPIRV/doc.h

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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Public/ShaderLang.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/SPIRV/spvIR.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/SPIRV/SpvBuilder.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Include/InfoSink.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Include/Common.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/Include/arrays.h

* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/SPIRV/SpvTools.h

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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/glslang/Include/InitializeGlobals.h
* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/SPIRV/disassemble.h
* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/glslang/MachineIndependent/LiveTraverser.h
* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/glslang/MachineIndependent/ScanContext.h
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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/SPIRV/GLSL.ext.KHR.h
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* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-
xz/usr/include/SPIRV/Logger.h
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- * /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-xz/usr/include/glslang/MachineIndependent/preprocessor/PpTokens.h
- * /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-

xz/usr/include/glslang/MachineIndependent/preprocessor/PpContext.h

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```
* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-  
xz/usr/include/SPIRV/hex_float.h  
* /opt/cola/permits/1665342056_1683817432.7330694/0/glslang-7-11-3214-2-x86-64-pkg-tar-  
xz/usr/include/SPIRV/bitutils.h
```

1.88 nload 0.7.4-5

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1.89 linux-kernel 5.2.8

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/* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)

* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)

*

* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.

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* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY

* interrupts us (except possibly for removal/insertion of the cable?)

* 10/4/97 - began heavy inline documentation of the code. Corrected typos

* and spelling mistakes.

* 10/5/97 - added code to handle PHY interrupts, disable PHY on
 * loss of link, and correctly re-enable PHY when link is
 * re-established. (put back CFG_PHYIE)
 *
 * Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
 *
 * R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
 *
 * Linux driver for the IDT77201 NICStAR PCI ATM controller.
 * PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
 * see init_nicstar() for PHY initialization to change this. This driver
 * expects the Linux ATM stack to support scatter-gather lists
 * (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
 *
 * Implementing minimal-copy of received data:
 * IDT always receives data into a small buffer, then large buffers
 * as needed. This means that data must always be copied to create
 * the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
 * Fix is simple: make large buffers large enough to hold entire
 * SDU, and leave <small_buffer_data> bytes empty at the start. Then
 * copy small buffer contents to head of large buffer.
 * Trick is to avoid fragmenting Linux, due to need for a lot of large
 * buffers. This is done by 2 things:
 * 1) skb->destructor / skb->atm.recycle_buffer
 * combined, allow nicstar_free_rx_skb to be called to
 * recycle large data buffers
 * 2) skb_clone of received buffers
 * See nicstar_free_rx_skb and linearize_buffer for implementation
 * details.
 *
 *
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 *

* M. Welsh, 6 July 1996

*

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1.90 libraw 2.1.2-2

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1.92 cpio 2.12-4

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Version 3, 29 June 2007

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For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote

it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library

creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the

Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the

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1.94 pam 1.5.2

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Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use

this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

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- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object

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Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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```

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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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1.96 sqlite 3.35.4

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1.97 xcb-proto 1.13 2

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1.98 e2fsprogs 1.46.5

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```
#  
# This is a Makefile stub which handles the creation of BSD shared  
# libraries.  
#  
# In order to use this stub, the following makefile variables must be defined.  
#  
# BSDLIB_VERSION = 1.0  
# BSDLIB_IMAGE = libce  
# BSDLIB_MYDIR = et  
# BSDLIB_INSTALL_DIR = $(SHLIBDIR)  
#
```

```
all:: image
```

```
real-subdirs:: Makefile  
@echo " MKDIR pic"  
@mkdir -p pic
```

```
BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)  
BSDLIB_PIC_FLAG = -fpic
```

```
image: $(BSD_LIB)
```

```
$(BSD_LIB): $(OBJS)  
(cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))  
$(MV) pic/$(BSD_LIB) .  
$(RM) -f ../$(BSD_LIB)  
(cd ..; $(LN) $(LINK_BUILD_FLAGS) \  
`echo $(my_dir) | sed -e 's;lib/;;'"/$(BSD_LIB) $(BSD_LIB))
```

```
install-shlibs install:: $(BSD_LIB)
```

```
@echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
@$(INSTALL_PROGRAM) $(BSD_LIB) \
$(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
@-$(LDCONFIG)
```

install-strip: install

install-shlibs-strip:: install-shlibs

uninstall-shlibs uninstall::

```
$(RM) -f $(DESTDIR)$$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
```

clean::

```
$(RM) -rf pic
```

```
$(RM) -f $(BSD_LIB)
```

```
$(RM) -f ../$(BSD_LIB)
```

This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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Index: tdbsa/tdb.c

=====

--- tdbsa.orig/tdb.c

+++ tdbsa/tdb.c

@@ -4,11 +4,11 @@ Rev: 23371

Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)

*/

/*

- Unix SMB/CIFS implementation.
- + trivial database library - standalone version

- trivial database library - private includes
-
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Theodore Ts'o
23-June-2007

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This package was added to the e2fsprogs debian source package by Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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```
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```
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1.100 ding-libs 0.6.1 2

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```

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You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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proprietary programs. If your program is a subroutine library, you may
consider it more useful to permit linking proprietary applications with the
library. If this is what you want to do, use the GNU Library General
Public License instead of this License.

1.104 cracklib 2.9.7

1.104.1 Available under license :

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Version 2.1, February 1999

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[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

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^L

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs

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- a) The modified work must itself be a software library.
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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6,

whether or not they are linked directly with the Library itself.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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<one line to give the library's name and a brief idea of what it does.>

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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

EFFECTIVE OCT 2008, LICENSE IS BEING CHANGED TO LGPL-2.1 (though not reflected in released code until Nov 2009 - slow release cycle...)

Discussion thread from mailing list archive, with approval from everyone actively involved or holding original licensing rights included.

[Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:16

Attachments: Message as HTML

looks like 2.8.11 is out and marked as "GPL-2" ... releasing libraries unde=
r=20

GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists
=2Dmike

Re: [Cracklib-devel] cracklib license

From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:18

I understand that, and you're welcome to bring it up with Alec directly and see if he wants to relicense his code as LGPL... but at this point, it was enough to just get it consistent and documented as to what it was released under. This wasn't actually a license change, just a clarification of the licensing that was already in place.=20

-- Nathan

=20

Nathan Neulinger EMail: nneul@um...

University of Missouri - Rolla Phone: (573) 341-6679

UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----

> From: cracklib-devel-bounces@li...

> [mailto:cracklib-devel-bounces@li...] On Behalf Of

> Mike Frysinger

> Sent: Monday, October 01, 2007 8:15 PM

> To: cracklib-devel@li...

> Subject: [Cracklib-devel] cracklib license

>=20

> looks like 2.8.11 is out and marked as "GPL-2" ... releasing

> libraries under

> GPL-2 is not desirable at all ... this is why the LGPL-2.1 exists

> -mike

Re: [Cracklib-devel] cracklib license
From: Mike Frysinger <vapier@ge...> - 2007-10-02 01:33

Attachments: Message as HTML

On Monday 01 October 2007, Neulinger, Nathan wrote:

> I understand that, and you're welcome to bring it up with Alec directly
> and see if he wants to relicense his code as LGPL... but at this point,
> it was enough to just get it consistent and documented as to what it was
> released under. This wasn't actually a license change, just a
> clarification of the licensing that was already in place.

the original license (before moving to sourceforge -- aka, 2.7) was not=20
GPL-2 ... it was a modified artistic license ... i didnt notice the license=
=20
change until it was mentioned in the latest notes.

unlike the old license, GPL-2 prevents people from using cracklib unless th=
eir=20
applications are also GPL-2 which imo is just wrong. it isnt the place of =
a=20
library to dictact to application writes what license they should be using.=
=20
thus LGPL-2.1 enters to fill this void.
=2Dmike

Re: [Cracklib-devel] cracklib license
From: Neulinger, Nathan <nneul@um...> - 2007-10-02 01:46

Seems like the ideal thing here would be for you and the other distro
maintainers to get together with Alec in a conversation and come to a
decision as to what licensing scheme y'all want. I haven't really done
much other than cleaning up the packaging and patches and a small bit of
additional code, so whatever licensing y'all come up with is fine by me.

-- Nathan
=20

Nathan Neulinger EMail: nneul@um...
University of Missouri - Rolla Phone: (573) 341-6679
UMR Information Technology Fax: (573) 341-4216

> -----Original Message-----
> From: cracklib-devel-bounces@li...
> [mailto:cracklib-devel-bounces@li...] On Behalf Of
> Mike Frysinger
> Sent: Monday, October 01, 2007 8:33 PM

> To: Neulinger, Nathan
> Cc: cracklib-devel@li...; Alec Muffett
> Subject: Re: [Cracklib-devel] cracklib license
>=20
> On Monday 01 October 2007, Neulinger, Nathan wrote:
>> I understand that, and you're welcome to bring it up with Alec
> directly
>> and see if he wants to relicense his code as LGPL... but at this
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> GPL-2 ... it was a modified artistic license ... i didnt notice the
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> unless their
> applications are also GPL-2 which imo is just wrong. it isnt the
> place of a
> library to dictact to application writes what license they should
> be using.
> thus LGPL-2.1 enters to fill this void.
> -mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2007-10-02 08:57

> Seems like the ideal thing here would be for you and the other distro
> maintainers to get together with Alec in a conversation and come to a
> decision as to what licensing scheme y'all want. I haven't really done
> much other than cleaning up the packaging and patches and a small
> bit of
> additional code, so whatever licensing y'all come up with is fine
> by me.

I am sympathetic. Guys, what do you reckon?

What I am hearing so far is that LGPL makes sense, since it can be
linked with any code, not just GPL...

-a

Re: [Cracklib-devel] cracklib license

From: Devin Reade <gdr@gn...> - 2007-10-02 15:04

I would like to see it under LGPL as well. I think it is in everyone's best interests to have as secure systems as possible, and I think tainting it via GPL will just make it less likely that the library gets used, and will not usually cause companies/developers to GPL the dependent code (where it is not already GPL).

I like GPL, I use it when I can, but I don't think that it's the correct license in this situation.

Devin

--

If it's sinful, it's more fun.

Re: [Cracklib-devel] cracklib license

From: Nalin Dahyabhai <nalin@re...> - 2008-01-28 16:32

On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

>> Seems like the ideal thing here would be for you and the other distro
>> maintainers to get together with Alec in a conversation and come to a
>> decision as to what licensing scheme y'all want. I haven't really done
>> much other than cleaning up the packaging and patches and a small
>> bit of
>> additional code, so whatever licensing y'all come up with is fine
>> by me.
>
> I am sympathetic. Guys, what do you reckon?
>
> What I am hearing so far is that LGPL makes sense, since it can be
> linked with any code, not just GPL...

My apologies for not chiming in in anything resembling a reasonable timeframe.

I'd also suggest the LGPL, for the reason you noted above. Alternately, GPLv2 with the option of using the library under a later version of the GPL would permit applications which were released under version 3 of the GPL to use the library, too, which would be sufficient for the packages which are included in Fedora. FWIW, I'd personally lean toward LGPL.

In any case, I thank you both for working on sorting this out.

Cheers,

Nalin

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-05 21:27

Attachments: Message as HTML

On Monday 28 January 2008, Nalin Dahyabhai wrote:

> On Tue, Oct 02, 2007 at 09:57:31AM +0100, Alec Muffett wrote:

>>> Seems like the ideal thing here would be for you and the other distro
>>> maintainers to get together with Alec in a conversation and come to a
>>> decision as to what licensing scheme y'all want. I haven't really done
>>> much other than cleaning up the packaging and patches and a small
>>> bit of
>>> additional code, so whatever licensing y'all come up with is fine
>>> by me.

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>> I am sympathetic. Guys, what do you reckon?

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> GPL would permit applications which were released under version 3 of the
> GPL to use the library, too, which would be sufficient for the packages
> which are included in Fedora. FWIW, I'd personally lean toward LGPL.

>

> In any case, I thank you both for working on sorting this out.

looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
the change now ?

-mike

Re: [Cracklib-devel] cracklib license

From: Alec Muffett <alecm@cr...> - 2008-10-05 23:18

>> In any case, I thank you both for working on sorting this out.

>

> looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we make
> the change now ?

yes. go for it. thanks++

-a

Re: [Cracklib-devel] cracklib license

From: Mike Frysinger <vapier@ge...> - 2008-10-25 22:34

Attachments: Message as HTML

On Sunday 05 October 2008, Alec Muffett wrote:

> >> In any case, I thank you both for working on sorting this out.

> >

> > looks like everyone is OK with LGPL-2.1 (GNU Lesser license), so can we

> > make the change now ?

>

> yes. go for it. thanks++

Nathan Neulinger is the only one who can actually make said change ...

-mike

BELOW IS ORIGINAL LICENSING DISCUSSION RE CHANGING TO GPL from Artistic.

CrackLib was originally licensed with a variant of the Artistic license. In the interests of wider acceptance and more modern licensing, it was switched with the original author's blessing to GPL v2.

This approval was carried out in email discussions in 2005, and has been reconfirmed as of 2007-10-01 with the following email from Alec Muffett.

The below email references nneul@umr.edu address, as that is the address that was used at the time. For any future emails regarding this, please use nneul@neulinger.org.

From alecm@crypticide.com Mon Oct 1 12:26:03 2007
Received: from umr-exproto2.cc.umr.edu ([131.151.0.192]) by UMR-CMAIL1.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);
Mon, 1 Oct 2007 12:26:03 -0500
Received: from scansrv2.srv.mst.edu ([131.151.1.114]) by umr-exproto2.cc.umr.edu with Microsoft SMTPSVC(6.0.3790.3959);
Mon, 1 Oct 2007 12:26:02 -0500
Received: (qmail 8022 invoked from network); 1 Oct 2007 16:59:55 -0000
Received: from smtp1.srv.mst.edu (131.151.1.43)
by scanin-ipv6.cc.umr.edu with SMTP; 1 Oct 2007 16:59:55 -0000
Received: from spunkymail-mx8.g.dreamhost.com (mx1.spunky.mail.dreamhost.com [208.97.132.47])
by smtp1.srv.mst.edu (8.13.1/8.13.1) with ESMTP id 191Gxtp020623
for <nneul@umr.edu>; Mon, 1 Oct 2007 11:59:55 -0500

Received: from rutherford.zen.co.uk (rutherford.zen.co.uk [212.23.3.142])
by spunkymail-mx8.g.dreamhost.com (Postfix) with ESMTTP id 2C7734D311
for <nneul@neulinger.org>; Mon, 1 Oct 2007 09:59:50 -0700 (PDT)
Received: from [82.68.43.14] (helo=[192.168.1.3])
by rutherford.zen.co.uk with esmtp (Exim 4.50)
id 1IcOcX-0004Qt-6L
for nneul@neulinger.org; Mon, 01 Oct 2007 16:59:49 +0000
Mime-Version: 1.0 (Apple Message framework v752.2)
In-Reply-To: <1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>
References: <1190922867.3457.147.camel@localhost.localdomain>
<EC90713277D2BE41B7110CCD74E235CEF44F38@UMR-CMAIL1.umr.edu>
<1b1b3fd80710010908k11dac0afp1f2dd471059ff9a4@mail.gmail.com>
Content-Type: text/plain; charset=US-ASCII; delsp=yes; format=flowed
Message-Id: <117A1264-F6DC-4E25-B0DD-56FBFE6E9F@crypticide.com>
Content-Transfer-Encoding: 7bit
From: Alec Muffett <alecm@crypticide.com>
Subject: Re: cracklib license
Date: Mon, 1 Oct 2007 17:59:46 +0100
To: Nathan Neulinger <nneul@neulinger.org>
X-Mailer: Apple Mail (2.752.2)
X-Originating-Rutherford-IP: [82.68.43.14]
Return-Path: alecm@crypticide.com
X-OriginalArrivalTime: 01 Oct 2007 17:26:03.0008 (UTC) FILETIME=[2420C000:01C80450]
Status: RO
Content-Length: 585
Lines: 21

>
> ----- Forwarded message -----
> From: Neulinger, Nathan <nneul@umr.edu>
> Date: Sep 27, 2007 2:58 PM
> Subject: RE: cracklib license
> To: alecm@crypto.dircon.co.uk
>
> Any chance you could write me a self-contained email stating clearly
> that the license is being changed to GPL, so I could include that
> email
> in the repository and clean up the repository/tarballs? I have all the
> original discussion, but something succinct and self contained
> would be
> ideal.

The license for my code in the Cracklib distribution is henceforth GPL.

Happy now? :-)

-a

1.105 x-text 0.4.0

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1.106 golang 1.19.8

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27287199

27287880

27287883

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```

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```
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```

```
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1.108 audit 2.8.5-3

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```
<one line to give the program's name and a brief idea of what it does.>  
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```

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```
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```

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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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#+STARTUP: showall
```

* DNS resolver (dirmngr/dns.c)

dns.c - Recursive, Reentrant DNS Resolver.

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Subsequently modified by:

1986 John Gilmore hoptoad!gnu

1987 James A. Woods ames!jaw

1993 Christopher Seiwald seiwald@vix.com

2000, 2002 Christopher Seiwald <seiwald@perforce.com>

2010 Steve Bennett <steveb@workware.net.au>

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1.110 Icms 2.9-2

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1.111 libwebp 1.0.3-1

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1.112 libvpx 1.8.1

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1.113 sysfsutils 2.1.0-10

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```

1.114 libpng 1.6.37

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1.118 lua 5.2.4

1.119 zstd 1.5.2

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```
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```

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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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1.120 libplacebo 1.18.0-1

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 */
```

Found in path(s):

```
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/dispatch.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/shaders.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/swapchain.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/dither.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/vulkan.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/shaders/av1.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/shaders/colorspace.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/filters.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/renderer.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/shaders/sampling.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/gpu.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/common.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/colorspace.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
```

```
xz/usr/include/libplacebo/config.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/context.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/dummy.h
* /opt/cola/permits/1665619653_1683840455.7395532/0/libplacebo-1-18-0-1-x86-64-pkg-tar-
xz/usr/include/libplacebo/utlils/upload.h
```

1.121 postgresql 13.10

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```
*****
```

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*****
```

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1.122 fdisk 2.38.1

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*/

NR START END SECTORS SIZE NAME UUID

1 32 7679 7648 3.7M 8f8378c0-01
2 7680 16383 8704 4.3M 8f8378c0-02
5 7936 12799 4864 2.4M
6 12544 16127 3584 1.8M

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x ?"U@,5 @mISmIN<GimCN7g1u|E
43mI,5WEV @@ WEV @mImImIAmImImI0mImImI*mImI
A0mImImI...
lost+found...

;9GimCN7g

!"#\$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#\$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#\$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#\$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~WEV @@

WEV[B "1

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1.123 strongswan 5.8.0-2

1.123.1 Available under license :

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```
# Section defining IKE connection configurations.
# connections {

# Section for an IKE connection named <conn>.
# <conn> {

# IKE major version to use for connection.
# version = 0

# Local address(es) to use for IKE communication, comma separated.
# local_addrs = %any

# Remote address(es) to use for IKE communication, comma separated.
# remote_addrs = %any

# Local UDP port for IKE communication.
```

```
# local_port = 500

# Remote UDP port for IKE communication.
# remote_port = 500

# Comma separated proposals to accept for IKE.
# proposals = default

# Virtual IPs to request in configuration payload / Mode Config.
# vips =

# Use Aggressive Mode in IKEv1.
# aggressive = no

# Set the Mode Config mode to use.
# pull = yes

# Differentiated Services Field Codepoint to set on outgoing IKE packets
# (six binary digits).
# dscp = 000000

# Enforce UDP encapsulation by faking NAT-D payloads.
# encap = no

# Enables MOBIKE on IKEv2 connections.
# mobike = yes

# Interval of liveness checks (DPD).
# dpd_delay = 0s

# Timeout for DPD checks (IKEV1 only).
# dpd_timeout = 0s

# Use IKE UDP datagram fragmentation (yes, accept, no or force).
# fragmentation = yes

# Use childless IKE_SA initiation (allow, force or never).
# childless = allow

# Send certificate requests payloads (yes or no).
# send_certreq = yes

# Send certificate payloads (always, never or ifasked).
# send_cert = ifasked

# String identifying the Postquantum Preshared Key (PPK) to be used.
# ppk_id =
```

```
# Whether a Postquantum Preshared Key (PPK) is required for this
# connection.
# ppk_required = no

# Number of retransmission sequences to perform during initial connect.
# keyingtries = 1

# Connection uniqueness policy (never, no, keep or replace).
# unique = no

# Time to schedule IKE reauthentication.
# reauth_time = 0s

# Time to schedule IKE rekeying.
# rekey_time = 4h

# Hard IKE_SA lifetime if rekey/reauth does not complete, as time.
# over_time = 10% of rekey_time/reauth_time

# Range of random time to subtract from rekey/reauth times.
# rand_time = over_time

# Comma separated list of named IP pools.
# pools =

# Default inbound XFRM interface ID for children.
# if_id_in = 0

# Default outbound XFRM interface ID for children.
# if_id_out = 0

# Whether this connection is a mediation connection.
# mediation = no

# The name of the connection to mediate this connection through.
# mediated_by =

# Identity under which the peer is registered at the mediation server.
# mediation_peer =

# Section for a local authentication round.
# local<suffix> {

    # Optional numeric identifier by which authentication rounds are
    # sorted. If not specified rounds are ordered by their position in
    # the config file/VICI message.
    # round = 0
```



```

# Comma separated list of certificate candidates to use for
# authentication.
# certs =

# Section for a certificate candidate to use for authentication.
# cert<suffix> =

# Comma separated list of raw public key candidates to use for
# authentication.
# pubkeys =

# Authentication to perform locally (pubkey, psk, xauth[-backend] or
# eap[-method]).
# auth = pubkey

# IKE identity to use for authentication round.
# id =

# Client EAP-Identity to use in EAP-Identity exchange and the EAP
# method.
# eap_id = id

# Server side EAP-Identity to expect in the EAP method.
# aaa_id = remote-id

# Client XAuth username used in the XAuth exchange.
# xauth_id = id

# cert<suffix> {

    # Absolute path to the certificate to load.
    # file =

    # Hex-encoded CKA_ID of the certificate on a token.
    # handle =

    # Optional slot number of the token that stores the certificate.
    # slot =

    # Optional PKCS#11 module name.
    # module =

# }

# }

# Section for a remote authentication round.
# remote<suffix> {

```

```
# Optional numeric identifier by which authentication rounds are
# sorted. If not specified rounds are ordered by their position in
# the config file/VICI message.
# round = 0

# IKE identity to expect for authentication round.
# id = %any

# Identity to use as peer identity during EAP authentication.
# eap_id = id

# Authorization group memberships to require.
# groups =

# Certificate policy OIDs the peer's certificate must have.
# cert_policy =

# Comma separated list of certificate to accept for authentication.
# certs =

# Section for a certificate to accept for authentication.
# cert<suffix> =

# Comma separated list of CA certificates to accept for
# authentication.
# cacerts =

# Section for a CA certificate to accept for authentication.
# cacert<suffix> =

# Comma separated list of raw public keys to accept for
# authentication.
# pubkeys =

# Certificate revocation policy, (strict, ifuri or relaxed).
# revocation = relaxed

# Authentication to expect from remote (pubkey, psk, xauth[-backend]
# or eap[-method]).
# auth = pubkey

# cert<suffix> {

# Absolute path to the certificate to load.
# file =

# Hex-encoded CKA_ID of the certificate on a token.
```

```

# handle =

# Optional slot number of the token that stores the certificate.
# slot =

# Optional PKCS#11 module name.
# module =

# }

# cacert<suffix> {

# Absolute path to the certificate to load.
# file =

# Hex-encoded CKA_ID of the CA certificate on a token.
# handle =

# Optional slot number of the token that stores the CA
# certificate.
# slot =

# Optional PKCS#11 module name.
# module =

# }

# }

# children {

# CHILD_SA configuration sub-section.
# <child> {

# AH proposals to offer for the CHILD_SA.
# ah_proposals =

# ESP proposals to offer for the CHILD_SA.
# esp_proposals = default

# Use incorrect 96-bit truncation for HMAC-SHA-256.
# sha256_96 = no

# Local traffic selectors to include in CHILD_SA.
# local_ts = dynamic

# Remote selectors to include in CHILD_SA.
# remote_ts = dynamic

```

```
# Time to schedule CHILD_SA rekeying.
# rekey_time = 1h

# Maximum lifetime before CHILD_SA gets closed, as time.
# life_time = rekey_time + 10%

# Range of random time to subtract from rekey_time.
# rand_time = life_time - rekey_time

# Number of bytes processed before initiating CHILD_SA rekeying.
# rekey_bytes = 0

# Maximum bytes processed before CHILD_SA gets closed.
# life_bytes = rekey_bytes + 10%

# Range of random bytes to subtract from rekey_bytes.
# rand_bytes = life_bytes - rekey_bytes

# Number of packets processed before initiating CHILD_SA
# rekeying.
# rekey_packets = 0

# Maximum number of packets processed before CHILD_SA gets
# closed.
# life_packets = rekey_packets + 10%

# Range of random packets to subtract from packets_bytes.
# rand_packets = life_packets - rekey_packets

# Updown script to invoke on CHILD_SA up and down events.
# updown =

# Hostaccess variable to pass to updown script.
# hostaccess = no

# IPsec Mode to establish (tunnel, transport, transport_proxy,
# beet, pass or drop).
# mode = tunnel

# Whether to install IPsec policies or not.
# policies = yes

# Whether to install outbound FWD IPsec policies or not.
# policies_fwd_out = no

# Action to perform on DPD timeout (clear, trap or restart).
# dpd_action = clear
```

```
# Enable IPComp compression before encryption.
# ipcomp = no

# Timeout before closing CHILD_SA after inactivity.
# inactivity = 0s

# Fixed reqid to use for this CHILD_SA.
# reqid = 0

# Optional fixed priority for IPsec policies.
# priority = 0

# Optional interface name to restrict IPsec policies.
# interface =

# Netfilter mark and mask for input traffic.
# mark_in = 0/0x00000000

# Whether to set *mark_in* on the inbound SA.
# mark_in_sa = no

# Netfilter mark and mask for output traffic.
# mark_out = 0/0x00000000

# Netfilter mark applied to packets after the inbound IPsec SA
# processed them.
# set_mark_in = 0/0x00000000

# Netfilter mark applied to packets after the outbound IPsec SA
# processed them.
# set_mark_out = 0/0x00000000

# Inbound XFRM interface ID.
# if_id_in = 0

# Outbound XFRM interface ID.
# if_id_out = 0

# Traffic Flow Confidentiality padding.
# tfc_padding = 0

# IPsec replay window to configure for this CHILD_SA.
# replay_window = 32

# Enable hardware offload for this CHILD_SA, if supported by the
# IPsec implementation.
# hw_offload = no
```

```
# Whether to copy the DF bit to the outer IPv4 header in tunnel
# mode.
# copy_df = yes

# Whether to copy the ECN header field to/from the outer IP
# header in tunnel mode.
# copy_ecn = yes

# Whether to copy the DSCP header field to/from the outer IP
# header in tunnel mode.
# copy_dscp = out

# Action to perform after loading the configuration (none, trap,
# start).
# start_action = none

# Action to perform after a CHILD_SA gets closed (none, trap,
# start).
# close_action = none

# }

# }

# }

# }

# Section defining secrets for IKE/EAP/XAuth authentication and private key
# decryption.
# secrets {

# EAP secret section for a specific secret.
# eap<suffix> {

# Value of the EAP/XAuth secret.
# secret =

# Identity the EAP/XAuth secret belongs to.
# id<suffix> =

# }

# XAuth secret section for a specific secret.
# xauth<suffix> {

# }
```

```
# NTLM secret section for a specific secret.
# ntlm<suffix> {

    # Value of the NTLM secret.
    # secret =

    # Identity the NTLM secret belongs to.
    # id<suffix> =

# }

# IKE preshared secret section for a specific secret.
# ike<suffix> {

    # Value of the IKE preshared secret.
    # secret =

    # IKE identity the IKE preshared secret belongs to.
    # id<suffix> =

# }

# Postquantum Preshared Key (PPK) section for a specific secret.
# ppk<suffix> {

    # Value of the PPK.
    # secret =

    # PPK identity the PPK belongs to.
    # id<suffix> =

# }

# Private key decryption passphrase for a key in the private folder.
# private<suffix> {

    # File name in the private folder for which this passphrase should be
    # used.
    # file =

    # Value of decryption passphrase for private key.
    # secret =

# }

# Private key decryption passphrase for a key in the rsa folder.
# rsa<suffix> {
```

```
# File name in the rsa folder for which this passphrase should be used.
# file =

# Value of decryption passphrase for RSA key.
# secret =

# }

# Private key decryption passphrase for a key in the ecdsa folder.
# ecdsa<suffix> {

# File name in the ecdsa folder for which this passphrase should be
# used.
# file =

# Value of decryption passphrase for ECDSA key.
# secret =

# }

# Private key decryption passphrase for a key in the pkcs8 folder.
# pkcs8<suffix> {

# File name in the pkcs8 folder for which this passphrase should be
# used.
# file =

# Value of decryption passphrase for PKCS#8 key.
# secret =

# }

# PKCS#12 decryption passphrase for a container in the pkcs12 folder.
# pkcs12<suffix> {

# File name in the pkcs12 folder for which this passphrase should be
# used.
# file =

# Value of decryption passphrase for PKCS#12 container.
# secret =

# }

# Definition for a private key that's stored on a token/smartcard.
# token<suffix> {
```



```

# Hex-encoded CKA_ID of the private key on the token.
# handle =

# Optional slot number to access the token.
# slot =

# Optional PKCS#11 module name to access the token.
# module =

# Optional PIN required to access the key on the token. If none is
# provided the user is prompted during an interactive --load-creds call.
# pin =

# }

# }

# Section defining named pools.
# pools {

# Section defining a single pool with a unique name.
# <name> {

# Addresses allocated in pool.
# addr =

# Comma separated list of additional attributes from type <attr>.
# <attr> =

# }

# }

# Section defining attributes of certification authorities.
# authorities {

# Section defining a certification authority with a unique name.
# <name> {

# CA certificate belonging to the certification authority.
# cacert =

# Absolute path to the certificate to load.
# file =

# Hex-encoded CKA_ID of the CA certificate on a token.
# handle =

```

```

# Optional slot number of the token that stores the CA certificate.
# slot =

# Optional PKCS#11 module name.
# module =

# Comma-separated list of CRL distribution points.
# crl_uris =

# Comma-separated list of OCSP URIs.
# ocsps_uris =

# Defines the base URI for the Hash and URL feature supported by IKEv2.
# cert_uri_base =

# }

# }

# Include config snippets
include conf.d/*.conf

Found in path(s):
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/etc/swanctl/swanctl.conf
No license file was found, but licenses were detected in source scan.

# Options for the charon IKE daemon.
charon {

# Accept unencrypted ID and HASH payloads in IKEv1 Main Mode.
# accept_unencrypted_mainmode_messages = no

# Maximum number of half-open IKE_SAs for a single peer IP.
# block_threshold = 5

# Whether Certificate Revocation Lists (CRLs) fetched via HTTP or LDAP
# should be saved under a unique file name derived from the public key of
# the Certification Authority (CA) to /etc/ipsec.d/crls (stroke) or
# /etc/swanctl/x509crl (vici), respectively.
# cache_crls = no

# Whether relations in validated certificate chains should be cached in
# memory.
# cert_cache = yes

# Send Cisco Unity vendor ID payload (IKEv1 only).
# cisco_unity = no

```

```
# Close the IKE_SA if setup of the CHILD_SA along with IKE_AUTH failed.
# close_ike_on_child_failure = no

# Number of half-open IKE_SAs that activate the cookie mechanism.
# cookie_threshold = 10

# Delete CHILD_SAs right after they got successfully rekeyed (IKEv1 only).
# delete_rekeyed = no

# Delay in seconds until inbound IPsec SAs are deleted after rekeyings
# (IKEv2 only).
# delete_rekeyed_delay = 5

# Use ANSI X9.42 DH exponent size or optimum size matched to cryptographic
# strength.
# dh_exponent_ansi_x9_42 = yes

# Use RTLD_NOW with dlopen when loading plugins and IMV/IMCs to reveal
# missing symbols immediately.
# dlopen_use_rtld_now = no

# DNS server assigned to peer via configuration payload (CP).
# dns1 =

# DNS server assigned to peer via configuration payload (CP).
# dns2 =

# Enable Denial of Service protection using cookies and aggressiveness
# checks.
# dos_protection = yes

# Compliance with the errata for RFC 4753.
# ecp_x_coordinate_only = yes

# Free objects during authentication (might conflict with plugins).
# flush_auth_cfg = no

# Whether to follow IKEv2 redirects (RFC 5685).
# follow_redirects = yes

# Maximum size (complete IP datagram size in bytes) of a sent IKE fragment
# when using proprietary IKEv1 or standardized IKEv2 fragmentation, defaults
# to 1280 (use 0 for address family specific default values, which uses a
# lower value for IPv4). If specified this limit is used for both IPv4 and
# IPv6.
# fragment_size = 1280
```

```
# Name of the group the daemon changes to after startup.
# group =

# Timeout in seconds for connecting IKE_SAs (also see IKE_SA_INIT DROPPING).
# half_open_timeout = 30

# Enable hash and URL support.
# hash_and_url = no

# Allow IKEv1 Aggressive Mode with pre-shared keys as responder.
# i_dont_care_about_security_and_use_aggressive_mode_psk = no

# Whether to ignore the traffic selectors from the kernel's acquire events
# for IKEv2 connections (they are not used for IKEv1).
# ignore_acquire_ts = no

# A space-separated list of routing tables to be excluded from route
# lookups.
# ignore_routing_tables =

# Maximum number of IKE_SAs that can be established at the same time before
# new connection attempts are blocked.
# ikesa_limit = 0

# Number of exclusively locked segments in the hash table.
# ikesa_table_segments = 1

# Size of the IKE_SA hash table.
# ikesa_table_size = 1

# Whether to close IKE_SA if the only CHILD_SA closed due to inactivity.
# inactivity_close_ike = no

# Limit new connections based on the current number of half open IKE_SAs,
# see IKE_SA_INIT DROPPING in strongswan.conf(5).
# init_limit_half_open = 0

# Limit new connections based on the number of queued jobs.
# init_limit_job_load = 0

# Causes charon daemon to ignore IKE initiation requests.
# initiator_only = no

# Install routes into a separate routing table for established IPsec
# tunnels.
# install_routes = yes

# Install virtual IP addresses.
```

```
# install_virtual_ip = yes

# The name of the interface on which virtual IP addresses should be
# installed.
# install_virtual_ip_on =

# Check daemon, libstrongswan and plugin integrity at startup.
# integrity_test = no

# A comma-separated list of network interfaces that should be ignored, if
# interfaces_use is specified this option has no effect.
# interfaces_ignore =

# A comma-separated list of network interfaces that should be used by
# charon. All other interfaces are ignored.
# interfaces_use =

# NAT keep alive interval.
# keep_alive = 20s

# Plugins to load in the IKE daemon charon.
# load =

# Determine plugins to load via each plugin's load option.
# load_modular = no

# Initiate IKEv2 reauthentication with a make-before-break scheme.
# make_before_break = no

# Maximum number of IKEv1 phase 2 exchanges per IKE_SA to keep state about
# and track concurrently.
# max_ikev1_exchanges = 3

# Maximum packet size accepted by charon.
# max_packet = 10000

# Enable multiple authentication exchanges (RFC 4739).
# multiple_authentication = yes

# WINS servers assigned to peer via configuration payload (CP).
# nbns1 =

# WINS servers assigned to peer via configuration payload (CP).
# nbns2 =

# UDP port used locally. If set to 0 a random port will be allocated.
# port = 500
```

```
# UDP port used locally in case of NAT-T. If set to 0 a random port will be
# allocated. Has to be different from charon.port, otherwise a random port
# will be allocated.
# port_nat_t = 4500

# Whether to prefer updating SAs to the path with the best route.
# prefer_best_path = no

# Prefer locally configured proposals for IKE/IPsec over supplied ones as
# responder (disabling this can avoid keying retries due to
# INVALID_KEY_PAYLOAD notifies).
# prefer_configured_proposals = yes

# By default public IPv6 addresses are preferred over temporary ones (RFC
# 4941), to make connections more stable. Enable this option to reverse
# this.
# prefer_temporary_addrs = no

# Process RTM_NEWROUTE and RTM_DELROUTE events.
# process_route = yes

# Delay in ms for receiving packets, to simulate larger RTT.
# receive_delay = 0

# Delay request messages.
# receive_delay_request = yes

# Delay response messages.
# receive_delay_response = yes

# Specific IKEv2 message type to delay, 0 for any.
# receive_delay_type = 0

# Size of the AH/ESP replay window, in packets.
# replay_window = 32

# Base to use for calculating exponential back off, see IKEv2 RETRANSMISSION
# in strongswan.conf(5).
# retransmit_base = 1.8

# Maximum jitter in percent to apply randomly to calculated retransmission
# timeout (0 to disable).
# retransmit_jitter = 0

# Upper limit in seconds for calculated retransmission timeout (0 to
# disable).
# retransmit_limit = 0
```

```
# Timeout in seconds before sending first retransmit.
# retransmit_timeout = 4.0

# Number of times to retransmit a packet before giving up.
# retransmit_tries = 5

# Interval in seconds to use when retrying to initiate an IKE_SA (e.g. if
# DNS resolution failed), 0 to disable retries.
# retry_initiate_interval = 0

# Initiate CHILD_SA within existing IKE_SAs (always enabled for IKEv1).
# reuse_ikesa = yes

# Numerical routing table to install routes to.
# routing_table =

# Priority of the routing table.
# routing_table_prio =

# Whether to use RSA with PSS padding instead of PKCS#1 padding by default.
# rsa_pss = no

# Delay in ms for sending packets, to simulate larger RTT.
# send_delay = 0

# Delay request messages.
# send_delay_request = yes

# Delay response messages.
# send_delay_response = yes

# Specific IKEv2 message type to delay, 0 for any.
# send_delay_type = 0

# Send strongSwan vendor ID payload
# send_vendor_id = no

# Whether to enable Signature Authentication as per RFC 7427.
# signature_authentication = yes

# Whether to enable constraints against IKEv2 signature schemes.
# signature_authentication_constraints = yes

# Value mixed into the local IKE SPIs after applying spi_mask.
# spi_label = 0x0000000000000000

# Mask applied to local IKE SPIs before mixing in spi_label (bits set will
# be replaced with spi_label).
```

```

# spi_mask = 0x0000000000000000

# The upper limit for SPIs requested from the kernel for IPsec SAs.
# spi_max = 0xcfffffff

# The lower limit for SPIs requested from the kernel for IPsec SAs.
# spi_min = 0xc0000000

# Number of worker threads in charon.
# threads = 16

# Name of the user the daemon changes to after startup.
# user =

crypto_test {

    # Benchmark crypto algorithms and order them by efficiency.
    # bench = no

    # Buffer size used for crypto benchmark.
    # bench_size = 1024

    # Time in ms during which crypto algorithm performance is measured.
    # bench_time = 50

    # Test crypto algorithms during registration (requires test vectors
    # provided by the test-vectors plugin).
    # on_add = no

    # Test crypto algorithms on each crypto primitive instantiation.
    # on_create = no

    # Strictly require at least one test vector to enable an algorithm.
    # required = no

    # Whether to test RNG with TRUE quality; requires a lot of entropy.
    # rng_true = no

}

host_resolver {

    # Maximum number of concurrent resolver threads (they are terminated if
    # unused).
    # max_threads = 3

    # Minimum number of resolver threads to keep around.
    # min_threads = 0

```



```

}

leak_detective {

    # Includes source file names and line numbers in leak detective output.
    # detailed = yes

    # Threshold in bytes for leaks to be reported (0 to report all).
    # usage_threshold = 10240

    # Threshold in number of allocations for leaks to be reported (0 to
    # report all).
    # usage_threshold_count = 0

}

processor {

    # Section to configure the number of reserved threads per priority class
    # see JOB PRIORITY MANAGEMENT in strongswan.conf(5).
    priority_threads {

    }

}

# Section containing a list of scripts (name = path) that are executed when
# the daemon is started.
start-scripts {

}

# Section containing a list of scripts (name = path) that are executed when
# the daemon is terminated.
stop-scripts {

}

tls {

    # List of TLS encryption ciphers.
    # cipher =

    # List of TLS key exchange methods.
    # key_exchange =

    # List of TLS MAC algorithms.

```

```
# mac =

# List of TLS cipher suites.
# suites =

}

x509 {

    # Discard certificates with unsupported or unknown critical extensions.
    # enforce_critical = yes

}

}
```

Found in path(s):

```
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/share/strongswan/templates/config/strongswan.d/charon.conf
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/etc/strongswan.d/charon.conf
```

No license file was found, but licenses were detected in source scan.

whether to use IKE fragmentation (proprietary IKEv1 extension or IKEv2
number of bytes to pad ESP payload data to. Traffic Flow Confidentiality

Found in path(s):

```
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/share/man/man5/ipsec-conf-5-gz/ipsec.conf.5
```

No license file was found, but licenses were detected in source scan.

```
/opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/lib/strongswan/_copyright: binary file matches
```

Found in path(s):

```
* /bin/grep
```

No license file was found, but licenses were detected in source scan.

```
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```

Found in path(s):

```
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/lib/strongswan/_updown
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-xz/usr/bin/ipsec
No license file was found, but licenses were detected in source scan.
```

Use IKE fragmentation (proprietary IKEv1 extension or RFC 7383 IKEv2 improved Traffic Flow Confidentiality. The padding defines the minimum size of

Found in path(s):

```
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/share/man/man5/swanctl-conf-5-gz/swanctl.conf.5
No license file was found, but licenses were detected in source scan.
```

using proprietary IKEv1 or standardized IKEv2 fragmentation, defaults to 1280

Found in path(s):

```
* /opt/cola/permits/1660442907_1683911240.741078/0/strongswan-5-8-0-2-x86-64-pkg-tar-
xz/usr/share/man/man5/strongswan-conf-5-gz/strongswan.conf.5
```

1.124 netlink 1.7.0

1.124.1 Available under license :

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1.125 kmod 26-2

1.125.1 Available under license :

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Version 2.1, February 1999

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1.126 libva 2.5.0-1

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1.127 libxrender 0.9.10-2

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1.131 consul 1.5.1-1

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>>> golang_groupcache_lru-72d04f9fcdec7d3821820cc4a6f150eae553639a
>>> govmomi-v0.17.1
>>> maruel_panicparse_stack-25bcac0d793cf4109483505a0d66e066a3a90a80
>>> oxtoacart/bpool-4e1c5567d7c2dd59fa4c7c83d34c2f3528b025d6
>>> syncutil_singleflight-7ce08ca145dbe0e66a127c447b80ee7914f3e4f9
>>> vdemeester_shakers-24d7f1d6a71aa5d9cbe7390e4afb66b7eef9e1b3
>>> vishvananda_netlink-482f7a52b758233521878cb6c5904b6bd63f3457
>>> vishvananda_netns-604eaf189ee867d8c147fafc28def2394e878d25
>>> yaml_v2-4c78c975fe7c825c6d1466c42be594d1d6f3aba6
```

SECTION 2: BSD-STYLE, MIT-STYLE, OR SIMILAR STYLE LICENSES

```
>>> agl_ed25519-master
>>> airbrake_gobrake_v2-c9d51adc624b5cc4c1bf8de730a09af4878ffe2d
>>> api_compute_v1-dfa61ae24628a06502b9c2805d983b57e89399b5
>>> api_gensupport-dfa61ae24628a06502b9c2805d983b57e89399b5
>>> api_googleapi-dfa61ae24628a06502b9c2805d983b57e89399b5
>>> armon_go-metrics-f303b03b91d770a11a39677f1d3b55da4002bbcb
>>> armon_go-radix-4239b77079c7b5d1243b7b4736304ce8ddb6f0f2
>>> asaskevich_govalidator-9699ab6b38bee2e02cd3fe8b99ecf67665395c96
>>> azure_go-ansiterm-70b2c90b260171e829f1ebd7c17f600c11858dbe
>>> boltdb_bolt-b514920f8f2e0a68f857e5a12c774f385a59aef9
>>> cenkalti_backoff-b02f2bbce11d7ea6b97f282ef1771b0fe2f65ef3
>>> client9_misspell-9a1fc2456ac9e8c9b4cbe9d005b6e7adac0d357f
>>> codegangsta/inject-33e0aa1cb7c019ccc3fbc049a8262a6403d30504
>>> codegangsta_cli-master
```


>>> cpuguy83_go-md2man_md2man-a65d4d2de4d5f7c74868dfa9b202a3c8be315aaa
>>> d2g_dhcp4-f0e4d29ff0231dce36e250b2ed9ff08412584bca
>>> deckarep_golang-set-1f0f4ff8d3fbef9328522993ce71c35890f67554
>>> dustin_go-humanize-259d2a102b871d17f30e3cd9881a642961a1e486
>>> gemnasium_logrus-airbrake-hook_v2-31e6fd4bd5a98d8ee7673d24bc54ec73c31810dd
>>> gizak_termui-798ffb9cbbe4073ef1f88e6069ca4a2c6aa6676b
>>> go-check_check-20d25e2804050c1cd24a7eea1e7a6447dd0e74ec
>>> go-martini/martini-22fa46961aab2665cf3f1343b146d20028f5071
>>> go-nfs-client-42fca177a36031d648551c751de1daf5f55dd4f0
>>> godbus_dbus-230e4b23db2fd81c53eaa0073f76659d4849ce51
>>> gogo_protobuf_gogoproto-6a92c871a8f5333cf106b2cdf937567208dbb2b7
>>> gogo_protobuf_proto-6a92c871a8f5333cf106b2cdf937567208dbb2b7
>>> gogo_protobuf_protoc-gen-gogo_descriptor-6a92c871a8f5333cf106b2cdf937567208dbb2b7
>>> gogo_protobuf_sortkeys-6a92c871a8f5333cf106b2cdf937567208dbb2b7
>>> gogo_protobuf_types-6a92c871a8f5333cf106b2cdf937567208dbb2b7
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>>> golang_lint-cb00e5669539f047b2f4c53a421a01b0c8e172c6
>>> google_go-github_github-7a51fb928f52a196d5f31daefb8a489453ef54ff
>>> google_go-querysting_query-53e6ce116135b80d037921a7fdd5138cf32d7a8a
>>> google_uuid-f3f4b54b2fabcf1f11dcc939025bb0c109b00ed8
>>> googleapis_gax-go-da06d194a00e19ce00d9011a13931c3f6f6887c7
>>> gorilla_context-1c83b3eabd45b6d76072b66b746c20815fb2872d
>>> gorilla_mux-acf3be1b335c8ce30b2c8d51300984666f0ceefa
>>> gorilla_securecookie-fa5329f913702981df43dcb2a380bac429c810b5
>>> gorilla_sessions-ca9ada44574153444b00d3fd9c8559e4cc95f896
>>> gorilla_websocket-a91eba7f9777409bc2c443f5534d41dd20c5720
>>> graylog2_go-gelf_gelf-master
>>> grpc-b1a2821ca5a4fd6b6e48ddfb7d6d7584d839d21
>>> hpccloud_tail-a30252cb686a21eb2d0b98132633053ec2f7f1e5
>>> jessevdk_go-flags-97448c91aac742cbca3d020b3e769013a420a06f
>>> julienschmidt/httprouter-975b5c4c7c21c0e3d2764200bf2aa8e34657ae6e
>>> justinas/alice-1051eaf52fcfdd87ead59d28b065f1fcb8274ec
>>> kr_pty-f7ee69f31298ecbe5d2b349c711e2547a617d398
>>> mailru_easyjson-99e922cf9de1bc0ab38310c277cff32c2147e747
>>> martini-contrib/render-ec18f8345a1181146728238980606fb1d6f40e8c
>>> matryer_resync-d39c09a11215c84aab0b65e323fc47dd6e276af1
>>> mattn_go-runewidth-14207d285c6c197daabb5c9793d63e7af9ab2d50
>>> mdlayher/arp-7140e8e22da120cb3efc8e1096f299933624024e
>>> mdlayher/ethernet-e72cf8343052938936194daba1914fd1bb33d2fe
>>> mdlayher/raw-c83864e487652c25edc58048eafdc1dfa2f142c7
>>> microsoft_go-winio-24a3e3d3fc7451805e09d11e11e95d9a0a4f205e
>>> microsoft_hcsshim-d327ca738085de7d617aa1df16d98fe7a64c2455
>>> miekg_dns-ca336a1f95a6b89be9c250df26c7a41742eb4a6f
>>> mitchellh_go-wordwrap-ad45545899c7b13c020ea92b2072220eefad42b8
>>> mitchellh_mapstructure-5a0325d7fafaac12dda6e7fb8bd222ec1b69875e
>>> mreiferson_go-httpclient-31f0106b4474f14bc441575c19d3a5fa21aa1f6c
>>> naoina_denco-9af2ba0e24214bac003821f4a501b131b2e04c75
>>> nlopes_slack-f243c7602fdf906248fc1f165284daa4e4d2d09e

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>>> nsf_termbox-go-91bae1bb5fa9ee504905ecbe7043fa30e92feaa3
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>>> pkg_profile-8a808a6967b79da66deacfe508b26d398a69518f
>>> puerkitobio_purell-d69616f51cdfcd7514d6a380847a152dfc2a749d
>>> racksec_srslog-a974ba6f7fb527d2ddc73ee9c05d3e2ccc0af0dc
>>> rs/cors-8dd4211afb5d08dbb39a533b9bb9e4b486351df6
>>> ryanuber_go-glob-256dc444b735e061061cf46c809487313d5b0065
>>> sirupsen_logrus-d26492970760ca5d33129d2d799e34be5c4782eb
>>> smartystreets_assertions-287b4346dc4e71a038c346375a9d572453bc469b
>>> smartystreets_assertions_internal_oglematchers-287b4346dc4e71a038c346375a9d572453bc469b
>>> smartystreets_assertions_internal_oglemock-287b4346dc4e71a038c346375a9d572453bc469b
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>>> smartystreets_assertions_internal_reqtrace-287b4346dc4e71a038c346375a9d572453bc469b
>>> stretchr_objx-1a9d0bb9f541897e62256577b352fdbc1fb4fd94
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>>> tylerb_graceful-d7d7a205e779a4738d38eda0671fff8bfc965f14
>>> ugorji_go_codec-708a42d246822952f38190a8d8c4e6b16a0e600c
>>> urfave/negroni-ccc4a14984828dcb944e6f17fa4a967b18624f2b
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>>> x_crypto_curve25519-728b753d0135da6801d45a38e6f43ff55779c5c2
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>>> x_net_context-a6577fac2d73be281a500b310739095313165611
>>> x_net_http2-a6577fac2d73be281a500b310739095313165611
>>> x_net_idna-a6577fac2d73be281a500b310739095313165611
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>>> x_net_websocket-a6577fac2d73be281a500b310739095313165611
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>>> x_sync_singleflight-5a06fca2c336a4b2b2fcb45702e8c47621b2aa2c
>>> x_sys_unix-99f16d856c9836c42d24e7ab64ea72916925fa97
>>> x_sys_windows-99f16d856c9836c42d24e7ab64ea72916925fa97
>>> x_text_internal-f28f36722d5ef2f9655ad3de1f248e3e52ad5ebd
>>> x_text_language-f28f36722d5ef2f9655ad3de1f248e3e52ad5ebd
>>> x_text_message-f28f36722d5ef2f9655ad3de1f248e3e52ad5ebd
>>> x_tools_go_ast_astutil-381149a2d6e5d8f319ccf04bfefc71e03a78b868
>>> x_tools_go_buildutil-381149a2d6e5d8f319ccf04bfefc71e03a78b868
>>> x_tools_go_gcexportdata-381149a2d6e5d8f319ccf04bfefc71e03a78b868
>>> x_tools_go_gcimporter15-381149a2d6e5d8f319ccf04bfefc71e03a78b868
>>> x_tools_go_loader-381149a2d6e5d8f319ccf04bfefc71e03a78b868
>>> x_tools_imports-381149a2d6e5d8f319ccf04bfefc71e03a78b868
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>>> zenazn/goji-c05078ca81941f8e801bba3ddc0e6b86b7fdc893

SECTION 3: Mozilla Public License, V2.0

>>> d2g_dhcp4client-master

>>> hashicorp_go-cleanhttp-875fb671b3ddc66f8e2f0acc33829c8cb989a38d

>>> hashicorp_memberlist-cef12ad58224d55cf26caa9e3d239c2fcb3432a2

PART 2. VIRTUAL APPLIANCE: OPERATING SYSTEM LAYER

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>>> dbus-1.11.12-1.ph2

SECTION 2: Apache License, V2.0

>>> photon-release-2.0-2.ph2

SECTION 3: BSD-STYLE, MIT-STYLE, OR SIMILAR STYLE LICENSES

>>> bzip2-1.0.6-8.ph2

>>> curl-7.59.0-4.ph2

>>> expat-2.2.4-1.ph2

>>> iputils-20151218-4.ph2

>>> krb5-1.16-2.ph2

>>> libarchive-3.3.1-2.ph2

>>> libcap-2.25-7.ph2

>>> libdb-5.3.28-1.ph2

>>> libffi-3.2.1-5.ph2

>>> libsolv-0.6.26-3.ph2

>>> libssh2-1.8.0-1.ph2

>>> libtirpc-1.0.1-8.ph2

>>> linux-pam-1.3.0-1.ph2

>>> lsof-4.89-2.ph2

>>> ncurses-6.0-14.ph2

>>> openssh-7.5p1-11.ph2

>>> openssl-1.0.2q-1.ph2

>>> pcre-8.41-1.ph2

>>> poprt-1.16-5.ph2

>>> shadow-4.2.1-16.ph2

>>> sqlite-3.22.0-3.ph2

>>> sudo-1.8.20p2-5.ph2

>>> vim-8.0.0533-6.ph2

>>> xz-5.2.3-2.ph2
>>> zlib-1.2.11-1.ph2

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>>> e2fsprogs-1.43.4-2.ph2
>>> gcc-6.3.0-7.ph2
>>> iproute2-4.10.0-3.ph2
>>> iptables-1.6.1-4.ph2
>>> linux-esx-4.9.154-1.ph2
>>> logrotate-3.11.0-3.ph2
>>> mingetty-1.08-2.ph2
>>> net-tools-1.60-11.ph2
>>> procps-ng-3.3.15-2.ph2
>>> rpm-4.13.0.2-1.ph2
>>> tdnf-1.2.3-6.ph2
>>> util-linux-2.32-1.ph2

SECTION 5: GNU General Public License, V3.0

>>> bash-4.4.12-3.ph2
>>> coreutils-8.27-3.ph2
>>> elfutils-0.169-3.ph2
>>> grep-3.0-4.ph2
>>> gzip-1.8-1.ph2
>>> haveged-1.9.1-4.ph2
>>> readline-7.0-2.ph2

SECTION 6: GNU Lesser General Public License, V2.1

>>> cracklib-2.9.6-8.ph2
>>> glibc-2.26-13.ph2
>>> hawkey-2017.1-6.ph2
>>> kmod-24-3.ph2
>>> libgcrypt-1.8.1-2.ph2
>>> libpgp-error-1.27-1.ph2
>>> systemd-233-18.ph2

SECTION 7: GNU Lesser General Public License, V3.0

>>> gmp-6.1.2-2.ph2

SECTION 8: GNU Library General Public License, V2.0

>>> glib-2.52.1-3.ph2

SECTION 9: Mozilla Public License, V2.0

>>> ca-certificates-20180919-1.ph2

>>> nspr-4.15-1.ph2

>>> nss-3.31.1-1.ph2

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=====

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>>> coreos_etcd_client-781196fa8746d6c34ace2a62898051af6dc46002

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```

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```

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Go support for Protocol Buffers - Google's data interchange format

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Go support for leveled logs, analogous to <https://code.google.com/p/google-glog/>

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>>> yaml_v2-4c78c975fe7c825c6d1466c42be594d1d6f3aba6

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>>> asaskevich_govalidator-9699ab6b38bee2e02cd3fe8b99ecf67665395c96

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>>> azure_go-ansiterm-70b2c90b260171e829f1ebd7c17f600c11858dbe

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>>> boltdb_bolt-b514920f8f2e0a68f857e5a12c774f385a59aef9

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>>> cenkalti_backoff-b02f2bbce11d7ea6b97f282ef1771b0fe2f65ef3

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>>> client9_misspell-9a1fc2456ac9e8c9b4cbe9d005b6e7adac0d357f

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>>> gizak_termui-798ffb9cbb4073ef1f88e6069ca4a2c6aa6676b

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Gocheck - A rich testing framework for Go

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>>> go-martini/martini-22fa46961aabd2665cf3f1343b146d20028f5071

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>>> go-nfs-client-42fca177a36031d648551c751de1daf5f55dd4f0

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```
>>> godbus_dbus-230e4b23db2fd81c53eaa0073f76659d4849ce51
```

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>>> gogo_protobuf_gogoproto-6a92c871a8f5333cf106b2cdf937567208dbb2b7

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```

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>>> goji/param-d7f49fd7d1ed53fd562e737a8b5bbcc7e3d925e2

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>>> kr_pty-f7ee69f31298ecbe5d2b349c711e2547a617d398

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>>> mailru_easyjson-99e922cf9de1bc0ab38310c277cff32c2147e747

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>>> matryer_resync-d39c09a11215c84aab0b65e323fc47dd6e276af1

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>>> miekg_dns-ca336a1f95a6b89be9c250df26c7a41742eb4a6f

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>>> mitchellh_mapstructure-5a0325d7fafaac12dda6e7fb8bd222ec1b69875e

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>>> mreiferson_go-httpclient-31f0106b4474f14bc441575c19d3a5fa21aa1f6c

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>>> naoina_denco-9af2ba0e24214bac003821f4a501b131b2e04c75

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>>> nlopes_slack-f243c7602fdf906248fc1f165284daa4e4d2d09e

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>>> nsf_termbox-go-91bae1bb5fa9ee504905ecbe7043fa30e92feaa3

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>>> opennota_urlesc-5fa9ff0392746aeae1c4b37fcc42c65afa7a9587

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>>> puerkitobio_purell-d69616f51cdfcd7514d6a380847a152dfc2a749d

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>>> stretchr_objx-1a9d0bb9f541897e62256577b352fdb1fb4fd94

objx - by Mat Ryer and Tyler Bunnell

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>>> tomb_v1-dd632973f1e7218eb1089048e0798ec9ae7dceb8

tomb - support for clean goroutine termination in Go.

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>>> tylerb/graceful.v1-4654dfbb6ad53cb5e27f37d99b02e16c1872fbbb

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<https://www.ietf.org/rfc/rfc2268.txt>

<http://people.csail.mit.edu/rivest/pubs/KRRR98.pdf>

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>>> x_crypto_ed25519-728b753d0135da6801d45a38e6f43ff55779c5c2

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```

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It was heavily inspired by the go blowfish package.

```
>>> x_crypto_nacl_secretbox-728b753d0135da6801d45a38e6f43ff55779c5c2
```

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728b753d0135da6801d45a38e6f43ff55779c5c2\pkcs12\internal\rc2\rc2.go

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>>> x_crypto_poly1305-728b753d0135da6801d45a38e6f43ff55779c5c2

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crypto-728b753d0135da6801d45a38e6f43ff55779c5c2.tar.gz\crypto-728b753d0135da6801d45a38e6f43ff55779c5c2.tar\crypto-728b753d0135da6801d45a38e6f43ff55779c5c2\pkcs12\internal\rc2\rc2.go
```

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```
>>> x_crypto_salsa20_salsa-728b753d0135da6801d45a38e6f43ff55779c5c2
```

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```

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```
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```

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```
>>> x_net_lex_httplex-a6577fac2d73be281a500b310739095313165611
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>>> x_net_trace-a6577fac2d73be281a500b310739095313165611
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>>> x_oauth2-1611bb46e67abc64a71ecc5c3ae67f1cbbc2b921
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>>> x_sync_singleflight-5a06fca2c336a4b2b2fcb45702e8c47621b2aa2c

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```
>>> x_tools_go_buildutil-381149a2d6e5d8f319ccf04bfefc71e03a78b868
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```

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+build appengine

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It is designed to run only on the instance of godoc that serves golang.org.
package short

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The implementations of GSSAPI mechglue in GSSAPI-SPNEGO in "src/lib/gssapi", including the following files:

lib/gssapi/generic/gssapi_err_generic.et
lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c

lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c
lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c
lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c
lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c
lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
lib/gssapi/mechglue/g_seal.c
lib/gssapi/mechglue/g_sign.c
lib/gssapi/mechglue/g_store_cred.c
lib/gssapi/mechglue/g_unseal.c
lib/gssapi/mechglue/g_userok.c
lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/ipropr_hdr.h
kadmin/server/ipropr_svc.c
lib/kdb/ipropr.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
slave/kpropd_rpc.c
slave/kproplog.c

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@version 3.0 (December 2000)

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@author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>

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SHA-1 in C

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load tree nodes on demand. It also contains the script necessary to do full-text searches.

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-- vile: txtmode file-encoding=utf-8

>>> openssh-7.5p1-11.ph2

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@version 3.0 (December 2000)

Optimised ANSI C code for the Rijndael cipher (now AES)

@author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>

@author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>

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>>> pcre-8.41-1.ph2

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chkconfig: 2345 11 89

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SYN signatures. Those signatures work for SYN packets only (duh!).

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This C header file is part of the SoftFloat IEC/IEEE Floating-point Arithmetic Package, Release 2.

Written by John R. Hauser. This work was made possible in part by the International Computer Science Institute, located at Suite 600, 1947 Center Street, Berkeley, California 94704. Funding was partially provided by the National Science Foundation under grant MIP-9311980. The original version of this code was written as part of a project to build a fixed-point vector processor in collaboration with the University of California at Berkeley, overseen by Profs. Nelson Morgan and John Wawrzynek. More information is available through the Web page <http://www.jhauser.us/arithmic/SoftFloat-2b/SoftFloat-source.txt>

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```

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4.9.154.tar\arch\cris\arch-v10\lib\memset.c

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A more complete resource is the third edition of "Linux Device Drivers" by Jonathan Corbet, Alessandro Rubini, and Greg Kroah-Hartman. LDD3 is available for free (under Creative Commons License) from:

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linux-esx-4.9.154-1.ph2.src.rpm/linux-esx-4.9.154-1.ph2.src.cpio/linux-4.9.154.tar.xz/linux-4.9.154.tar/drivers/input/keyboard/hil_kbd.c

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```
linux-esx-4.9.154-1.ph2.src.rpm/linux-esx-4.9.154-1.ph2.src.cpio/linux-4.9.154.tar.xz/linux-4.9.154.tar/drivers/net/ppp/bsd_comp.c
```

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```
linux-esx-4.9.154-1.ph2.src.rpm/linux-esx-4.9.154-1.ph2.src.cpio/linux-4.9.154.tar.xz/linux-4.9.154.tar/fs/jffs2/LICENCE
```

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```
linux-esx-4.9.154-1.ph2.src.rpm/linux-esx-4.9.154-1.ph2.src.cpio/linux-4.9.154.tar.xz/linux-4.9.154.tar/include/dt-bindings/clock/sun4i-a10-pll2.h
```

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linux-esx-4.9.154-1.ph2.src.rpm/linux-esx-4.9.154-1.ph2.src.cpio/linux-4.9.154.tar.xz/linux-4.9.154.tar/include/uapi/linux/dm-ioctl.h

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```
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fprintf(stderr,  
"This may be freely redistributed under the terms of "  
"the GNU Public License
```

>>> mingetty-1.08-2.ph2

```
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This getty can only be used as a small console getty. Look at mgetty  
for a real modem getty.
```

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>>> net-tools-1.60-11.ph2

```
Version: $Id: ax25_gr.c,v 1.4 1999/01/05 20:53:21 philip Exp $
```

```
Author: Bernd Eckenfels, <eck@lina.inka.de>  
Copyright 1999 Bernd Eckenfels, Germany  
base on Code from Jonathan Naylor <jsn@Cs.Nott.AC.UK>
```

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procps-ng-3.3.15.tar.xz\procps-ng-3.3.15.tar\procps-ng-3.3.15\mkinstalldirs

mkinstalldirs --- make directory hierarchy
Author: Noah Friedman <friedman@prep.ai.mit.edu>
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procps-ng-3.3.15.tar.xz\procps-ng-3.3.15.tar\procps-ng-3.3.15\pmap.c

pmap.c - print process memory mapping
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line - read one line

Gunnar Ritter, Freiburg i. Br., Germany, December 2000.

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uidparse.c --- Interpret uuid encoded information. This program violates the UUID abstraction barrier by reaching into the guts of a UUID.

Based on libuuid/src/uuid_time.c
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From Simon Josefsson
-- derivated from coreutils m4/warnings.m4

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2.32\login-utils\setpwnam.c

setpwnam.c -- edit an entry in a password database.

(c) 1994 Salvatore Valente <svalente@mit.edu>

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Edited 11/10/96 (DD/MM/YY ;-) by Nicolai Langfeldt (janl@math.uio.no) to read /etc/passwd directly so that passwd, chsh and chfn can work on machines that run NIS (previously YP). Changes will not be made to usernames starting with +.

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Usage:

1) get a struct passwd from getpwnam().

You should assume a struct passwd has an infinite number of fields, so you should not try to create one from scratch.

2) edit the fields you want to edit.

3) call setpwnam() with the edited struct passwd.

A `_normal user_` program should never directly manipulate `etc/passwd` but /use `getpwnam()` and (family, as well as) `setpwnam()`.

But, `setpwnam` was made to `_edit_` the password file. For use by `chfn`, `chsh` and `passwd`. `_I_ _HAVE_` to read and write `/etc/passwd` directly. Let those who say nay be forever silent and think about how `getpwnam` (and family) works on a machine running YP.

Added checks for failure of `malloc()` and removed error reporting to `stderr`, this is a library function and should not print on the screen, but return appropriate error codes.

27-Jan-97 - poe@daimi.aau.dk

Thanks to "two guys named Ian".

\$Author: poer \$

\$Revision: 1.13 \$

\$Date: 1997/06/23 08:26:29 \$

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Python bindings for the libmount library.

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Bison implementation for Yacc-like parsers in C

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Bison interface for Yacc-like parsers in C

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(Mostly) portable public-domain implementation -- D A Gwyn

This implementation of the PWB library `alloca` function, which is used to allocate space off the run-time stack so that it is automatically reclaimed upon procedure exit, was inspired by discussions with J. Q. Johnson of Cornell. J. Otto Tennant <jot@cray.com> contributed the Cray support.

There are some preprocessor constants that can be defined when compiling for your specific system, for improved efficiency; however, the defaults should be okay.

The general concept of this implementation is to keep track of all `alloca`-allocated blocks, and reclaim any that are found to be deeper in the stack than the current invocation. This heuristic does not reclaim storage as soon as it becomes invalid, but it will do so eventually.

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alloca.c -- allocate automatically reclaimed memory
(Mostly) portable public-domain implementation -- D A Gwyn

This implementation of the PWB library alloca function,
which is used to allocate space off the run-time stack so
that it is automatically reclaimed upon procedure exit,
was inspired by discussions with J. Q. Johnson of Cornell.
J.Otto Tennant <jot@cray.com> contributed the Cray support.

There are some preprocessor constants that can
be defined when compiling for your specific system, for
improved efficiency; however, the defaults should be okay.

The general concept of this implementation is to keep
track of all alloca-allocated blocks, and reclaim any
that are found to be deeper in the stack than the current
invocation. This heuristic does not reclaim storage as
soon as it becomes invalid, but it will do so eventually.

As a special case, alloca(0) reclaims storage without
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DRBG: Deterministic Random Bits Generator

Based on NIST Recommended DRBG from NIST SP800-90A with the following properties:

CTR DRBG with DF with AES-128, AES-192, AES-256 cores

Hash DRBG with DF with SHA-1, SHA-256, SHA-384, SHA-512 cores

HMAC DRBG with DF with SHA-1, SHA-256, SHA-384, SHA-512 cores

with and without prediction resistance

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```
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Version 2.1, February 1999

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For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

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Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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----- SECTION 6: GNU Lesser General Public License, V3.0 -----

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Version 3, 29 June 2007

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Mozilla Public License

Version 2.0

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SIL OPEN FONT LICENSE

Version 1.1 - 26 February 2007

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Protocol Buffers for Go with Gadgets

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<http://github.com/gogo/protobuf>

Go support for Protocol Buffers - Google's data interchange format

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```
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  border-radius: $radius-small;
  border-width: 1px;
}
%notice-success,
%notice-info,
%notice-highlight,
%notice-error,
%notice-warning {
  @extend %notice;
}
%notice-success {
  @extend %frame-green-500, %with-passing;
}
%notice-info {
  @extend %frame-blue-500, %with-passing; /* needs a better info button*/
}
```

```

%notice-highlight {
  @extend %frame-gray-800, %with-star;
}
%notice-warning {
  @extend %frame-yellow-500, %with-warning;
}
%notice-error {
  @extend %frame-red-500, %with-critical;
}
%notice-highlight::before {
  /* %with-star, bigger */
  width: 16px;
  height: 16px;
}
%notice-success::before {
  color: $color-success;
}
%notice-info::before {
  color: $color-action; /* change to info */
}
%notice-error::before {
  color: $color-failure;
}
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```

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layout: api

page_title: License - Operator - HTTP API

sidebar_current: api-operator-license

description: |-

The /operator/license endpoints allow for setting and retrieving the Consul Enterprise License.

License - Operator HTTP API

~> ****Enterprise Only!**** This API endpoint and functionality only exists in Consul Enterprise. This is not present in the open source version of Consul.

The licensing functionality described here is available only in [Consul Enterprise](<https://www.hashicorp.com/products/consul/>) version 1.1.0 and later.

Getting the Consul License

This endpoint gets information about the current license.

| Method | Path | Produces |
|--------|-------------------|------------------|
| GET | /operator/license | application/json |

The table below shows this endpoint's support for [blocking queries](/api/features/blocking.html), [consistency modes](/api/features/consistency.html), [agent caching](/api/features/caching.html), and [required ACLs](/api/index.html#authentication).

| Blocking Queries | Consistency Modes | Agent Caching | ACL Required |
|------------------|-------------------|---------------|--------------|
| NO | all | none | none |

Parameters

- dc (string: "") - Specifies the datacenter whose license should be retrieved.

This will default to the datacenter of the agent serving the HTTP request.

This is specified as a URL query parameter.

Sample Request

```
```text
$ curl \
 http://127.0.0.1:8500/v1/operator/license
```
```

Sample Response

```
```json
{
 "Valid": true,
 "License": {
 "license_id": "2afbf681-0d1a-0649-cb6c-333ec9f0989c",
 "customer_id": "0259271d-8ffc-e85e-0830-c0822c1f5f2b",
 "installation_id": "*",
 "issue_time": "2018-05-21T20:03:35.911567355Z",
 "start_time": "2018-05-21T04:00:00Z",
 "expiration_time": "2019-05-22T03:59:59.999Z",
 "product": "consul",
 "flags": {
 "package": "premium"
 },
 "features": [
 "Automated Backups",
 "Automated Upgrades",
 "Enhanced Read Scalability",
 "Network Segments",
 "Redundancy Zone",
 "Advanced Network Federation"
],
 "temporary": false
 },
 "Warnings": []
}
```
```

Updating the Consul License

This endpoint updates the Consul license and returns some of the license contents as well as any warning messages regarding its validity.

| Method | Path | Produces |
|--------|-------------------|------------------|
| PUT | /operator/license | application/json |

The table below shows this endpoint's support for [blocking queries](/api/features/blocking.html), [consistency modes](/api/features/consistency.html), [agent caching](/api/features/caching.html), and [required ACLs](/api/index.html#authentication).

| Blocking Queries | Consistency Modes | Agent Caching | ACL Required |
|------------------|-------------------|---------------|------------------|
| `NO` | `none` | `none` | `operator:write` |

Parameters

- `dc` (string: "") - Specifies the datacenter whose license should be updated. This will default to the datacenter of the agent serving the HTTP request. This is specified as a URL query parameter.

Sample Payload

The payload is the raw license blob.

Sample Request

```

```text
$ curl \
 --request PUT \
 --data @consul.license \
 http://127.0.0.1:8500/v1/operator/license
```

```

Sample Response

```

```json
{
 "Valid": true,
 "License": {
 "license_id": "2afbf681-0d1a-0649-cb6c-333ec9f0989c",
 "customer_id": "0259271d-8ffc-e85e-0830-c0822c1f5f2b",
 "installation_id": "*",
 "issue_time": "2018-05-21T20:03:35.911567355Z",
 "start_time": "2018-05-21T04:00:00Z",
 "expiration_time": "2019-05-22T03:59:59.999Z",
 "product": "consul",
 "flags": {
 "package": "premium"
 },
 },
 "features": [
 "Automated Backups",
 "Automated Upgrades",
]
}
```

```

```
    "Enhanced Read Scalability",
    "Network Segments",
    "Redundancy Zone",
    "Advanced Network Federation"
  ],
  "temporary": false
},
"Warnings": []
}
...

```

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```
%notice {
  position: relative;
  padding: 1em;
  padding-left: 45px;
  margin-bottom: 1em;
}
%notice::before {
  position: absolute;
  left: 20px;
  top: 18px;
  margin-top: 0;
}

```

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```
@import './notice/index';
.notice.warning {
  @extend %notice-warning;
}
.notice.info {
  @extend %notice-info;
}
.notice.policy-management {
  @extend %notice-highlight;
}
```

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mgo - MongoDB driver for Go

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=====
Portions of the client are based on code at:

<https://github.com/google/go-github/>

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procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem proc.

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*/
```

```
/**
```

```
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```

```
*/
```

```
package datatypes
```

```
// no documentation yet
```

```
type Legal_RegulatedWorkload struct {
    Entity
```

```
// no documentation yet
```

```
Account *Account `json:"account,omitempty" xmlrpc:"account,omitempty"``
```

```
// no documentation yet
```

```
AccountId *int `json:"accountId,omitempty" xmlrpc:"accountId,omitempty"``
```

```
// no documentation yet
```

```
EnabledFlag *bool `json:"enabledFlag,omitempty" xmlrpc:"enabledFlag,omitempty"``
```

```
// no documentation yet
```

```
Id *int `json:"id,omitempty" xmlrpc:"id,omitempty"``
```

```
// no documentation yet
```

```
Type *Legal_RegulatedWorkload_Type `json:"type,omitempty" xmlrpc:"type,omitempty"``
```

```
// no documentation yet
```

```
WorkloadTypeId *int `json:"workloadTypeId,omitempty" xmlrpc:"workloadTypeId,omitempty"``
```

```
}
```

```
// no documentation yet
```

```
type Legal_RegulatedWorkload_Type struct {
    Entity
```

```
// no documentation yet
```

```
Id *int `json:"id,omitempty" xmlrpc:"id,omitempty"``
```

```
// no documentation yet
KeyName *string `json:"keyName,omitempty" xmlrpc:"keyName,omitempty"`

// no documentation yet
Name *string `json:"name,omitempty" xmlrpc:"name,omitempty"`
}
```

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Portions of the client are based on code at:

<https://github.com/google/go-github/> and

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1.133 Is of 4.91

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1.134 libsecret 0.18.8-2

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1.135 x-sys 0.5.0

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1.136 mesa 19.1.4

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References

1. <https://www.opengl.org/>
2. <https://www.sgi.com/>
3. <https://www.sgi.com/>

1.137 leiningen-standalone 2.9.3-1

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1.138 zlib 1.2.11

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1.139 libxml2 2.10.4

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1.140 nghttp2 1.51.0

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1.141 fdisk 2.34.0

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```
@var{signature of Ty Coon}, 1 April 1990
Ty Coon, President of Vice
@end smallexample
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```

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Version 3, 29 June 2007

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```
@example
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`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
@var{signature of Ty Coon}, 1 April 1989
Ty Coon, President of Vice
@end example
```

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.

Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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1.149 gnutls 3.7.8

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```
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## Constant-time SSSE3 AES core implementation.  
## version 0.1  
##  
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```

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Version 3, 29 June 2007

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If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

```
This program is free software: you can redistribute it and/or modify  
it under the terms of the GNU General Public License as published by  
the Free Software Foundation, either version 3 of the License, or  
(at your option) any later version.
```

```
This program is distributed in the hope that it will be useful,  
but WITHOUT ANY WARRANTY; without even the implied warranty of  
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the  
GNU General Public License for more details.
```

You should have received a copy of the GNU General Public License

along with this program. If not, see <http://www.gnu.org/licenses/>.

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

```
<program> Copyright (C) <year> <name of author>  
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <http://www.gnu.org/licenses/>.

The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <http://www.gnu.org/philosophy/why-not-lgpl.html>.

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Version 2, June 1991

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[This is the first released version of the library GPL. It is
numbered 2 because it goes with version 2 of the ordinary GPL.]

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For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that

they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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0. This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under

copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that,

in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit

modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you

distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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Appendix: How to Apply These Terms to Your New Libraries

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You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

1.152 grpc 1.2.13

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1.153 libseccomp 2.4.1-2

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Version 2.1, February 1999

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Preamble

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it if you want it; that you can change the software and use pieces of
it in new free programs; and that you are informed that you can do
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To protect your rights, we need to make restrictions that forbid

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For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less

of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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1.154 libxtst 1.2.3-2

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1.155 cryptsetup 2.5.0

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1.156 rsync 3.1.3

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1.157 iputils 20180629.f6aac8d-4

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1.158 coreutils 9.1

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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page

@subheading How to Apply These Terms to Your New Libraries

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@var{signature of Ty Coon}, 1 April 1990

Ty Coon, President of Vice

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1.162 Isb-release 1.4 15

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```

1.163 iptables 1.8.8

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```

Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/eatables-nft-8-gz/eatables-nft.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/arptables-nft-8-gz/arptables-nft.8
```

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Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/xtables-nft-8-gz/xtables-nft.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/xtables-translate-8-gz/xtables-translate.8
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```

```
/*
* libipq.h
*
* IPQ library for userspace.
*
* Author: James Morris <jmorris@intercode.com.au>
*
* Copyright (c) 2000-2001 Netfilter Core Team
*
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*
*/
```

Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-xz/usr/include/libipq.h
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```

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```

Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/arptables-nft-save-8-gz/arptables-nft-save.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/iptables-save-8-gz/iptables-save.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
```

```
xz/usr/share/man/man1/iptables-xml-1-gz/iptables-xml.1
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/iptables-8-gz/iptables.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/arptables-nft-restore-8-gz/arptables-nft-restore.8
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/iptables-restore-8-gz/iptables-restore.8
No license file was found, but licenses were detected in source scan.
```

```
# $FreeBSD: head/etc/pf.os 258865 2013-12-03 04:32:02Z eadler $
# $OpenBSD: pf.os,v 1.27 2016/09/03 17:08:57 sthen Exp $
# passive OS fingerprinting
# -----
#
# SYN signatures. Those signatures work for SYN packets only (duh!).
#
# (C) Copyright 2000-2003 by Michal Zalewski <lcamtuf@coredump.cx>
# (C) Copyright 2003 by Mike Frantzen <frantzen@w4g.org>
#
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#
#
# This fingerprint database is adapted from Michal Zalewski's p0f passive
# operating system package. The last database sync was from a Nov 3 2003
# p0f.fp.
#
#
# Each line in this file specifies a single fingerprint. Please read the
# information below carefully before attempting to append any signatures
# reported as UNKNOWN to this file to avoid mistakes.
#
# We use the following set metrics for fingerprinting:
#
# - Window size (WSS) - a highly OS dependent setting used for TCP/IP
# performance control (max. amount of data to be sent without ACK).
# Some systems use a fixed value for initial packets. On other
# systems, it is a multiple of MSS or MTU (MSS+40). In some rare
# cases, the value is just arbitrary.
```

```
#
# NEW SIGNATURE: if p0f reported a special value of 'Snn', the number
# appears to be a multiple of MSS (MSS*nn); a special value of 'Tnn'
# means it is a multiple of MTU ((MSS+40)*nn). Unless you notice the
# value of nn is not fixed (unlikely), just copy the Snn or Tnn token
# literally. If you know this device has a simple stack and a fixed
# MTU, you can however multiply S value by MSS, or T value by MSS+40,
# and put it instead of Snn or Tnn.
#
# If WSS otherwise looks like a fixed value (for example a multiple
# of two), or if you can confirm the value is fixed, please quote
# it literally. If there's no apparent pattern in WSS chosen, you
# should consider wildcarding this value.
#
# - Overall packet size - a function of all IP and TCP options and bugs.
#
# NEW SIGNATURE: Copy this value literally.
#
# - Initial TTL - We check the actual TTL of a received packet. It can't
# be higher than the initial TTL, and also shouldn't be dramatically
# lower (maximum distance is defined as 40 hops).
#
# NEW SIGNATURE: *Never* copy TTL from a p0f-reported signature literally.
# You need to determine the initial TTL. The best way to do it is to
# check the documentation for a remote system, or check its settings.
# A fairly good method is to simply round the observed TTL up to
# 32, 64, 128, or 255, but it should be noted that some obscure devices
# might not use round TTLs (in particular, some shoddy appliances use
# "original" initial TTL settings). If not sure, you can see how many
# hops you're away from the remote party with traceroute or mtr.
#
# - Don't fragment flag (DF) - some modern OSes set this to implement PMTU
# discovery. Others do not bother.
#
# NEW SIGNATURE: Copy this value literally.
#
# - Maximum segment size (MSS) - this setting is usually link-dependent. P0f
# uses it to determine link type of the remote host.
#
# NEW SIGNATURE: Always wildcard this value, except for rare cases when
# you have an appliance with a fixed value, know the system supports only
# a very limited number of network interface types, or know the system
# is using a value it pulled out of nowhere. Specific unique MSS
# can be used to tell Google crawlbots from the rest of the population.
#
# - Window scaling (WSALE) - this feature is used to scale WSS.
# It extends the size of a TCP/IP window to 32 bits. Some modern
# systems implement this feature.
```

```

#
# NEW SIGNATURE: Observe several signatures. Initial WSCALE is often set
# to zero or other low value. There's usually no need to wildcard this
# parameter.
#
# - Timestamp - some systems that implement timestamps set them to
# zero in the initial SYN. This case is detected and handled appropriately.
#
# - Selective ACK permitted - a flag set by systems that implement
# selective ACK functionality.
#
# - The sequence of TCP all options (MSS, window scaling, selective ACK
# permitted, timestamp, NOP). Other than the options previously
# discussed, p0f also checks for timestamp option (a silly
# extension to broadcast your uptime ;-), NOP options (used for
# header padding) and sackOK option (selective ACK feature).
#
# NEW SIGNATURE: Copy the sequence literally.
#
# To wildcard any value (except for initial TTL or TCP options), replace
# it with '*'. You can also use a modulo operator to match any values
# that divide by nnn - '%nnn'.
#
# Fingerprint entry format:
#
# www:ttt:D:ss:OOO...:OS:Version:Subtype:Details
#
# wwww - window size (can be *, %nnn, Snn or Tnn). The special values
# "S" and "T" which are a multiple of MSS or a multiple of MTU
# respectively.
# ttt - initial TTL
# D - don't fragment bit (0 - not set, 1 - set)
# ss - overall SYN packet size
# OOO - option value and order specification (see below)
# OS - OS genre (Linux, Solaris, Windows)
# Version - OS Version (2.0.27 on x86, etc)
# Subtype - OS subtype or patchlevel (SP3, lo0)
# details - Generic OS details
#
# If OS genre starts with '*', p0f will not show distance, link type
# and timestamp data. It is useful for userland TCP/IP stacks of
# network scanners and so on, where many settings are randomized or
# bogus.
#
# If OS genre starts with @, it denotes an approximate hit for a group
# of operating systems (signature reporting still enabled in this case).
# Use this feature at the end of this file to catch cases for which
# you don't have a precise match, but can tell it's Windows or FreeBSD

```

```
# or whatnot by looking at, say, flag layout alone.
#
# Option block description is a list of comma or space separated
# options in the order they appear in the packet:
#
# N - NOP option
# Wnnn - window scaling option, value nnn (or * or %nnn)
# Mnnn - maximum segment size option, value nnn (or * or %nnn)
# S - selective ACK OK
# T - timestamp
# T0 - timestamp with a zero value
#
# To denote no TCP options, use a single '!'.
#
# Please report any additions to this file, or any inaccuracies or
# problems spotted, to the maintainers: lcamtuf@coredump.cx,
# frantzen@openbsd.org and bugs@openbsd.org with a tcpdump packet
# capture of the relevant SYN packet(s)
#
# A test and submission page is available at
# http://lcamtuf.coredump.cx/p0f-help/
#
#
# WARNING WARNING WARNING
# -----
#
# Do not add a system X as OS Y just because NMAP says so. It is often
# the case that X is a NAT firewall. While nmap is talking to the
# device itself, p0f is fingerprinting the guy behind the firewall
# instead.
#
# When in doubt, use common sense, don't add something that looks like
# a completely different system as Linux or FreeBSD or LinkSys router.
# Check DNS name, establish a connection to the remote host and look
# at SYN+ACK - does it look similar?
#
# Some users tweak their TCP/IP settings - enable or disable RFC1323
# functionality, enable or disable timestamps or selective ACK,
# disable PMTU discovery, change MTU and so on. Always compare a new rule
# to other fingerprints for this system, and verify the system isn't
# "customized" before adding it. It is OK to add signature variants
# caused by a commonly used software (personal firewalls, security
# packages, etc), but it makes no sense to try to add every single
# possible /proc/sys/net/ipv4 tweak on Linux or so.
#
# KEEP IN MIND: Some packet firewalls configured to normalize outgoing
# traffic (OpenBSD pf with "scrub" enabled, for example) will, well,
# normalize packets. Signatures will not correspond to the originating
```



```

# system (and probably not quite to the firewall either).
#
# NOTE: Try to keep this file in some reasonable order, from most to
# least likely systems. This will speed up operation. Also keep most
# generic and broad rules near the end.
#

#####
# Standard OS signatures #
#####

# ----- AIX -----

# AIX is first because its signatures are close to NetBSD, MacOS X and
# Linux 2.0, but it uses a fairly rare MSSes, at least sometimes...
# This is a shoddy hack, though.

45046:64:0:44:M*: AIX:4.3::AIX 4.3
16384:64:0:44:M512: AIX:4.3:2-3:AIX 4.3.2 and earlier

16384:64:0:60:M512,N,W%2,N,N,T: AIX:4.3:3:AIX 4.3.3-5.2
16384:64:0:60:M512,N,W%2,N,N,T: AIX:5.1-5.2::AIX 4.3.3-5.2
32768:64:0:60:M512,N,W%2,N,N,T: AIX:4.3:3:AIX 4.3.3-5.2
32768:64:0:60:M512,N,W%2,N,N,T: AIX:5.1-5.2::AIX 4.3.3-5.2
65535:64:0:60:M512,N,W%2,N,N,T: AIX:4.3:3:AIX 4.3.3-5.2
65535:64:0:60:M512,N,W%2,N,N,T: AIX:5.1-5.2::AIX 4.3.3-5.2
65535:64:0:64:M*,N,W1,N,N,T,N,N,S: AIX:5.3:ML1:AIX 5.3 ML1

# ----- Linux -----

# S1:64:0:44:M*:A: Linux:1.2::Linux 1.2.x (XXX quirks support)
512:64:0:44:M*: Linux:2.0:3x:Linux 2.0.3x
16384:64:0:44:M*: Linux:2.0:3x:Linux 2.0.3x

# Endian snafu! Nelson says "ha-ha":
2:64:0:44:M*: Linux:2.0:3x:Linux 2.0.3x (MkLinux) on Mac
64:64:0:44:M*: Linux:2.0:3x:Linux 2.0.3x (MkLinux) on Mac

S4:64:1:60:M1360,S,T,N,W0: Linux:google::Linux (Google crawler)

S2:64:1:60:M*,S,T,N,W0: Linux:2.4::Linux 2.4 (big boy)
S3:64:1:60:M*,S,T,N,W0: Linux:2.4:18-21:Linux 2.4.18 and newer
S4:64:1:60:M*,S,T,N,W0: Linux:2.4::Linux 2.4/2.6 <= 2.6.7
S4:64:1:60:M*,S,T,N,W0: Linux:2.6:1-7:Linux 2.4/2.6 <= 2.6.7

S4:64:1:60:M*,S,T,N,W5: Linux:2.6::Linux 2.6 (newer, 1)
S4:64:1:60:M*,S,T,N,W6: Linux:2.6::Linux 2.6 (newer, 2)

```

S4:64:1:60:M*,S,T,N,W7: Linux:2.6::Linux 2.6 (newer, 3)

T4:64:1:60:M*,S,T,N,W7: Linux:2.6::Linux 2.6 (newer, 4)

S10:64:1:60:M*,S,T,N,W4: Linux:3.0::Linux 3.0

S3:64:1:60:M*,S,T,N,W1: Linux:2.5::Linux 2.5 (sometimes 2.4)

S4:64:1:60:M*,S,T,N,W1: Linux:2.5-2.6::Linux 2.5/2.6

S3:64:1:60:M*,S,T,N,W2: Linux:2.5::Linux 2.5 (sometimes 2.4)

S4:64:1:60:M*,S,T,N,W2: Linux:2.5::Linux 2.5 (sometimes 2.4)

S20:64:1:60:M*,S,T,N,W0: Linux:2.2:20-25:Linux 2.2.20 and newer

S22:64:1:60:M*,S,T,N,W0: Linux:2.2::Linux 2.2

S11:64:1:60:M*,S,T,N,W0: Linux:2.2::Linux 2.2

Popular cluster config scripts disable timestamps and

selective ACK:

S4:64:1:48:M1460,N,W0: Linux:2.4:cluster:Linux 2.4 in cluster

This needs to be investigated. On some systems, WSS

is selected as a multiple of MTU instead of MSS. I got

many submissions for this for many late versions of 2.4:

T4:64:1:60:M1412,S,T,N,W0: Linux:2.4::Linux 2.4 (late, uncommon)

This happens only over loopback, but let's make folks happy:

32767:64:1:60:M16396,S,T,N,W0: Linux:2.4:lo0:Linux 2.4 (local)

S8:64:1:60:M3884,S,T,N,W0: Linux:2.2:lo0:Linux 2.2 (local)

Opera visitors:

16384:64:1:60:M*,S,T,N,W0: Linux:2.2:Opera:Linux 2.2 (Opera?)

32767:64:1:60:M*,S,T,N,W0: Linux:2.4:Opera:Linux 2.4 (Opera?)

Some fairly common mods:

S4:64:1:52:M*,N,N,S,N,W0: Linux:2.4:ts:Linux 2.4 w/o timestamps

S22:64:1:52:M*,N,N,S,N,W0: Linux:2.2:ts:Linux 2.2 w/o timestamps

----- FreeBSD -----

16384:64:1:44:M*: FreeBSD:2.0-2.2::FreeBSD 2.0-4.2

16384:64:1:44:M*: FreeBSD:3.0-3.5::FreeBSD 2.0-4.2

16384:64:1:44:M*: FreeBSD:4.0-4.2::FreeBSD 2.0-4.2

16384:64:1:60:M*,N,W0,N,N,T: FreeBSD:4.4::FreeBSD 4.4

1024:64:1:60:M*,N,W0,N,N,T: FreeBSD:4.4::FreeBSD 4.4

57344:64:1:44:M*: FreeBSD:4.6-4.8:noRFC1323:FreeBSD 4.6-4.8 (no RFC1323)

57344:64:1:60:M*,N,W0,N,N,T: FreeBSD:4.6-4.9::FreeBSD 4.6-4.9

```

32768:64:1:60:M*,N,W0,N,N,T: FreeBSD:4.8-4.11::FreeBSD 4.8-5.1 (or MacOS X)
32768:64:1:60:M*,N,W0,N,N,T: FreeBSD:5.0-5.1::FreeBSD 4.8-5.1 (or MacOS X)
65535:64:1:60:M*,N,W0,N,N,T: FreeBSD:4.8-4.11::FreeBSD 4.8-5.2 (or MacOS X)
65535:64:1:60:M*,N,W0,N,N,T: FreeBSD:5.0-5.2::FreeBSD 4.8-5.2 (or MacOS X)
65535:64:1:60:M*,N,W1,N,N,T: FreeBSD:4.7-4.11::FreeBSD 4.7-5.2
65535:64:1:60:M*,N,W1,N,N,T: FreeBSD:5.0-5.2::FreeBSD 4.7-5.2

# XXX need quirks support
# 65535:64:1:60:M*,N,W0,N,N,T:Z:FreeBSD:5.1-5.4::5.1-current (1)
# 65535:64:1:60:M*,N,W1,N,N,T:Z:FreeBSD:5.1-5.4::5.1-current (2)
# 65535:64:1:60:M*,N,W2,N,N,T:Z:FreeBSD:5.1-5.4::5.1-current (3)
# 65535:64:1:44:M*:Z:FreeBSD:5.2::FreeBSD 5.2 (no RFC1323)

# 16384:64:1:60:M*,N,N,N,N,N,T:FreeBSD:4.4:noTS:FreeBSD 4.4 (w/o timestamps)

# ----- NetBSD -----

16384:64:0:60:M*,N,W0,N,N,T: NetBSD:1.3::NetBSD 1.3
65535:64:0:60:M*,N,W0,N,N,T0: NetBSD:1.6:opera:NetBSD 1.6 (Opera)
16384:64:0:60:M*,N,W0,N,N,T0: NetBSD:1.6::NetBSD 1.6
16384:64:1:60:M*,N,W0,N,N,T0: NetBSD:1.6:df:NetBSD 1.6 (DF)
65535:64:1:60:M*,N,W1,N,N,T0: NetBSD:1.6::NetBSD 1.6W-current (DF)
65535:64:1:60:M*,N,W0,N,N,T0: NetBSD:1.6::NetBSD 1.6X (DF)
32768:64:1:60:M*,N,W0,N,N,T0: NetBSD:1.6:randomization:NetBSD 1.6ZH-current (w/ ip_id randomization)

# ----- OpenBSD -----

16384:64:0:60:M*,N,W0,N,N,T: OpenBSD:2.6::NetBSD 1.3 (or OpenBSD 2.6)
16384:64:1:64:M*,N,N,S,N,W0,N,N,T: OpenBSD:3.0-4.8::OpenBSD 3.0-4.8
16384:64:0:64:M*,N,N,S,N,W0,N,N,T: OpenBSD:3.0-4.8:no-df:OpenBSD 3.0-4.8 (scrub no-df)
57344:64:1:64:M*,N,N,S,N,W0,N,N,T: OpenBSD:3.3-4.0::OpenBSD 3.3-4.0
57344:64:0:64:M*,N,N,S,N,W0,N,N,T: OpenBSD:3.3-4.0:no-df:OpenBSD 3.3-4.0 (scrub no-df)

65535:64:1:64:M*,N,N,S,N,W0,N,N,T: OpenBSD:3.0-4.0:opera:OpenBSD 3.0-4.0 (Opera)

16384:64:1:64:M*,N,N,S,N,W3,N,N,T: OpenBSD:4.9::OpenBSD 4.9
16384:64:0:64:M*,N,N,S,N,W3,N,N,T: OpenBSD:4.9:no-df:OpenBSD 4.9 (scrub no-df)

16384:64:1:64:M*,N,N,S,N,W6,N,N,T: OpenBSD:6.1::OpenBSD 6.1
16384:64:0:64:M*,N,N,S,N,W6,N,N,T: OpenBSD:6.1:no-df:OpenBSD 6.1 (scrub no-df)

# ----- DragonFly BSD -----

57344:64:1:60:M*,N,W0,N,N,T: DragonFly:1.0:A:DragonFly 1.0A
57344:64:0:64:M*,N,W0,N,N,S,N,N,T: DragonFly:1.2-1.12::DragonFly 1.2-1.12
5840:64:1:60:M*,S,T,N,W4: DragonFly:2.0-2.1::DragonFly 2.0-2.1
57344:64:0:64:M*,N,W0,N,N,S,N,N,T: DragonFly:2.2-2.3::DragonFly 2.2-2.3
57344:64:0:64:M*,N,W5,N,N,S,N,N,T: DragonFly:2.4-2.7::DragonFly 2.4-2.7

```

----- Solaris -----

S17:64:1:64:N,W3,N,N,T0,N,N,S,M*: Solaris:8:RFC1323:Solaris 8 RFC1323

S17:64:1:48:N,N,S,M*: Solaris:8::Solaris 8

S17:255:1:44:M*: Solaris:2.5-2.7::Solaris 2.5 to 7

S6:255:1:44:M*: Solaris:2.6-2.7::Solaris 2.6 to 7

S23:255:1:44:M*: Solaris:2.5:1:Solaris 2.5.1

S34:64:1:48:M*,N,N,S: Solaris:2.9::Solaris 9

S44:255:1:44:M*: Solaris:2.7::Solaris 7

4096:64:0:44:M1460: SunOS:4.1::SunOS 4.1.x

S34:64:1:52:M*,N,W0,N,N,S: Solaris:10:beta:Solaris 10 (beta)

32850:64:1:64:M*,N,N,T,N,W1,N,N,S: Solaris:10::Solaris 10 1203

----- IRIX -----

49152:64:0:44:M*: IRIX:6.4::IRIX 6.4

61440:64:0:44:M*: IRIX:6.2-6.5::IRIX 6.2-6.5

49152:64:0:52:M*,N,W2,N,N,S: IRIX:6.5:RFC1323:IRIX 6.5 (RFC1323)

49152:64:0:52:M*,N,W3,N,N,S: IRIX:6.5:RFC1323:IRIX 6.5 (RFC1323)

61440:64:0:48:M*,N,N,S: IRIX:6.5:12-21:IRIX 6.5.12 - 6.5.21

49152:64:0:48:M*,N,N,S: IRIX:6.5:15-21:IRIX 6.5.15 - 6.5.21

49152:60:0:64:M*,N,W2,N,N,T,N,N,S: IRIX:6.5:IP27:IRIX 6.5 IP27

----- Tru64 -----

32768:64:1:48:M*,N,W0: Tru64:4.0::Tru64 4.0 (or OS/2 Warp 4)

32768:64:0:48:M*,N,W0: Tru64:5.0::Tru64 5.0

8192:64:0:44:M1460: Tru64:5.1:noRFC1323:Tru64 6.1 (no RFC1323) (or QNX 6)

61440:64:0:48:M*,N,W0: Tru64:5.1a:JP4:Tru64 v5.1a JP4 (or OpenVMS 7.x on Compaq 5.x stack)

----- OpenVMS -----

6144:64:1:60:M*,N,W0,N,N,T: OpenVMS:7.2::OpenVMS 7.2 (Multinet 4.4 stack)

----- MacOS -----

XXX Need EOL tcp opt support

S2:255:1:48:M*,W0,E::MacOS:8.6 classic

XXX some of these use EOL too

16616:255:1:48:M*,W0: MacOS:7.3-7.6:OTTCP:MacOS 7.3-8.6 (OTTCP)

16616:255:1:48:M*,W0: MacOS:8.0-8.6:OTTCP:MacOS 7.3-8.6 (OTTCP)
16616:255:1:48:M*,N,N,N: MacOS:8.1-8.6:OTTCP:MacOS 8.1-8.6 (OTTCP)
32768:255:1:48:M*,W0,N: MacOS:9.0-9.2::MacOS 9.0-9.2
65535:255:1:48:M*,N,N,N,N: MacOS:9.1::MacOS 9.1 (OT 2.7.4)

----- Windows -----

Windows TCP/IP stack is a mess. For most recent XP, 2000 and
even 98, the patchlevel, not the actual OS version, is more
relevant to the signature. They share the same code, so it would
seem. Luckily for us, almost all Windows 9x boxes have an
awkward MSS of 536, which I use to tell one from another
in most difficult cases.

8192:32:1:44:M*: Windows:3.11::Windows 3.11 (Tucows)
S44:64:1:64:M*,N,W0,N,N,T0,N,N,S: Windows:95::Windows 95
8192:128:1:64:M*,N,W0,N,N,T0,N,N,S: Windows:95:b:Windows 95b

There were so many tweaking tools and so many stack versions for
Windows 98 it is no longer possible to tell them from each other
without some very serious research. Until then, there's an insane
number of signatures, for your amusement:

S44:32:1:48:M*,N,N,S: Windows:98:lowTTL:Windows 98 (low TTL)
8192:32:1:48:M*,N,N,S: Windows:98:lowTTL:Windows 98 (low TTL)
%8192:64:1:48:M536,N,N,S: Windows:98::Windows 98
%8192:128:1:48:M536,N,N,S: Windows:98::Windows 98
S4:64:1:48:M*,N,N,S: Windows:98::Windows 98
S6:64:1:48:M*,N,N,S: Windows:98::Windows 98
S12:64:1:48:M*,N,N,S: Windows:98::Windows 98
T30:64:1:64:M1460,N,W0,N,N,T0,N,N,S: Windows:98::Windows 98
32767:64:1:48:M*,N,N,S: Windows:98::Windows 98
37300:64:1:48:M*,N,N,S: Windows:98::Windows 98
46080:64:1:52:M*,N,W3,N,N,S: Windows:98:RFC1323:Windows 98 (RFC1323)
65535:64:1:44:M*: Windows:98:noSack:Windows 98 (no sack)
S16:128:1:48:M*,N,N,S: Windows:98::Windows 98
S16:128:1:64:M*,N,W0,N,N,T0,N,N,S: Windows:98::Windows 98
S26:128:1:48:M*,N,N,S: Windows:98::Windows 98
T30:128:1:48:M*,N,N,S: Windows:98::Windows 98
32767:128:1:52:M*,N,W0,N,N,S: Windows:98::Windows 98
60352:128:1:48:M*,N,N,S: Windows:98::Windows 98
60352:128:1:64:M*,N,W2,N,N,T0,N,N,S: Windows:98::Windows 98

What's with 1414 on NT?

T31:128:1:44:M1414: Windows:NT:4.0:Windows NT 4.0 SP6a
64512:128:1:44:M1414: Windows:NT:4.0:Windows NT 4.0 SP6a
8192:128:1:44:M*: Windows:NT:4.0:Windows NT 4.0 (older)

Windows XP and 2000. Most of the signatures that were
either dubious or non-specific (no service pack data)
were deleted and replaced with generics at the end.

65535:128:1:48:M*,N,N,S: Windows:2000:SP4:Windows 2000 SP4, XP SP1
65535:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows 2000 SP4, XP SP1
%8192:128:1:48:M*,N,N,S: Windows:2000:SP2+:Windows 2000 SP2, XP SP1 (seldom 98 4.10.2222)
%8192:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows 2000 SP2, XP SP1 (seldom 98 4.10.2222)
S20:128:1:48:M*,N,N,S: Windows:2000::Windows 2000/XP SP3
S20:128:1:48:M*,N,N,S: Windows:XP:SP3:Windows 2000/XP SP3
S45:128:1:48:M*,N,N,S: Windows:2000:SP4:Windows 2000 SP4, XP SP 1
S45:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows 2000 SP4, XP SP 1
40320:128:1:48:M*,N,N,S: Windows:2000:SP4:Windows 2000 SP4

S6:128:1:48:M*,N,N,S: Windows:2000:SP2:Windows XP, 2000 SP2+
S6:128:1:48:M*,N,N,S: Windows:XP::Windows XP, 2000 SP2+
S12:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows XP SP1
S44:128:1:48:M*,N,N,S: Windows:2000:SP3:Windows Pro SP1, 2000 SP3
S44:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows Pro SP1, 2000 SP3
64512:128:1:48:M*,N,N,S: Windows:2000:SP3:Windows SP1, 2000 SP3
64512:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows SP1, 2000 SP3
32767:128:1:48:M*,N,N,S: Windows:2000:SP4:Windows SP1, 2000 SP4
32767:128:1:48:M*,N,N,S: Windows:XP:SP1:Windows SP1, 2000 SP4

8192:128:1:52:M*,N,W2,N,N,S: Windows:Vista::Windows Vista/7

Odds, ends, mods:

S52:128:1:48:M1260,N,N,S: Windows:2000:cisco:Windows XP/2000 via Cisco
S52:128:1:48:M1260,N,N,S: Windows:XP:cisco:Windows XP/2000 via Cisco
65520:128:1:48:M*,N,N,S: Windows:XP::Windows XP bare-bone
16384:128:1:52:M536,N,W0,N,N,S: Windows:2000:ZoneAlarm:Windows 2000 w/ZoneAlarm?
2048:255:0:40:.: Windows:.NET::Windows .NET Enterprise Server

44620:64:0:48:M*,N,N,S: Windows:ME::Windows ME no SP (?)
S6:255:1:48:M536,N,N,S: Windows:95:winsock2:Windows 95 winsock 2
32768:32:1:52:M1460,N,W0,N,N,S: Windows:2003:AS:Windows 2003 AS

No need to be more specific, it passes:

:128:1:48:M,N,N,S:U:-Windows:XP/2000 while downloading (leak!) XXX quirk
there is an equiv similar generic sig w/o the quirk

----- HP/UX -----

32768:64:1:44:M*: HP-UX:B.10.20::HP-UX B.10.20
32768:64:0:48:M*,W0,N: HP-UX:11.0::HP-UX 11.0

```

32768:64:1:48:M*,W0,N: HP-UX:11.10::HP-UX 11.0 or 11.11
32768:64:1:48:M*,W0,N: HP-UX:11.11::HP-UX 11.0 or 11.11

# Whoa. Hardcore WSS.
0:64:0:48:M*,W0,N: HP-UX:B.11.00:A:HP-UX B.11.00 A (RFC1323)

# ----- RiscOS -----

# We don't yet support the ?12 TCP option
#16384:64:1:68:M1460,N,W0,N,N,T,N,N,?12: RISCOS:3.70-4.36::RISC OS 3.70-4.36
12288:32:0:44:M536: RISC OS:3.70:4.10:RISC OS 3.70 inet 4.10

# XXX quirk
# 4096:64:1:56:M1460,N,N,T:T: RISC OS:3.70:freenet:RISC OS 3.70 freenet 2.00

# ----- BSD/OS -----

# Once again, power of two WSS is also shared by MacOS X with DF set
8192:64:1:60:M1460,N,W0,N,N,T: BSD/OS:3.1::BSD/OS 3.1-4.3 (or MacOS X 10.2 w/DF)
8192:64:1:60:M1460,N,W0,N,N,T: BSD/OS:4.0-4.3::BSD/OS 3.1-4.3 (or MacOS X 10.2)

# ----- NewtonOS -----

4096:64:0:44:M1420: NewtonOS:2.1::NewtonOS 2.1

# ----- NeXTSTEP -----

S4:64:0:44:M1024: NeXTSTEP:3.3::NeXTSTEP 3.3
S8:64:0:44:M512: NeXTSTEP:3.3::NeXTSTEP 3.3

# ----- BeOS -----

1024:255:0:48:M*,N,W0: BeOS:5.0-5.1::BeOS 5.0-5.1
12288:255:0:44:M1402: BeOS:5.0::BeOS 5.0.x

# ----- OS/400 -----

8192:64:1:60:M1440,N,W0,N,N,T: OS/400:VR4::OS/400 VR4/R5
8192:64:1:60:M1440,N,W0,N,N,T: OS/400:VR5::OS/400 VR4/R5
4096:64:1:60:M1440,N,W0,N,N,T: OS/400:V4R5:CF67032:OS/400 V4R5 + CF67032

# XXX quirk
# 28672:64:0:44:M1460:A:OS/390:?

# ----- ULTRIX -----

```

16384:64:0:40:: ULTRIX:4.5::ULTRIX 4.5

----- QNX -----

S16:64:0:44:M512: QNX::QNX demodisk

----- Novell -----

16384:128:1:44:M1460: Novell:NetWare:5.0:Novel Netware 5.0

6144:128:1:44:M1460: Novell:IntranetWare:4.11:Novell IntranetWare 4.11

6144:128:1:44:M1368: Novell:BorderManager::Novell BorderManager ?

6144:128:1:52:M*,W0,N,S,N,N: Novell:Netware:6:Novell Netware 6 SP3

----- SCO -----

S3:64:1:60:M1460,N,W0,N,N,T: SCO:UnixWare:7.1:SCO UnixWare 7.1

S17:64:1:60:M1380,N,W0,N,N,T: SCO:UnixWare:7.1:SCO UnixWare 7.1.3 MP3

S23:64:1:44:M1380: SCO:OpenServer:5.0:SCO OpenServer 5.0

----- DOS -----

2048:255:0:44:M536: DOS:WATTCP:1.05:DOS Arachne via WATTCP/1.05

T2:255:0:44:M984: DOS:WATTCP:1.05Arachne:Arachne via WATTCP/1.05 (eepro)

----- OS/2 -----

S56:64:0:44:M512: OS/2:4::OS/2 4

28672:64:0:44:M1460: OS/2:4::OS/2 Warp 4.0

----- TOPS-20 -----

Another hardcore MSS, one of the ACK leakers hunted down.

XXX QUIRK 0:64:0:44:M1460:A:TOPS-20:version 7

0:64:0:44:M1460: TOPS-20:7::TOPS-20 version 7

----- FreeMiNT -----

S44:255:0:44:M536: FreeMiNT:1:16A:FreeMiNT 1 patch 16A (Atari)

----- AMIGA -----

XXX TCP option 12

S32:64:1:56:M*,N,N,S,N,N,?12::AMIGA:3.9 BB2 with Miami stack

----- Plan9 -----

65535:255:0:48:M1460,W0,N: Plan9:4::Plan9 edition 4

----- AMIGAOS -----

16384:64:1:48:M1560,N,N,S: AMIGAOS:3.9::AMIGAOS 3.9 BB2 MiamiDX

#####

Appliance / embedded / other signatures

#####

----- Firewalls / routers -----

S12:64:1:44:M1460: @Checkpoint::Checkpoint (unknown 1)

S12:64:1:48:N,N,S,M1460: @Checkpoint::Checkpoint (unknown 2)

4096:32:0:44:M1460: ExtremeWare:4.x::ExtremeWare 4.x

XXX TCP option 12

S32:64:0:68:M512,N,W0,N,N,T,N,N,?12::Nokia:IPSO w/Checkpoint NG FP3

S16:64:0:68:M1024,N,W0,N,N,T,N,N,?12::Nokia:IPSO 3.7 build 026

S4:64:1:60:W0,N,S,T,M1460: FortiNet:FortiGate:50:FortiNet FortiGate 50

8192:64:1:44:M1460: Eagle::Eagle Secure Gateway

S52:128:1:48:M1260,N,N,N,N: LinkSys:WRV54G::LinkSys WRV54G VPN router

----- Switches and other stuff -----

4128:255:0:44:M*: Cisco::Cisco Catalyst 3500, 7500 etc

S8:255:0:44:M*: Cisco:12008::Cisco 12008

60352:128:1:64:M1460,N,W2,N,N,T,N,N,S: Alton:ACEswitch::Alton ACEswitch

64512:128:1:44:M1370: Nortel:Contivity Client::Nortel Conectivity Client

----- Caches and whatnots -----

S4:64:1:52:M1460,N,N,S,N,W0: AOL:web cache::AOL web cache

32850:64:1:64:N,W1,N,N,T,N,N,S,M*: NetApp:5.x::NetApp Data OnTap 5.x

16384:64:1:64:M1460,N,N,S,N,W0,N: NetApp:5.3:1:NetApp 5.3.1

65535:64:0:64:M1460,N,N,S,N,W*,N,N,T: NetApp:5.3-5.5::NetApp 5.3-5.5

65535:64:0:60:M1460,N,W0,N,N,T: NetApp:CacheFlow::NetApp CacheFlow

8192:64:1:64:M1460,N,N,S,N,W0,N,N,T: NetApp:5.2:1:NetApp NetCache 5.2.1

20480:64:1:64:M1460,N,N,S,N,W0,N,N,T: NetApp:4.1::NetApp NetCache4.1

65535:64:0:60:M1460,N,W0,N,N,T: CacheFlow:4.1::CacheFlow CacheOS 4.1

8192:64:0:60:M1380,N,N,N,N,N,N,T: CacheFlow:1.1::CacheFlow CacheOS 1.1

S4:64:0:48:M1460,N,N,S: Cisco:Content Engine::Cisco Content Engine

27085:128:0:40:: Dell:PowerApp cache::Dell PowerApp (Linux-based)

65535:255:1:48:N,W1,M1460: Inktomi:crawler::Inktomi crawler

S1:255:1:60:M1460,S,T,N,W0: LookSmart:ZyBorg::LookSmart ZyBorg

16384:255:0:40:: Proxyblocker::Proxyblocker (what's this?)

65535:255:0:48:M*,N,N,S: Redline::Redline T|X 2200

32696:128:0:40:M1460: Spirent:Avalanche::Spirent Web Avalanche HTTP benchmarking engine

----- Embedded systems -----

S9:255:0:44:M536: PalmOS:Tungsten:C:PalmOS Tungsten C

S5:255:0:44:M536: PalmOS:3::PalmOS 3/4

S5:255:0:44:M536: PalmOS:4::PalmOS 3/4

S4:255:0:44:M536: PalmOS:3:5:PalmOS 3.5

2948:255:0:44:M536: PalmOS:3:5:PalmOS 3.5.3 (Handera)

S29:255:0:44:M536: PalmOS:5::PalmOS 5.0

16384:255:0:44:M1398: PalmOS:5.2:Clie:PalmOS 5.2 (Clie)

S14:255:0:44:M1350: PalmOS:5.2:Treo:PalmOS 5.2.1 (Treo)

S23:64:1:64:N,W1,N,N,T,N,N,S,M1460: SymbianOS:7::SymbianOS 7

8192:255:0:44:M1460: SymbianOS:6048::Symbian OS 6048 (Nokia 7650?)

8192:255:0:44:M536: SymbianOS:9210::Symbian OS (Nokia 9210?)

S22:64:1:56:M1460,T,S: SymbianOS:P800::Symbian OS ? (SE P800?)

S36:64:1:56:M1360,T,S: SymbianOS:6600::Symbian OS 60xx (Nokia 6600?)

Perhaps S4?

5840:64:1:60:M1452,S,T,N,W1: Zaurus:3.10::Zaurus 3.10

32768:128:1:64:M1460,N,W0,N,N,T0,N,N,S: PocketPC:2002::PocketPC 2002

S1:255:0:44:M346: Contiki:1.1:rc0:Contiki 1.1-rc0

4096:128:0:44:M1460: Sega:Dreamcast:3.0:Sega Dreamcast Dreamkey 3.0

T5:64:0:44:M536: Sega:Dreamcast:HKT-3020:Sega Dreamcast HKT-3020 (browser disc 51027)

S22:64:1:44:M1460: Sony:PS2::Sony Playstation 2 (SOCOM?)

S12:64:0:44:M1452: AXIS:5600:v5.64:AXIS Printer Server 5600 v5.64

3100:32:1:44:M1460: Windows:CE:2.0:Windows CE 2.0

```
#####  
# Fancy signatures #  
#####
```

```
1024:64:0:40:: *NMAP:syn scan:1:NMAP syn scan (1)  
2048:64:0:40:: *NMAP:syn scan:2:NMAP syn scan (2)  
3072:64:0:40:: *NMAP:syn scan:3:NMAP syn scan (3)  
4096:64:0:40:: *NMAP:syn scan:4:NMAP syn scan (4)
```

```
# Requires quirks support  
# 1024:64:0:40::A:*NMAP:TCP sweep probe (1)  
# 2048:64:0:40::A:*NMAP:TCP sweep probe (2)  
# 3072:64:0:40::A:*NMAP:TCP sweep probe (3)  
# 4096:64:0:40::A:*NMAP:TCP sweep probe (4)
```

```
1024:64:0:60:W10,N,M265,T: *NMAP:OS:1:NMAP OS detection probe (1)  
2048:64:0:60:W10,N,M265,T: *NMAP:OS:2:NMAP OS detection probe (2)  
3072:64:0:60:W10,N,M265,T: *NMAP:OS:3:NMAP OS detection probe (3)  
4096:64:0:60:W10,N,M265,T: *NMAP:OS:4:NMAP OS detection probe (4)
```

```
32767:64:0:40:: *NAST:::NASTsyn scan
```

```
# Requires quirks support  
# 12345:255:0:40::A:-p0f:sendsyn utility
```

```
#####  
# Generic signatures - just in case #  
#####
```

```
#:64:1:60:M*,N,W*,N,N,T: @FreeBSD:4.0-4.9::FreeBSD 4.x/5.x  
#:64:1:60:M*,N,W*,N,N,T: @FreeBSD:5.0-5.1::FreeBSD 4.x/5.x
```

```
*:128:1:52:M*,N,W0,N,N,S: @Windows:XP:RFC1323:Windows XP/2000 (RFC1323 no tstamp)  
*:128:1:52:M*,N,W0,N,N,S: @Windows:2000:RFC1323:Windows XP/2000 (RFC1323 no tstamp)  
*:128:1:52:M*,N,W*,N,N,S: @Windows:XP:RFC1323:Windows XP/2000 (RFC1323 no tstamp)  
*:128:1:52:M*,N,W*,N,N,S: @Windows:2000:RFC1323:Windows XP/2000 (RFC1323 no tstamp)  
*:128:1:64:M*,N,W0,N,N,T0,N,N,S: @Windows:XP:RFC1323:Windows XP/2000 (RFC1323)  
*:128:1:64:M*,N,W0,N,N,T0,N,N,S: @Windows:2000:RFC1323:Windows XP/2000 (RFC1323)  
*:128:1:64:M*,N,W*,N,N,T0,N,N,S: @Windows:XP:RFC1323:Windows XP (RFC1323, w+)  
*:128:1:48:M536,N,N,S: @Windows:98::Windows 98  
*:128:1:48:M*,N,N,S: @Windows:XP::Windows XP/2000  
*:128:1:48:M*,N,N,S: @Windows:2000::Windows XP/2000
```

```
Found in path(s):
```

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-  
xz/usr/share/xtables/pf.os
```

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```

Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man8/xtables-legacy-8-gz/xtables-legacy.8
```

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```

Found in path(s):

```
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-set-verdict-3-gz/ipq_set_verdict.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-set-mode-3-gz/ipq_set_mode.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-message-type-3-gz/ipq_message_type.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-errstr-3-gz/ipq_errstr.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/libipq-3-gz/libipq.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-read-3-gz/ipq_read.3
* /opt/cola/permits/1409587079_1683835556.5462122/0/iptables-1-1-8-3-1-x86-64-pkg-tar-
xz/usr/share/man/man3/ipq-create-handle-3-gz/ipq_create_handle.3
```

1.164 storcli 1.23.02 2

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1.165 curl 7.86.0

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1.166 mtools 4.0.23 1

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```
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```

```
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```
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1.167 elfutils 0.176-1

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1.168 syslog-ng 3.22.1

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1.169 xorg-xsetroot 1.1.2 1

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1.170 libxi 1.1.4 1

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1.171 fuse 2.9.9

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The general conventions used throughout this manual include

+ o file names and paths in [4mitalic [24m, e.g. [4m/usr/share/man [24m.

+ o variable strings (usually path components) enclosed within <> and in [4mitalic [24m, eg. [4m<sec> [24m,

+ o program names in [1mbold [22m, eg. [1mman [22m.

+ o commands that can be typed at a shell prompt in a |_b_o_x_|_, eg. |_m_a_n__f_o_o_b_a_r_|_.

+ o environment variables denoted as follows: \$ [1mENV_VAR [0m

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[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m1. Introduction [0m

[1m1.1. man-db [0m

man-db is a package that is designed to provide users with online information in a fast and friendly manner while at the same time offering flexibility to the system administrator.

It is made up of several user programs:

- [1m+ o man [22m- an interface to the on-line reference manuals
- [1m+ o whatis [22m- search the manual page names
- [1m+ o apropos [22m- search the manual page names and descriptions
- [1m+ o manpath [22m- determine search path for manual pages
- [1m+ o lexgrog [22m- directly read header information in manual pages

several maintenance programs:

- [1m+ o mandb [22m- create or update the manual page index caches
- [1m+ o catman [22m- create or update the pre-formatted manual pages

and a special pre-formatter that knows about compressed manual pages:

- [1m+ o zsoelim [22m- satisfy .so requests in roff input

In addition to these compiled programs, there are two shell scripts, [1mmkcatdirs [0m and [1mcheckman [22min the [4mtools [24m subdirectory. These scripts aid the creation of cat directories and check for duplicated manual pages, respectively.

The following manual pages are provided with this package to explain correct format and usage. [1mman [22m(1), [1mwhatis [22m(1), [1mapropos [22m(1), [1mmanpath [22m(1), [1mlexgrog [22m(1), [1mman- [0m

[1mpath [22m(5), [1mmandb [22m(8), [1mcatman [22m(8) and [1mzsoelim [22m(1).

[1m1.1.1. The concept [0m

man-db originally started out life as program suite man-1.1B, written by John W. Eaton <jwe@che.utexas.edu> and maintained by Rik Faith <faith@cs.unc.edu> to which support proposed by the newly formed FSSTND committee regarding cat directories was added.

Since then, man-db's most innovative feature: the database cache scheme¹ has been significantly developed. The basic idea was to reduce manual page search times to a minimum. The following piece of text is included from the man-db-2.2 distribution:

The theory: If you go to a library to take a book out, what do you do?

a) Go and look where it might be on a micro-fiche/terminal, take a look where it is supposed to be on the shelf, and then go look at the new arrivals if it's not where it's supposed to be?

OR

¹ originally conceived after observing the actions of the Perl-based manual pager suite, man-pl written by Tom Christiansen <tchrist@convex.com>

[1m1 [0m

[1mman-db

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b) Start at one end of the ground floor, look along every bookshelf until you've completed that floor, then go up a level and start again until you've found what you're looking for?

Since then the database [1mindex [22mscheme has evolved greatly. Every manual page and stray cat page on the system is registered in an [1mindex [22mdatabase cache which stores various details about the file including the timestamp, the location and the whatis2 information. This information is kept up to date by regular runs of [1mmandb [22m. In some configurations [1mman [22malso looks for filesystem changes each time it is invoked and helps to keep the database cache current, but this imposes a penalty on manual page search times.

[1m1.2. The manual page system [0m

The simplest manual page system will have a single manual page hierarchy. This will typically be

[4m/usr/share/man [0m

beneath which will be several subdirectories of the form [4mman<sec> [24m where [4m<sec> [0m is [1m1 [22m, [1m2 [22m, [1m3 [22m, [1m4 [22m, [1m5 [22m, [1m6 [22m, [1m7 [22mor [1m8 [22m. These are referred to as [4msections [24m of the manual.

Others may exist and they are not restricted to single character names. eg.

[4m/usr/share/man/manfoo [0m

is a valid section subdirectory. Other common sections include [1m9 [22m, [1mn [22m, [1ml [22m, [1mp [22mand [1mo [22m.

Within these section subdirectories reside the manual pages themselves. Their filenames follow the pattern

[4m/usr/share/man/man<sec>/<name>.<sec><ext> [0m

where in most cases [4m<ext> [24m is an empty string. An example is manual page [1mcp [0m

[4m/usr/share/man/man1/cp.1 [0m

which resides in [4msection [24m [1m1 [22mand has no special [4mextension [24m.

[1m1.3. Sections of the manual [0m

The manual is split up into sections to ease access and to cater for manual pages that share the same name. It is common for a program and function to share the same name. [1mkill [22mis a good example. This is both a program which can be used to send a process a signal and an operating system call with similar functionality. Their manual pages are stored under sections [1m1 [22mand [1m2 [22mrespectively. Thus, sections are used to separate out the program manual pages from the function manual pages and so on. The table below shows the [4msection [0m

2 one line description of the manual page

[1m2 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

numbers of the manual followed by the types of pages they contain.

```

+-----+-----+
|Section|      Section contents      |
+-----+-----+
|  1  | user executable programs or shell commands |
|  2  | system calls (functions provided by the kernel) |
|  3  | library calls (functions within system libraries) |
|  4  | special files (usually found in [4m/dev [24m) |
|  5  | file formats and conventions eg. [4m/etc/passwd [24m |
|  6  | games |
|  7  | macro packages and conventions eg. [1mman [22m(7), [1mgroff [22m(7). |
|  8  | system administration commands |
|  9  | kernel routines [Non-standard] |
|  n  | new [obsolete] |
|  l  | local [obsolete] |
|  p  | public [obsolete] |

```

| o | old [obsolete] |
+-----+

[1m1.4. The format of manual pages [0m

The format in which manual pages are stored is [1mNROFF [22m/ [1mTROFF [22mor more generally ROFF. This is a typesetter style language³ which requires formatting before being viewed. In fact some manual pages require pre-format processing to correctly format tables or equations.

If the page is to be viewed on screen in a text environment, [1mNROFF [22mis used as the primary formatter. If the page is to be printed or displayed in a graphical environment, [1mTROFF [22mis used. Traditionally, [1mTROFF [22mformatted files for a [1mC/A/T [22m(Computer aided Typesetter) which is now obsolete.

The [1mGNU [22mROFF ([1mGROFF [22m4) suite of programs offer a choice of output types including [1mX [22m, [1mdvi [22mand [1mpostsript [22m. When configuring man-db, the preference is to use [1mGROFF [22mrather than [1mTROFF [22m.

[1m1.5. Arguments to configure [0m

To allow the configuration program, [1mconfigure [22m, to be non-interactive, it can be passed various options to alter the default settings. Generic [1mconfigure [0m options are discussed in [4mdocs/INSTALL [24m. Options that are specific to the man-db package are described below.

--enable-cache-owner[=ARG]

By default, system-wide cache files will be owned by user man. Use this

³ similar in some aspects to [1mTeX [0m

⁴ Written by James Clark <jjc@jclark.com> and now maintained by Ted Harding <ted.harding@nessie.mcc.ac.uk> and Werner Lemberg <wl@gnu.org>

[1m3 [0m

option with an argument to change the cache file owner.

`--disable-cache-owner`

Use this option to leave the ownership of system-wide cache files unconstrained. Users will be allowed to modify them.

`--disable-setuid`

By default, `[1mman [22m` will be installed as a setuid program to the user that owns the system-wide cache files. Use this option to install `[1mman [22m` as a non-setuid program instead.

`--enable-mandirs=OS`

By default, `man-db` supports manual page directories in any of several layouts used by free and proprietary versions of `[1mUNIX [22m`. However, in certain cases, this can cause `man-db` to find the wrong page by mistake, especially when the names of some manual pages on the system contain periods. Use this option with an argument of GNU, HPUX, IRIX, Solaris, or BSD (or more than one of these, separated by commas) to support only the layouts typically used on each of those systems. Note that `man-db` is not currently capable of writing cat pages in the proper BSD layout.

`--with-device=DEVICE`

Use this flag to alter the default output device used by `[1mNROFF [22m`. `DEVICE` is passed to `[1mNROFF [22m` with the `-T` option. `[1mconfigure [22m` will test that `[1mNROFF [22m` will run with the supplied device argument.

`--with-db=LIBRARY`

`configure` will look for database interface libraries in the order `gdbm`, Berkeley DB and finally `ndbm` and will `#define` appropriate variables relative to the first one found. To override the built-in order on platforms having a choice of interface library, use this option to specify which library to use.

`--enable-automatic-create`

If this flag is used, `[1mman [22m` will automatically create index databases for users' private manual page hierarchies.

`--disable-automatic-update`

Normally, `[1mman [22m` will update entries in index databases if it finds newly installed manual pages (if the `[1m--update [22m` flag is used) or delete entries if manual pages are removed. This flag suppresses this behaviour.

`--disable-cats`

Normally, `[1mman [22m` will automatically try to create cat files corresponding to manual files when a manual page is read. This flag suppresses this behaviour.

`--disable-manual`

Don't build or install the man-db manual. This may be useful when cross-compiling, or to reduce the installation size.

[1m4 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m2. The specifics of Sections [0m

[1m2.1. Package specific manual page sections [0m

The use of package specific manual page sections is discouraged as packages large enough to warrant their own section probably contain manual pages that span other sections. An example might be package [1mfoo [22mthat has its own section

[4m/usr/share/man/manfoo [0m

which contains manual pages describing its programs, the library routines it offers and the format of several of its configuration files. These pages would normally be allocated to sections [1m1 [22m, [1m3 [22mand [1m5 [22mrespectively and thus combining them all under section [1mfoo [22mis misleading. Subtle problems will arise if there are any base name-space clashes with standard manual pages, e.g. [1mexit [22m(3), [1mexit [22m(foo) and the order in which they should be shown.

There are two standard solutions to this problem.

- (1) Create a separate manual page hierarchy for the package's manual pages such as

[4m/usr/local/packages/foo/man [0m

- (2) Install the pages in their relevant sections, with a unique extension appended to the filename such that

[4m/usr/share/man/manfoo/exit.foo [0m

would instead be installed as

```
[4m/usr/share/man/man1/exit.1foo [0m
```

Only (2) offers a complete solution to manual page ordering problems and allows users to access the desired page directly.

```
[1m2.2. Selecting a section type [0m
```

```
[1m2.2.1. Specifying a section [0m
```

This is done via use of the section argument to man

```
_____
|_m_a_n__1__e_x_i_t_|_
```

will look for [4mexit.1* [24m in section [1m1 [22mof the manual. If [4mexit.1 [24m exists, it will be displayed in preference to [4mexit.1foo [0m

```
_____
|_m_a_n__1__f_o_o__e_x_i_t_|_
```

will look for [4mexit.1foo* [24m in section [1m1 [22mof the manual. The asterisk (*) represents a wild-card of any type or length, including length zero.

```
[1m5 [0m
```

```
[1mman-db
```

```
v2.8.6.1
```

```
August 10, 2019 [0m
```

For an argument to be interpreted as a section name rather than a page name, it must either begin with a digit, or be included in the standard section list. The default section list is defined in [4minclude/manconfig.h [24m to be [1m1 [22m, [1mn [22m, [1ml [22m, [1m8 [22m, [1m3 [22m, [1m2 [22m, [1m5 [22m, [1m4 [22m, [1m9 [22m, [1m6 [22mand [1m7 [22m. This should be modified in order and content to meet the local conventions. It may be altered at run-time using the [1mSECTION [0m directive in the man-db configuration file.

Every subdirectory section name in the entire system must be in the list, including sections found in imported manual page hierarchies. It is not necessary to list sections with extensions unless a special ordering for those extensions is desired. The order is important because in normal operation, [1mman [0m

will only display the first manual page it finds that meets the search criteria. Using the `--all` argument will cause `man` to attempt to display all manual pages that meet the criteria. See `man(1)` for further information.

Having an excess of sections listed will not slow `man` down.

2.2.2. Specifying an extension

If the section is unknown, but the package extension is, it is possible to use the extension argument

```
man -e foo exit
```

to search in all sections for manual pages named `exit` from package `foo`.

[6]

[1mman-db

v2.8.6.1

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[1m3. Filesystem structure [0m

[1m3.1. Manual page hierarchies [0m

It is often common for manual page systems to have more than one manual page hierarchy. Indeed one of the systems I use has the following globally accessible hierarchies

[4m/usr/man [0m

[4m/usr/local/man [0m

[4m/usr/local/tex/man [0m

[4m/usr/local/pbm/man [0m

[4m/usr/X11R6/man [0m

[4m/usr/openwin/man [0m

[4m/usr/local/packages/pvm/man [0m

A full system \$ [1mMANPATH [22mwould be a colon separated list of these directories. The order is important, and is observed by man-db's search algorithms. The order is very much related to the user's \$ [1mPATH [22menvironment variable, and should be set on a per user basis, or not set at all. If a user's \$ [1mPATH [0m causes

[4m/usr/local/packages/bin/foobar [0m

to be executed in preference to

[4m/usr/bin/foobar [24m,

it is essential that

 |_m_a_n__f_o_o_b_a_r_|_

displays the manual page located within

[4m/usr/local/packages/man [0m

rather than within

[4m/usr/share/man [0m

To ensure correct order, the program [1mmanpath [22mmay be used to set the \$ [1mMANPATH [0m

environment variable. See `[1mmanpath [22m(1)` and `[1mmanpath [22m(5)` for details.

[1m3.2. Setting the MANPATH [0m

If using a Bourne style login shell such as `[1mbash [22m`, `[1mksh [22m`, or `[1mzsh [22m`, the commands

```
export MANPATH
MANPATH=`manpath -q`
```

can be added to `[1m$HOME [4m [22m/.profile [0m`

[1m7 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

If using a C style login shell such as `[1mcsh [22mor [1mtcsh [22m`, the commands

```
setenv MANPATH `manpath -q`
```

can be added to `[1m$HOME [4m [22m/.login [0m`

N.B. `[1mPATH [22m` must be set prior to using `[1mmanpath [22m`. The setting of `[1mMANPATH [22m` is actually unnecessary as the man-db utilities will dynamically determine the manpath if `[1mMANPATH [22m` is unset.

[1m3.3. Determination of the internal manpath [0m

All man-db utilities, `[1mmanpath [22m` included, will use the user's `[1mMANPATH [22m` environment variable if set and not equal to "". Otherwise the user's `[1mPATH [22m` environment variable is queried. If this is unset or is set to "", the determined manpath will simply be any

```
[1mMANDATORY_MANPATH [0m
```

elements defined in the man-db config file.

Assuming that a `[1mPATH [22m` exists, each path element it contains is scanned for in the config file. If found, the corresponding manpath element is appended to

the internal manpath. However, if the element is not mentioned in the config file, a man directory relative to it will be sought. The subdirectories [4m../man [24m, [4mman [24m, [4m../share/man [24m, or [4mshare/man [24m relative to the path component are appended to the internal manpath if they exist. Finally, the internal manpath is stripped of duplicate paths before being processed by the [1mNLS [22mand `Other OS' routines. These may add to or modify the separate path elements giving priority to [1mNLS [22mmanual pages or add OS-relative manpaths.

[1m3.4. Other OS's manual pages [0m

It is common to have collections of heterogeneous computer systems linked together in a network. In some circumstances⁵ it is advantageous to be able to access the manual pages of these other systems directly from your system. This feature is known as alternate system support. The accepted way to setup this support is to NFS mount the respective systems' manual page hierarchies under the native manual page hierarchies. An example:

⁵ writing portable software instantly comes to mind

[1m8 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

```
+-----+-----+
|System | Manual page hierarchy |
+-----+-----+
|<local> | /usr/share/man        |
|newOS   | /usr/share/man/newOS |
```

```

|userix | /usr/share/man/userix |
|<local> | /usr/local/man      |
|newOS  | /usr/local/man/newOS |
|userix | /usr/local/man/userix |
+-----+-----+

```

Rather than have multiple NFS mounts from a single machine, this may be accomplished by NFS mounting

```
[4m<other-sys>:/usr [0m
```

somewhere on the local system and using symbolic links within the manual hierarchies. To access these [4malternate [24m [4msystems [24m using [1mman [22muse the [1m-m [22mor [1m--systems [0m option, eg.

```

|_m_a_n_-_a_l_l_-_s_y_s_t_e_m_s__u_s_e_r_i_x_:n_e_w_O_S_5_p_a_s_s_w_d_|_

```

would provide manual pages showing the structure of [4m/etc/passwd [24m on systems [1muserix [22mand [1mnewOS [22min that order. A manual page would [4mnot [24m be displayed about the local systems conventions. Please read the relevant man-db utility's manual page for further and more specific information.

[1m3.5. NLS manual pages [0m

NLS manual pages should be installed in NLS subdirectories of a standard manual page hierarchy. The subdirectory names should be made up of language, territory, and character set components as necessary to specify the locale of the manual page.

The character set component describes the encoding of the manual page itself, and not the encoding in use by the user; a manual page installed under the [1mfr.UTF-8 [22msubdirectory will be used in the [1mfr_FR.ISO-8859-1 [22mlocale as well as [1mfr_FR.UTF-8 [22m, and converted between encodings as necessary. If no character set is specified in the subdirectory name, man-db will attempt to detect whether each page is encoded using UTF-8 or a legacy character set appropriate for the language. Accordingly, the recommended scheme for installing manual pages is to encode them in UTF-8 (or, if that is not practical, in the legacy character set) and install them in directories [4mwithout [24m a character set component in their names.

The territory should normally be omitted unless it is necessary to describe the manual page text. For example, Brazilian Portuguese is quite distinct from Portuguese and so should be installed under the [1mpt_BR [22msubdirectory, but a single German manual page will typically suffice in Austria as well as in Germany and so should be installed under the [1mde [22msubdirectory.

[1m9 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

The following table gives some examples.

| Language | Territory | Character Set | Directory |
|----------|-------------|---------------------|---------------------------------|
| French | any | UTF-8 or ISO-8859-1 | /usr/share/man/fr |
| French | Canada | ISO 8859-1 | /usr/share/man/fr_CA |
| French | any | UTF-8 | /usr/share/man/fr.UTF-8 |
| German | Germany | UTF-8 | /usr/share/man/de_DE.UTF-8 |
| German | Switzerland | ISO 8859-1 | /usr/share/man/de_CH.ISO-8859-1 |
| Japanese | Japan | UTF-8 or EUC-JP | /usr/share/man/ja_JP |
| Japanese | Japan | EUC-JP | /usr/share/man/ja_JP.EUC-JP |
| Japanese | any | UTF-8 | /usr/share/man/ja.UTF-8 |

On systems supporting UTF-8, it is recommended that all manual pages be encoded using UTF-8 where possible, in order to simplify the task of editing a variety of pages without reconfiguring editors and terminals and the like.

Each of these directories are then interpreted as manual page hierarchies themselves and may contain the usual section subdirectories. Access to NLS manual pages is achieved via use of the `man(3)` function which queries user environment variables to determine the current locale. Internally to the `man-db` utilities, this locale string is appended to each `manpath` element and the resultant NLS `manpath` element is searched before the standard `manpath` element. In this way, an NLS manual page that matches the search criteria will be shown before or in place of the standard American English page.

If a user's `$MANPATH` consists of or is determined as

`/usr/local/man:/usr/share/man:/usr/X11R6/man`

and their locale is set to [1mde_DE [22m, the command

```
_____
|_m_a_n__-_-s_y_s_t_e_m_s__u_s_e_r_i_x_:_m_a_n__f_o_o_b_a_r_|_
```

would produce the following internal man-db manpath elements

```
[4m/usr/local/man/userix/de_DE [0m
[4m/usr/local/man/userix/de [0m
[4m/usr/local/man/userix [0m
[4m/usr/share/man/userix/de_DE [0m
[4m/usr/share/man/userix/de [0m
[4m/usr/share/man/userix [0m
[4m/usr/X11R6/man/userix/de_DE [0m
[4m/usr/X11R6/man/userix/de [0m
[4m/usr/X11R6/man/userix [0m
[4m/usr/local/man/de_DE [0m
[4m/usr/local/man/de [0m
```

```
[1m10 [0m
```

```
[1mman-db          v2.8.6.1          August 10, 2019 [0m
```

```
[4m/usr/local/man [0m
[4m/usr/share/man/de_DE [0m
[4m/usr/share/man/de [0m
[4m/usr/share/man [0m
[4m/usr/X11R6/man/de_DE [0m
[4m/usr/X11R6/man/de [0m
[4m/usr/X11R6/man [0m
```

[1mfoobar [22mwould be searched for in the order of manual page hierarchies listed. Additional directories corresponding to manual pages encoded in different character sets would be used if present.

```
[1m3.5.1. ISO 8859-1 (latin1) manual pages [0m
```

By default [1mNROFF [22mwill format manual pages into a form suitable for a typewriter style device, e.g. a terminal screen. [1mGNU NROFF [22mis capable of format-

ting ROFF into a form suitable for 8-bit latin1 capable output devices. To enable output for such a device, give the option

--with-device=DEVICE

to [1mconfigure [22mwhere DEVICE is the suitable and supported output format, in this case [1mlatin1 [22m.

[1m3.5.2. Displaying non-ASCII characters on a Linux virtual terminal [0m

To view non-ASCII characters at the Linux console, you must have one of the kbd7 and console-tools packages installed. If your system does not come with suitable configuration already, then please see the documentation in the kbd or console-tools package for details on how to configure the console for your locale. On modern systems, the best choice is likely to be to use the UTF-8 encoding with a font suitable for your language. Make sure that your locale environment variables match the encoding displayed by the console. For display under the "X Window System", a suitable 8-bit-clean terminal emulator is required.

[1m3.5.3. Viewing ASCII pages formatted for latin1 output device [0m

When formatting an ASCII manual page for a latin1 output device, [1mGNU NROFF [0m will take advantage of the extra characters available and will always produce a text page containing some latin1 (8-bit) symbols. The table8 below, taken from [1mman [22m(1), illustrates the differences.

6 see [1mnroff [22m(5) for the output device formats available with your [1mNROFF [0m
7 written and maintained by Andries Brouwer <aeb@cwi.nl>.

8 The ISO 8859-1 and ASCII columns of this table will be identical if this manual was formatted for an ASCII based typewriter display, i.e. using [1mNROFF [0m in its native mode.

[1m11 [0m

| Description | Octal | ISO 8859-1 | ASCII |
|---------------------|-------|------------|-------|
| continuation hyphen | 255 | | - |
| bullet (middle dot) | 267 | • | o |
| acute accent | 264 | ' | ' |
| multiplication sign | 327 | x | x |

To display such symbols on a 7 bit terminal or terminal emulator, they must be translated back into standard ASCII. The `[1m-7 [22m` option with `[1mman [22m` will enable this simple reverse translation.

This option may be useful if your site has both 7 and 8-bit capable output devices and `nroff` is using the `latin1` output device to format manual pages.

[1m3.6. Cat pages [0m

It has become standard practice to store the formatted manual pages on disk so that subsequent requests for the manual page do not have to involve the formatting process. These pre-formatted manual pages are known as `[4mcat [24m` pages. Although `cat` pages require additional disk storage requirements, they provide a substantial speed increase and their use is recommended.

The automatic support for storing and using `cat` pages is brought about by simply creating suitable directories for them.

[1m3.7. Cat page hierarchies [0m

Traditionally, `cat` pages were stored under the same manual hierarchy as their source manual pages, in `[4mcat<sec> [24m` subdirectories rather than `[4mman<sec> [24m`. This situation is rather limiting in several situations:

- + o When it is advantageous to mount `[4m/usr [24m` as a read-only filesystem. `cat` pages cannot be supported in this situation without use of symbolic links to various other areas of the filesystem. This situation is a greater problem if the media itself is read-only, such as CD-ROM.
- + o When NFS mounting alternate OS's manual page hierarchies. The alternate system may be under someone else's control and they may not want `cat` pages stored on their system. In fact, it is usually a good idea to export the manual page filesystems read-only, or import them that way. It is possible to avoid the problems, this time with even more symbolic links that may need periodic updating.
- + o If there is a mixture of normal `cat` files and stray `cats`, it is very dif-

difficult to periodically trim the cat space disk usage by removing seldom accessed cat files.

9 cat files that have no source manual page, i.e. they cannot be recreated.

[1m12 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

To avoid all of these problems simultaneously, it was decided to support local cat page directory caches.

[1m3.8. Local cat page directory caches [0m

Any location for cat page hierarchy may be specified in the man-db configuration file. The location of the database cache associated with each manual page hierarchy will always be at the root of the cat page hierarchy. By default, the cat page hierarchy shadows the manual page hierarchy. The [1mFHS [22mproposes [4m/var/cache/man [24m as the location for such directories, although man-db allows any directory hierarchy to be used. The [1mFHS [22mpath transformation rule is as follows:

[4m/usr/<hierarchy>/share/man/<locale>/man<sec>/page.<sec><ext> [0m

should be formatted into the cat file

[4m/var/cache/man/<hierarchy>/<locale>/cat<sec>/page.<sec><ext> [0m

where the [4m<locale> [24m directory component may be missing and [4m<ext> [24m may be an empty string.

The suggestion is that stray cats are located in the traditional hierarchy under [4m/usr [24m whereas re-creatable cat pages are stored under the local writable hierarchy [4m/var/cache/man. [24m [1mman [22mfollows strict rules in determining which file is displayed.

As an example, the following route is taken if all three files exist.

- (1) Check relative modification time stamps of the manual file and the traditional cat file. If the cat file is up to date (has an equal time stamp), display it.
- (2) The traditional cat file is out of date. Check relative time stamps of the manual file and the alternate cat file. If the cat file is up to date, display it.
- (3) The alternate cat file is out of date. Format the manual file and display the result in the foreground, while updating the alternate cat file in the background.

When a cat file is created, its time stamp is set to that of the corresponding manual file. Manual files are often stored in [1mtar [22marchives, and time stamps may be preserved when these archives are unpacked. Simply checking whether the cat file is newer would sometimes cause [1mman [22mto display an out-of-date cat file in this case, when it should have reformatted the manual file instead.

[1m13 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m4. Compression [0m

[1m4.1. Compressed manual pages [0m

It is possible to maintain a system of compressed manual pages. This imposes a small overhead on the formatting process, but is nevertheless usually reasonable in order to avoid unnecessary consumption of disk space.

Presently, the compression extension/decompressor pairs must be known at compile time although any number may be defined and used. The following struc-

ture is predefined in man-db:

```
+-----+-----+
|Extension | Decompressor |
+-----+-----+
|gz      | gzip -dc  |
|z       | gzip -dc  |
|Z       | compress -dc |
+-----+-----+
```

It is a relatively easy operation to include further pairs in this structure. See `[4minclude/comp_src.h [24m` for details and an example.

Support for compressed manual pages is compiled into the man-db utilities by default. To completely disable this support, edit `[4mconfig.h [24m` and comment out the following line

```
#define COMP_SRC 1
```

This will enable a minor speed increase, but note that support for stray cats with any compression extension other than the default will also be disabled.

[1m4.2. Compressed cat pages [0m

man-db compresses cat files by default. During configuration, `[1mconfigure [22m` will try to find `[1mgzip [22m` and, if found, all cat files produced by `[1mman [22m` will be compressed with

```
[1mgzip -7c [0m
```

and have a `[1m.gz [22m` extension appended. If `[1mgzip [22m` is not found,

```
[1mcompress -c [0m
```

is used as the compressor and the extension `[1m.Z [22m` is appended.

To store cat files in an uncompressed state and to disable compressed extension processing completely, edit `[4mconfig.h [24m` and comment out the following line

```
#define COMP_CAT 1
```

```
[1m14 [0m
```

[1m4.2.1. Stray cats [0m

Normally, [1mman [22mwill only look for cat files with the default compression extension. The default compression extension is dependent on the default compressor and may be an empty string if the support for compressed cats is disabled.

It is possible for a system to be supplied with stray cat files located in the traditional cat page hierarchy. To make matters worse, they may have compression extensions other than the default and reside on read-only media. In such circumstances, stray cat files will be accepted with any compression extension that is also supported for manual pages.

This special treatment of stray cat pages is removed if support for compressed manual pages is turned off or not available.

[1m15 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m5. Formatting [0m

As already pointed out in the introduction, there are two primary formatters common to [1mUNIX [22m: [1mNROFF [22mand [1mTROFF [22m.

In the following sections, I will use the term [1mTROFF [22mto describe the typesetter formatter and [1mNROFF [22mto describe the typewriter formatter. The term ROFF will be used to describe a generic formatter.

[1m5.1. GROFF [0m

If using the [1mGROFF [22mpackage, there is a further choice, [1mGROFF [22mitself. Essentially, [1mGROFF [22mforms a pipeline of processors including [1mTROFF [22mand an output processor which translates the ditroff produced by [1mTROFF [22minto the appropriate output format. The default output format, or device, for [1mGROFF [22mis PostScript. Anything else must be specified using the device argument. To illustrate [1mGROFF [22m, the command

```
|_g_r_o_f_f_- _T_d_v_i_/ _d_e_v/_n_u_l_l_|_
```

will form the following pipeline

`troff -Tdvi /dev/null | grodvi`

If `[1mGROFF [22mis tied to [1mman [22m's [1m-T [22moption, it is still possible for [1mman [22mto produce ditroff via use of the [1m-Z [22moption.`

In `[1mGROFF [22m1.09, [1mNROFF [22mis bundled as a shell script that calls [1mGROFF [22m, which in turn calls [1mTROFF [22mwith the default options [1m-Wall -mtty-char -Tascii [22m, passing the result through [1mgrotty [22mbefore it finally reaches the screen.`

It is imperative that the script does not pass pre-processing options to `[1mGROFF [22m's command line as [1mman [22mtakes care of this separately.`

`[1m5.2. Devices [0m`

Both `[1mNROFF [22mand [1mGROFF [22mmay allow output device selection. As mentioned previously, classic [1mNROFF [22mproduces output suitable for a typewriter device, classic [1mTROFF [22mproduces output suitable for a [1mC/A/T [22mand [1mGROFF [22mproduces output suitable for a PostScript interpreting device by default.`

`[1m5.3. Macros [0m`

There are several ROFF macro sets in existence that are suitable for manual pages. Unfortunately, they tend to be incompatible with each other.

During configuration, `[1mconfigure [22mwill attempt to determine a suitable macro set for the local system's manual page collection. It attempts to use [1mNROFF [22mwith the following three macro packages:`

`[1m16 [0m`

`[1mman-db` `v2.8.6.1` `August 10, 2019 [0m`

```
+-----+-----+-----+
|macro package | macro filename      | nroff command |
+-----+-----+-----+
|andoc        | tmac.andoc or andoc.tmac | nroff -mandoc |
```

```
|an      | tmac.an or an.tmac    | nroff -man  |
|doc     | tmac.doc or doc.tmac   | nroff -mdoc |
+-----+-----+-----+
```

The first that succeeds is used. The [1mandoc [22mmacro set is suitable for manual pages written using either [1man [22mor [1mdoc [22mmacro commands, but not a combination of both.

[1m5.4. Pre-format processors (pre-processors) [0m

Manual pages may require pre-processing by any of the following

```
+-----+-----+-----+
|Program | ID | Pre-processes |
+-----+-----+-----+
|eqn    | e | equations     |
|tbl    | t | tables        |
|grap   | g | graphs        |
|pic    | p | pictures      |
|refer  | r | A bibliography |
|vgrind | v | program listings |
+-----+-----+-----+
```

It is possible to assign a default pre-processor list that all manual pages will be passed through prior to the primary formatter. By default, this is empty. To define a default list, edit [4minclude/manconfig.h [24m and un-comment the following line

```
/* #define DEFAULT_MANROFFSEQ "t" */
```

which will enable [1mtbl [22mprocessing by default. To change the list, replace the [1mt [22mwith a suitable string of processor ID's.

Pre-process options may be provided at run time in various forms, but in general the pre-processors required by each manual page is indicated in the first line of the manual page itself. See [1mman [22m(1) for details.

If a manual page does not contain a pre-processor string in its first line, it will be scanned for well-known ROFF requests used to pass input to certain pre-processors. Thus, the pre-processor string is often unnecessary for correct output, but should nevertheless be included for efficiency.

[1m5.5. Format scripts [0m

It is very likely that alternate systems manual pages may require non-standard macro packages or possibly even special pre-processors. To tackle such problems, special format scripts may be created on a per manual hierarchy basis.

[1m17 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

If the file

[4m<manual_hierarchy>/mandb_nfmt [0m

exists and is executable, it is expected to be able to correctly format a manual page originating from [4m<manual_hierarchy> [24m to its standard output. It will be supplied with either two or three arguments:

- + o manual page filename
- + o pre-processor string
- + o output device (optional)

Similarly, if the option [1m-T [4m [22m<device> [24m or [1m-t [22mwas supplied to [1mman [22mand the file

[4m<manual_hierarchy>/mandb_tfnt [0m

exists and is executable, it will be used in the same way.

An example of such a script, supplied by Markus Armbruster <armbru@pond.sub.org>, who provided support for external formatter scripts, can be found as [4mtools/mandb_fmt-script [0m

The script can be used as both an [1mNROFF [22mand [1mTROFF [22m/ [1mGROFF [22mformat script and can be installed as [4mmandb_nfmt [24m and hard linked to [4mmandb_tfnt [24m after modification appropriate for your particular site.

[1m18 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m6. The index database caches [0m

As mentioned in the introduction, man-db uses database lookups to search for manual page locations and information. When performing a manual page lookup or a basic [1mwhatis [22msearch, the databases are searched in

[4mkey [24m [4m-> [24m [4mcontent [0m

mode and are as fast as the underlying databases can be. When performing [1mapropos [22mor special [1mwhatis [22msearches, the databases are searched in a linear way, which, although far more expensive than [4mkeyed [24m lookup, is no worse than traditional text based file searching.

[1m6.1. index database location [0m

The databases are always located at the root of the cat page hierarchy,

whether this is the same as the manual page hierarchy or not. As file locking mechanisms are employed to ensure that concurrent processes do not update a database simultaneously, it is almost imperative that the databases reside on a local filesystem since file locking across NFS filesystems may be unavailable or flaky. To avoid such problems, [1mman [22mcan be compiled without database maintenance support. See the section titled "Modes of operation" for details.

[1m6.1.1. Manual hierarchies with no index database [0m

It is possible for the man-db utilities to operate without aid from an index database. Under such circumstances, search methods will use only file globbing and whatis type searches are performed on any traditional whatis text databases that may exist. Only the traditional cat hierarchy is searched for cat files.

[1m6.1.2. User manual page hierarchies [0m

A user may have any number of personal manual page hierarchies listed in their \$ [1mMANPATH [22m. By default, [1mman [22mwill maintain [1mmandb [22mcreated databases at the root of user manual page hierarchies. The definition of a user manual hierarchy is that it does not have an entry in the man-db configuration file. See [1mman- [0m [1mpath [22m(5) for details.

[1m6.2. Contents of an index database [0m

There are four kinds of entry in an index database.

- (1) A direct entry regarding a particular manual page. Manual pages that are unique in terms of name use just a single entry in the database and can be looked up by simply using the name as the key.
- (2) A common name index entry that lists the extensions of all of the manual pages sharing the common index entry name. Manual pages that share common names but have differing extensions each have a single database entry, but this time they are looked up with a key comprised of their name and their extension. The entire set of common named pages also has an common name index entry that informs of the extensions

[1m19 [0m

available.

- (3) An indirect entry that has a pointer to the real entry. Manual pages that are whatis references to a particular page do not physically exist so they have a pointer to the entry containing the location of the real manual page.
- (4) Special identification entries. There is one special key name, "\$version\$" that identifies the database storage scheme version.

In order to support looking up manual pages in a case-insensitive fashion, keys are stored in lower case. If the name of the page was not already in lower case, its true case is also stored in the common name index entry.

In the following entries, the character "|" will be used to separate the fields. In reality a tab is used. Direct and indirect entries takes the form:

```
[4m<name> [24m [4m-> [24m [4m<realname>|<ext>|<sec>|<mtime.sec>|<mtime.nsec>|<ID>|<ref>| [0m  
[4m<filter>|<comp>|<whatis> [0m
```

Common name index entries take the form:

```
[4m<name> [24m [4m-> [24m [4m<realname1>|<ext1>|<realname2>|<ext2>|<realname3>|<ext3>| [24m [4m...  
[0m  
[4m<realnamen>|<extn> [0m
```

and common name direct or indirect entries take the form:

```
[4m<name>|<ext> [24m [4m-> [24m [4m<realname>|<ext>|<sec>|<mtime.sec>|<mtime.nsec>|<ID>| [0m  
[4m<ref>|<filter>|<comp>|<whatis> [0m
```

where in each case the filename being represented is formed as

```
[4m<manual_hierarchy>/man<sec>/<name>.<ext>.<comp> [0m
```

in the case of a manual page, or

```
[4m<cat_hierarchy>/cat<sec>/<name>.<ext>.<comp> [0m
```

in the case of a stray cat.

If any of the fields would be empty, a single "-" is stored in its place.

[4m<comp> [24m represents the compression extension, [4m<mtime.sec> [24m is an integer representing the seconds part of the last modification time of the manual page,

[4m<mtime.nsec> [24m is an integer representing the nanoseconds part of the last modification time of the manual page, [4m<ref> [24m points to the entry containing the lo-

cation of the real page, [4m<ID> [24m is one of the following identification letters, and [4m<filter> [24m represents any preprocessors that are needed to display the page.

[1m20 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

```
+---+-----+-----+
|ID| #define | Description |
+---+-----+-----+
|A| ULT_MAN | ultimate manual page, the full source nroff file |
|B| SO_MAN | manual page containing a .so request to an ULT_MAN |
|C| WHATIS_MAN | virtual whatis referenced page pointing to an ULT_MAN |
|D| STRAY_CAT | cat page with no source manual page |
|E| WHATIS_CAT | virtual whatis referenced page pointing to a STRAY_CAT |
+---+-----+-----+
```

The [4mID [24m illustrates the precedence. Some types of manual page can be referenced by several means, e.g. .so requested and whatis referred. In such a case, only one reference must be stored in the database, the precedence level decides which.

[1m6.2.1. Favouring stray cats [0m

With the above rules of precedence, it is possible for a valid stray cat page to be replaced by a whatis referred page sharing identical name-space.

If you would like to see the stray cat page [1mkill [22m(1) instead of the [1mbash_builtins [22m(1) page referenced by [1mkill [22m(1), edit [4minclude/manconfig.h [24m and uncomment the following line

```
/* #define FAVOUR_STRAYCATS */
```

[1m6.2.2. Accessdb [0m

A simple program, `accessdb` included with `man-db`. It will output the data contained within a `man-db` database in a human readable form. By default, it will `dump` the data from `/var/cache/man/index.<db-type>`, where `<db-type>` is dependent on the database library in use.

Supplying an argument to `accessdb` will override this default. Tabs are replaced in the output by a tilde "~" in the `key` field and a single space in the `content` field.

6.2.3. Example database

As an example of both `accessdb` and the database storage method, the output of

```
_____
|_s_r_c/_a_c_c_e_s_s_d_b_m_a_n/_i_n_d_e_x._b_t_|_
```

after first running

```
_____
|_s_r_c/_m_a_n_d_b_m_a_n_|_
```

from the top level build directory is included below.

```
$version$ -> "2.5.0"
```

```
accessdb -> "- 8 8 1410381979 324541691 A - - - dumps the content of a man-db database in a human readable format"
```

```
apropos -> "- 1 1 1410381979 268541692 A - - - search the manual page names and descriptions"
```

[1m21 [0m

[1mman-db

v2.8.6.1

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```
catman -> "- 8 8 1410381979 328541691 A - - - create or update the pre-formatted manual pages"
```

```
lexgrog -> "- 1 1 1410381979 268541692 A - - - parse header information in man pages"
```

```
man -> "- 1 1 1410381979 280541692 A - t - an interface to the on-line reference manuals"
```

```
manconv -> "- 1 1 1410381979 272541692 A - - - convert manual page from one encoding to another"
```

```
mandb -> "- 8 8 1410381979 324541691 A - t - create or update the manual page index caches"
```

```
manpath -> " manpath 5 manpath 1"
```

```
manpath~1 -> "- 1 1 1410381979 300541691 A - - - determine search path for manual pages"
```

```
manpath~5 -> "- 5 5 1410381979 304541691 A - - - format of the /etc/manpath.config file"
```


whatis -> "- 1 1 1410381979 300541691 A - - - display one-line manual page descriptions"
 zsoelim -> "- 1 1 1410381979 304541691 A - - - satisfy .so requests in roff input"

[1m6.3. Database types [0m

man-db has support for various low level database libraries commonly in use today. The interfaces to the libraries are known as

- + o ndbm ([1mUNIX [22m)
- + o gdbm ([1mGNU [22m)
- + o btree (Berkeley DB)

man-db currently does not hold more than one database open at any time, so

- + o dbm ([1mUNIX [22m)

support could be added in the future.

[1m6.4. Limitations [0m

The general differences and limitations are best compared in a table.

| Name | Type | File name | Content type | memory limit | Concurrent access | Shareable |
|-------|-------------|-----------|--------------|--------------|-------------------|-----------|
| ndbm | hash | index10 | static | 1Kb | none | no |
| gdbm | hash | index.db | dynamic | - | file locking | no |
| btree | binary tree | index.bt | static | - | none | yes |

Those types that have no built in concurrent access strategy are provided with [1mflock [22m(2) based file locking by man-db.

Berkeley DB initializes its databases very quickly, so [1mbtree [22mmay have some performance advantages when doing [1mman [22msearches. However, it is quite heavy-weight and its library SONAME and on-disk formats have changed a number of times to provide features considerably beyond what man-db needs, so the

10 ndbm databases are physically represented by two files, [4mindex.dir [24m and [4mindex.pag [24m, but are referred to simply as [4mindex [24m by the interface routines.

[1m22 [0m

preferred library interface is now [1mgdbm [22m. [1mconfigure [22mwill look for [1mgdbm [22m, [1mbtree [0m and then finally [1mndbm [22mroutines when configuring man-db.

[1m6.5. Sharing databases in a heterogeneous environment [0m

It may be necessary or advantageous to share databases across platforms, regardless of the potential file locking problems.

An example would be a user having a personal manual page hierarchy in an NFS based home directory environment, whereby the home directory is held on and mounted from a single machine in a heterogeneous network.

In this context, the database cache will have the same name and reside in the same place on all machines. There are at least two ways to deal with this problem.

- + o Hack the [4minclude/manconfig.h [24m file on each platform to provide a unique database name for each system. No databases will be shared.
- + o Install and use the Berkeley DB database interface library on each platform. These databases can be shared across big-endian/little-endian platforms although a database created on a big-endian platform will suffer a small access penalty when used by a little-endian machine and vice-versa.

[1m23 [0m

[1mman-db v2.8.6.1 August 10, 2019 [0m

[1m7. Miscellaneous [0m

[1m7.1. Modes of operation [0m

The man-db utilities can operate in many different modes, allowing varying degrees of freedom, functionality and security. No mode requires that the manual page hierarchies be writable.

(1) Default mode

[1mman [22mis setuid to the user MAN_OWNER which is `man' by default and is changeable via options to [1mconfigure [22m. [1mmandb [22m, if run by the superuser or MAN_OWNER, creates globally accessible index databases owned by MAN_OWNER. Once the databases are created, [1mman [22mwill update entries in them if it finds newly installed manual pages (if the [1m--update [22mflag is used) or delete entries if manual pages are removed. In this mode it is possible for a malicious [1mman [22muser to deliberately lock a database as a writer, thus denying read access to other users.

If cat directories exist and have the correct permissions, [1mman [22mwill take care of producing cat files. These will be owned by MAN_OWNER. The default permissions of both cat files and databases are 0644.

(2) No man database updates

This mode also requires `[1mman [22mt` to be setuid, but is favoured where databases must be shared in an environment unfriendly to kernel locking procedures, eg. NFS. It also prevents possible "denial of service" attacks by malicious `[1mman [22m` users as `[1mman [22m` never opens the databases as a writer in this mode. To replace the functionality lost by disallowing `[1mman [22m` write access to the databases, `[1mmandb [22m` should be rerun whenever new manual pages are installed. Otherwise, `[1mman [22m` will not be able to use the database to find and display the newly added manual pages, and will have to use the filesystem instead. Each index database may be owned by an arbitrary user who will have subsequent write access to the database. Cat files are created in the same way as for mode (1) above.

To use the man-db utilities in this mode, give the option `--disable-automatic-update` to `[1mconfigure [22m`.

(3) No man database updates or cat production

`[1mman [22m` is installed not setuid. This mode of operation probably offers the highest level of security but it requires higher levels of maintenance than other modes due to the restrictions imposed upon `[1mman [22m`. Each database is owned by an arbitrary user as in mode (2). Each cat hierarchy is also owned by an arbitrary user who is responsible for creating cat files using `[1mcatman [22m` whenever new manual files are installed. `[1mman [22m` will be completely passive in its action, i.e. no index databases will be written to and no cat files are ever produced.

To use the man-db utilities in this mode, supply the options `--disable-cache-owner --disable-setuid --disable-automatic-update --disable-cats` to `[1mconfigure [22m`, or build man-db as in mode (1) and install the binaries without the setuid bit set.

(4) Wide open

`[1mman [22m` is installed not setuid. This mode is similar in operation to the majority of vendor supplied, non setuid, cat file supporting manual pager

[1m24 [0m

[1mman-db

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suites. It is not recommended. The databases are owned by an arbitrary user who maintains them using `[1mmandb [22m`. `[1mman [22m` does not update the databases.

Cat files are produced and stored in world writable cat directories and have world write access themselves.

To use the man-db utilities in this mode, supply the options '--disable-cache-owner --disable-setuid --disable-automatic-update' to [1mconfig- [0m [1mure [22m, edit [4minclude/manconfig.h [24m and change the definition of CATMODE from 0644 to 0666.

Other variations can also be used. In fact it is possible for [1mman [22mto actually create index databases, usually the job of [1mmandb [22m, for users' private manual page hierarchies. This is enabled by giving the option '--enable-automatic-create' to [1mconfigure [22m.

In summary, [4minclude/manconfig.h [24m contains definitions for

- + o CATMODE
- + o DBMODE

the setuid installation and operation of [1mman [22mis modified by supplying either of the following options to [1mconfigure [22m:

- + o --enable-setuid
- + o --disable-setuid

and other aspects of [1mman [22m's behaviour are controlled by the following options to [1mconfigure [22m:

- + o --enable-automatic-create
- + o --disable-automatic-update
- + o --disable-cats

[1m7.2. NFS root squash [0m

If [1mman [22mis installed setuid to an arbitrary user and is run by root, instead of gaining the effective user id of the setuid user, [1mman [22mis run with both uid and euid as root. This is necessary due to infelicities with the [1mPOSIX [22msetuid() function call: All users except root may change to and from the effective (setuid) user, however once root has setuid(user), there is no way back.

A side effect of this is that [1mNFS [22mmounted cat hierarchies or databases will be unwritable if the following conditions exist:

- + o man/catman/mandb is run by root
- + o The NFS mount has the root squash flag set

To get around this problem, the root user must first attain the ID of the cat hierarchy or database owner before running [1mman/catman/mandb [22mwhenever the databases need updating or cat files are to be produced.

[1m25 [0m

[1mman-db

v2.8.6.1

August 10, 2019 [0m

[1m7.3. NLS message catalogues [0m

man-db has built in support for native language message catalogues. That is, it can issue messages in the locale of the user's choice. This will only occur if the locale's translation has been written. Before undertaking a translation, please contact the Translation Project (<https://translationproject.org/>) who are coordinating such activities.

[1m7.4. Credits [0m

The authors would like to thank the following people for their time, effort, support, ideas and code which went into man-db:

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and all those translators listed in the [1mman/THANKS [22mfile.

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Glossary

manual page

A file containing descriptions related to the use of a function or program or the structure of a file. The name of the file is formed from the title of the manual page followed by a period followed by the name of the section that it resides in, optionally followed by an extension. The format of the file is [1mNROFF [22mand may be compressed, having a suitable compression extension appended.

cat page

A formatted manual page suitable for viewing on a vt100-type terminal.

stray cat page

A cat page that does not have a relative manual page on the system, i.e. only the cat page was supplied or the manual page was removed after the cat page had been created.

section

Each manual page or cat page hierarchy is divided into sections, each section having its own directory. Manual page hierarchy section names begin with `man` and cat page sections with `cat`.

extension

A package may provide manual pages with filenames ending in a package-specific extension name. This allows manual pages with the same title to coexist in the same manual page hierarchy and section without sharing the same filename. It also provides a further mechanism for man to select the correct manual page.

manual page hierarchy

A directory tree divided into manual page sections, each containing a collection of manual pages.

cat page hierarchy

A directory tree divided into cat page sections, each containing a collection of cat pages.

traditional cat page hierarchy

The same location as the manual page hierarchy.

alternate cat page hierarchy

A separate location to that of the traditional cat page hierarchy.

traditional cat page

A cat page located in a traditional cat page hierarchy.

alternate cat page

A cat page located in an alternate cat page hierarchy.

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Found in path(s):

* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/doc/man-db/man-db-manual.txt

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* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/man/sr/man1/zsoelim-1-gz/zsoelim.1
* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/man/es/man5/manpath-5-gz/manpath.5
* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/man/it/man5/manpath-5-gz/manpath.5

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(Permission is granted to mak)72 576 R 3.071(ea)-.1 G .571(nd distrib)
E .42(Permission is granted to cop)72 612 R 2.92(ya)-.1 G .42
(Permission is granted to cop)72 660 R 3.619(ya)-.1 G 1.119(nd distrib)

Found in path(s):

* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/doc/man-db/man-db-manual.ps

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* /opt/cola/permits/1660492363_1683897904.7265444/0/man-db-2-8-6-1-1-x86-64-pkg-tar-xz/usr/share/man/de/man1/man-1-gz/man.1

1.173 gcc-libs 9.1.0-2

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Version 3.1, 31 March 2009

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1.174 json-cpp 1.9.4

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1.175 util-linux 2.38.1

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*/

NR START END SECTORS SIZE NAME UUID

```
1 32 7679 7648 3.7M 8f8378c0-01
2 7680 16383 8704 4.3M 8f8378c0-02
5 7936 12799 4864 2.4M
6 12544 16127 3584 1.8M
```

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```
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```

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```
WEV @@ WEV[B "1
```

```
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```

```
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```

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1.176 libcroco 0.6.13-1

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```
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```

That's all there is to it!

1.177 libsndfile 1.0.28 2

1.177.1 Available under license :

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1.179 jbig-kit 2.1

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1.180 c-ares 1.18.1

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation was a sponsoring member of the PSF.

All Python releases are Open Source (see <http://www.opensource.org> for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

| Release | Derived from | Year | Owner | GPL-compatible? (1) |
|----------------|--------------|-----------|------------|---------------------|
| 0.9.0 thru 1.2 | | 1991-1995 | CWI | yes |
| 1.3 thru 1.5.2 | 1.2 | 1995-1999 | CNRI | yes |
| 1.6 | 1.5.2 | 2000 | CNRI | no |
| 2.0 | 1.6 | 2000 | BeOpen.com | no |
| 1.6.1 | 1.6 | 2001 | CNRI | yes (2) |
| 2.1 | 2.0+1.6.1 | 2001 | PSF | no |
| 2.0.1 | 2.0+1.6.1 | 2001 | PSF | yes |
| 2.1.1 | 2.1+2.0.1 | 2001 | PSF | yes |
| 2.1.2 | 2.1.1 | 2002 | PSF | yes |
| 2.1.3 | 2.1.2 | 2002 | PSF | yes |
| 2.2 and above | 2.1.1 | 2001-now | PSF | yes |

Footnotes:

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's

direction to make these releases possible.

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1.182 x-crypto 0.0.0-20221012134737-56aed061732a

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Source: <https://github.com/processone/xmpp>

Files: *

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1.188 mdlayer-socket 0.4.0

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1.192 libpcap 1.10.1

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1.193 rfcill 2.34

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1.194 libffi 3.4.4

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1.196 minio-go 6.0.11+incompatible

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1.197 pcre 10.35

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Version 3, 29 June 2007

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getopt.c - my re-implementation of getopt.

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```

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```

-----
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<one line to give the program's name and a brief idea of what it does.>  
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```

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```
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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice
```

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The End

1.204 cdrtools 3.02a09-1

1.204.1 Available under license :

No license file was found, but licenses were detected in source scan.

#

Name: ISO 8859-7:2003 to Unicode

Unicode version: 4.0
Table version: 2.0
Table format: Format A
Date: 2003-Nov-12
Authors: Ken Whistler <kenw@sybase.com>

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General notes:

This table contains the data the Unicode Consortium has on how
ISO 8859-7:2003 characters map into Unicode.

ISO 8859-7:1987 is equivalent to ISO-IR-126, ELOT 928,
and ECMA 118. ISO 8859-7:2003 adds two currency signs
and one other character not in the earlier standard.

Format: Three tab-separated columns
Column #1 is the ISO 8859-7 code (in hex as 0xXX)
Column #2 is the Unicode (in hex as 0XXXXX)
Column #3 the Unicode name (follows a comment sign, '#')

The entries are in ISO 8859-7 order.

Version history
1.0 version updates 0.1 version by adding mappings for all
control characters.
Remap 0xA1 to U+2018 (instead of 0x02BD) to match text of 8859-7
Remap 0xA2 to U+2019 (instead of 0x02BC) to match text of 8859-7

2.0 version updates 1.0 version by adding mappings for the
three newly added characters 0xA4, 0xA5, 0xAA.

Updated versions of this file may be found in:

```
# <http://www.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact the Unicode Consortium at:
#   <http://www.unicode.org/reporting.html>
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
```

0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z

0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
0x86 0x0086 # <control>
0x87 0x0087 # <control>
0x88 0x0088 # <control>
0x89 0x0089 # <control>
0x8A 0x008A # <control>

0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
0x92 0x0092 # <control>
0x93 0x0093 # <control>
0x94 0x0094 # <control>
0x95 0x0095 # <control>
0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x2018 # LEFT SINGLE QUOTATION MARK
0xA2 0x2019 # RIGHT SINGLE QUOTATION MARK
0xA3 0x00A3 # POUND SIGN
0xA4 0x20AC # EURO SIGN
0xA5 0x20AF # DRACHMA SIGN
0xA6 0x00A6 # BROKEN BAR
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x037A # GREEK YPOGEGRAMMENI
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAF 0x2015 # HORIZONTAL BAR
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIPIT TWO
0xB3 0x00B3 # SUPERSCRIPIT THREE
0xB4 0x0384 # GREEK TONOS
0xB5 0x0385 # GREEK DIALYTIKA TONOS
0xB6 0x0386 # GREEK CAPITAL LETTER ALPHA WITH TONOS
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x0388 # GREEK CAPITAL LETTER EPSILON WITH TONOS
0xB9 0x0389 # GREEK CAPITAL LETTER ETA WITH TONOS
0xBA 0x038A # GREEK CAPITAL LETTER IOTA WITH TONOS
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK

0xBC 0x038C # GREEK CAPITAL LETTER OMICRON WITH TONOS
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBE 0x038E # GREEK CAPITAL LETTER UPSILON WITH TONOS
0xBF 0x038F # GREEK CAPITAL LETTER OMEGA WITH TONOS
0xC0 0x0390 # GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS
0xC1 0x0391 # GREEK CAPITAL LETTER ALPHA
0xC2 0x0392 # GREEK CAPITAL LETTER BETA
0xC3 0x0393 # GREEK CAPITAL LETTER GAMMA
0xC4 0x0394 # GREEK CAPITAL LETTER DELTA
0xC5 0x0395 # GREEK CAPITAL LETTER EPSILON
0xC6 0x0396 # GREEK CAPITAL LETTER ZETA
0xC7 0x0397 # GREEK CAPITAL LETTER ETA
0xC8 0x0398 # GREEK CAPITAL LETTER THETA
0xC9 0x0399 # GREEK CAPITAL LETTER IOTA
0xCA 0x039A # GREEK CAPITAL LETTER KAPPA
0xCB 0x039B # GREEK CAPITAL LETTER LAMDA
0xCC 0x039C # GREEK CAPITAL LETTER MU
0xCD 0x039D # GREEK CAPITAL LETTER NU
0xCE 0x039E # GREEK CAPITAL LETTER XI
0xCF 0x039F # GREEK CAPITAL LETTER OMICRON
0xD0 0x03A0 # GREEK CAPITAL LETTER PI
0xD1 0x03A1 # GREEK CAPITAL LETTER RHO
0xD3 0x03A3 # GREEK CAPITAL LETTER SIGMA
0xD4 0x03A4 # GREEK CAPITAL LETTER TAU
0xD5 0x03A5 # GREEK CAPITAL LETTER UPSILON
0xD6 0x03A6 # GREEK CAPITAL LETTER PHI
0xD7 0x03A7 # GREEK CAPITAL LETTER CHI
0xD8 0x03A8 # GREEK CAPITAL LETTER PSI
0xD9 0x03A9 # GREEK CAPITAL LETTER OMEGA
0xDA 0x03AA # GREEK CAPITAL LETTER IOTA WITH DIALYTIKA
0xDB 0x03AB # GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA
0xDC 0x03AC # GREEK SMALL LETTER ALPHA WITH TONOS
0xDD 0x03AD # GREEK SMALL LETTER EPSILON WITH TONOS
0xDE 0x03AE # GREEK SMALL LETTER ETA WITH TONOS
0xDF 0x03AF # GREEK SMALL LETTER IOTA WITH TONOS
0xE0 0x03B0 # GREEK SMALL LETTER UPSILON WITH DIALYTIKA AND TONOS
0xE1 0x03B1 # GREEK SMALL LETTER ALPHA
0xE2 0x03B2 # GREEK SMALL LETTER BETA
0xE3 0x03B3 # GREEK SMALL LETTER GAMMA
0xE4 0x03B4 # GREEK SMALL LETTER DELTA
0xE5 0x03B5 # GREEK SMALL LETTER EPSILON
0xE6 0x03B6 # GREEK SMALL LETTER ZETA
0xE7 0x03B7 # GREEK SMALL LETTER ETA
0xE8 0x03B8 # GREEK SMALL LETTER THETA
0xE9 0x03B9 # GREEK SMALL LETTER IOTA
0xEA 0x03BA # GREEK SMALL LETTER KAPPA
0xEB 0x03BB # GREEK SMALL LETTER LAMDA
0xEC 0x03BC # GREEK SMALL LETTER MU

0xED 0x03BD # GREEK SMALL LETTER NU
0xEE 0x03BE # GREEK SMALL LETTER XI
0xEF 0x03BF # GREEK SMALL LETTER OMICRON
0xF0 0x03C0 # GREEK SMALL LETTER PI
0xF1 0x03C1 # GREEK SMALL LETTER RHO
0xF2 0x03C2 # GREEK SMALL LETTER FINAL SIGMA
0xF3 0x03C3 # GREEK SMALL LETTER SIGMA
0xF4 0x03C4 # GREEK SMALL LETTER TAU
0xF5 0x03C5 # GREEK SMALL LETTER UPSILON
0xF6 0x03C6 # GREEK SMALL LETTER PHI
0xF7 0x03C7 # GREEK SMALL LETTER CHI
0xF8 0x03C8 # GREEK SMALL LETTER PSI
0xF9 0x03C9 # GREEK SMALL LETTER OMEGA
0xFA 0x03CA # GREEK SMALL LETTER IOTA WITH DIALYTIKA
0xFB 0x03CB # GREEK SMALL LETTER UPSILON WITH DIALYTIKA
0xFC 0x03CC # GREEK SMALL LETTER OMICRON WITH TONOS
0xFD 0x03CD # GREEK SMALL LETTER UPSILON WITH TONOS
0xFE 0x03CE # GREEK SMALL LETTER OMEGA WITH TONOS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-7

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#

Name: ISO/IEC 8859-11:2001 to Unicode

Unicode version: 3.2

Table version: 1.0

Table format: Format A

Date: 2002 October 7

Authors: Ken Whistler <kenw@sybase.com>

#

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#

```
# General notes:
#
# This table contains the data the Unicode Consortium has on how
# ISO/IEC 8859-11:2001 characters map into Unicode.
#
# ISO/IEC 8859-11:2001 is equivalent to TIS 620-2533 (1990) with
# the addition of 0xA0 NO-BREAK SPACE.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-11 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-11 order.
#
# Version history:
# 2002 October 7 Created
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# For any comments or problems, please use the Unicode
# web contact form at:
# http://www.unicode.org/unicode/reporting.html
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
```

0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F

0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V

0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
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0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0E01 # THAI CHARACTER KO KAI
0xA2 0x0E02 # THAI CHARACTER KHO KHAI
0xA3 0x0E03 # THAI CHARACTER KHO KHUAT
0xA4 0x0E04 # THAI CHARACTER KHO KHWAI
0xA5 0x0E05 # THAI CHARACTER KHO KHON
0xA6 0x0E06 # THAI CHARACTER KHO RAKHANG

0xA7 0x0E07 # THAI CHARACTER NGO NGU
0xA8 0x0E08 # THAI CHARACTER CHO CHAN
0xA9 0x0E09 # THAI CHARACTER CHO CHING
0xAA 0x0E0A # THAI CHARACTER CHO CHANG
0xAB 0x0E0B # THAI CHARACTER SO SO
0xAC 0x0E0C # THAI CHARACTER CHO CHOE
0xAD 0x0E0D # THAI CHARACTER YO YING
0xAE 0x0E0E # THAI CHARACTER DO CHADA
0xAF 0x0E0F # THAI CHARACTER TO PATAK
0xB0 0x0E10 # THAI CHARACTER THO THAN
0xB1 0x0E11 # THAI CHARACTER THO NANGMONTHO
0xB2 0x0E12 # THAI CHARACTER THO PHUTHAO
0xB3 0x0E13 # THAI CHARACTER NO NEN
0xB4 0x0E14 # THAI CHARACTER DO DEK
0xB5 0x0E15 # THAI CHARACTER TO TAO
0xB6 0x0E16 # THAI CHARACTER THO THUNG
0xB7 0x0E17 # THAI CHARACTER THO THAHAN
0xB8 0x0E18 # THAI CHARACTER THO THONG
0xB9 0x0E19 # THAI CHARACTER NO NU
0xBA 0x0E1A # THAI CHARACTER BO BAIMAI
0xBB 0x0E1B # THAI CHARACTER PO PLA
0xBC 0x0E1C # THAI CHARACTER PHO PHUNG
0xBD 0x0E1D # THAI CHARACTER FO FA
0xBE 0x0E1E # THAI CHARACTER PHO PHAN
0xBF 0x0E1F # THAI CHARACTER FO FAN
0xC0 0x0E20 # THAI CHARACTER PHO SAMPHAO
0xC1 0x0E21 # THAI CHARACTER MO MA
0xC2 0x0E22 # THAI CHARACTER YO YAK
0xC3 0x0E23 # THAI CHARACTER RO RUA
0xC4 0x0E24 # THAI CHARACTER RU
0xC5 0x0E25 # THAI CHARACTER LO LING
0xC6 0x0E26 # THAI CHARACTER LU
0xC7 0x0E27 # THAI CHARACTER WO WAEN
0xC8 0x0E28 # THAI CHARACTER SO SALA
0xC9 0x0E29 # THAI CHARACTER SO RUSI
0xCA 0x0E2A # THAI CHARACTER SO SUA
0xCB 0x0E2B # THAI CHARACTER HO HIP
0xCC 0x0E2C # THAI CHARACTER LO CHULA
0xCD 0x0E2D # THAI CHARACTER O ANG
0xCE 0x0E2E # THAI CHARACTER HO NOKHUK
0xCF 0x0E2F # THAI CHARACTER PAIYANNOI
0xD0 0x0E30 # THAI CHARACTER SARA A
0xD1 0x0E31 # THAI CHARACTER MAI HAN-AKAT
0xD2 0x0E32 # THAI CHARACTER SARA AA
0xD3 0x0E33 # THAI CHARACTER SARA AM
0xD4 0x0E34 # THAI CHARACTER SARA I
0xD5 0x0E35 # THAI CHARACTER SARA II
0xD6 0x0E36 # THAI CHARACTER SARA UE

0xD7 0x0E37 # THAI CHARACTER SARA UEE
0xD8 0x0E38 # THAI CHARACTER SARA U
0xD9 0x0E39 # THAI CHARACTER SARA UU
0xDA 0x0E3A # THAI CHARACTER PHINTHU
0xDF 0x0E3F # THAI CURRENCY SYMBOL BAHT
0xE0 0x0E40 # THAI CHARACTER SARA E
0xE1 0x0E41 # THAI CHARACTER SARA AE
0xE2 0x0E42 # THAI CHARACTER SARA O
0xE3 0x0E43 # THAI CHARACTER SARA AI MAIMUAN
0xE4 0x0E44 # THAI CHARACTER SARA AI MAIMALAI
0xE5 0x0E45 # THAI CHARACTER LAKKHANGYAO
0xE6 0x0E46 # THAI CHARACTER MAIYAMOK
0xE7 0x0E47 # THAI CHARACTER MAITAIKHU
0xE8 0x0E48 # THAI CHARACTER MAI EK
0xE9 0x0E49 # THAI CHARACTER MAI THO
0xEA 0x0E4A # THAI CHARACTER MAI TRI
0xEB 0x0E4B # THAI CHARACTER MAI CHATTAWA
0xEC 0x0E4C # THAI CHARACTER THANTHAKHAT
0xED 0x0E4D # THAI CHARACTER NIKHAHIT
0xEE 0x0E4E # THAI CHARACTER YAMAKKAN
0xEF 0x0E4F # THAI CHARACTER FONGMAN
0xF0 0x0E50 # THAI DIGIT ZERO
0xF1 0x0E51 # THAI DIGIT ONE
0xF2 0x0E52 # THAI DIGIT TWO
0xF3 0x0E53 # THAI DIGIT THREE
0xF4 0x0E54 # THAI DIGIT FOUR
0xF5 0x0E55 # THAI DIGIT FIVE
0xF6 0x0E56 # THAI DIGIT SIX
0xF7 0x0E57 # THAI DIGIT SEVEN
0xF8 0x0E58 # THAI DIGIT EIGHT
0xF9 0x0E59 # THAI DIGIT NINE
0xFA 0x0E5A # THAI CHARACTER ANGKHANKHU
0xFB 0x0E5B # THAI CHARACTER KHOMUT

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-11

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* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/bin/cdda2mp3

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```
#
# Name:      ISO/IEC 8859-8:1999 to Unicode
# Unicode version: 3.0
# Table version: 1.1
# Table format:  Format A
# Date:      2000-Jan-03
# Authors:    Ken Whistler <kenw@sybase.com>
#
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# attached.
#
# General notes:
#
# This table contains the data the Unicode Consortium has on how
# ISO/IEC 8859-8:1999 characters map into Unicode.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-8 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-8 order.
#
# Version history
# 1.0 version updates 0.1 version by adding mappings for all
# control characters.
# 1.1 version updates to the published 8859-8:1999, correcting
# the mapping of 0xAF and adding mappings for LRM and RLM.
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
```


0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP

0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT

0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
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0x8E 0x008E # <control>

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0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA2 0x00A2 # CENT SIGN
0xA3 0x00A3 # POUND SIGN
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x00A5 # YEN SIGN
0xA6 0x00A6 # BROKEN BAR
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x00D7 # MULTIPLICATION SIGN
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x00AF # MACRON
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIP T TWO
0xB3 0x00B3 # SUPERSCRIP T THREE
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x00B5 # MICRO SIGN
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x00B8 # CEDILLA
0xB9 0x00B9 # SUPERSCRIP T ONE
0xBA 0x00F7 # DIVISION SIGN
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x00BC # VULGAR FRACTION ONE QUARTER
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBE 0x00BE # VULGAR FRACTION THREE QUARTERS
0xDF 0x2017 # DOUBLE LOW LINE

0xE0 0x05D0 # HEBREW LETTER ALEF
0xE1 0x05D1 # HEBREW LETTER BET
0xE2 0x05D2 # HEBREW LETTER GIMEL
0xE3 0x05D3 # HEBREW LETTER DALET
0xE4 0x05D4 # HEBREW LETTER HE
0xE5 0x05D5 # HEBREW LETTER VAV
0xE6 0x05D6 # HEBREW LETTER ZAYIN
0xE7 0x05D7 # HEBREW LETTER HET
0xE8 0x05D8 # HEBREW LETTER TET
0xE9 0x05D9 # HEBREW LETTER YOD
0xEA 0x05DA # HEBREW LETTER FINAL KAF
0xEB 0x05DB # HEBREW LETTER KAF
0xEC 0x05DC # HEBREW LETTER LAMED
0xED 0x05DD # HEBREW LETTER FINAL MEM
0xEE 0x05DE # HEBREW LETTER MEM
0xEF 0x05DF # HEBREW LETTER FINAL NUN
0xF0 0x05E0 # HEBREW LETTER NUN
0xF1 0x05E1 # HEBREW LETTER SAMEKH
0xF2 0x05E2 # HEBREW LETTER AYIN
0xF3 0x05E3 # HEBREW LETTER FINAL PE
0xF4 0x05E4 # HEBREW LETTER PE
0xF5 0x05E5 # HEBREW LETTER FINAL TSADI
0xF6 0x05E6 # HEBREW LETTER TSADI
0xF7 0x05E7 # HEBREW LETTER QOF
0xF8 0x05E8 # HEBREW LETTER RESH
0xF9 0x05E9 # HEBREW LETTER SHIN
0xFA 0x05EA # HEBREW LETTER TAV
0xFD 0x200E # LEFT-TO-RIGHT MARK
0xFE 0x200F # RIGHT-TO-LEFT MARK

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-8

No license file was found, but licenses were detected in source scan.

#

Name: ISO/IEC 8859-1:1998 to Unicode

Unicode version: 3.0

Table version: 1.0

Table format: Format A

Date: 1999 July 27

Authors: Ken Whistler <kenw@sybase.com>

#

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#

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#
# General notes:
#
# This table contains the data the Unicode Consortium has on how
#   ISO/IEC 8859-1:1998 characters map into Unicode.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-1 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-1 order.
#
# Version history
# 1.0 version updates 0.1 version by adding mappings for all
# control characters.
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
```


0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN

0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M

0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
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0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>

0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x00A1 # INVERTED EXCLAMATION MARK
0xA2 0x00A2 # CENT SIGN
0xA3 0x00A3 # POUND SIGN
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x00A5 # YEN SIGN
0xA6 0x00A6 # BROKEN BAR
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x00AA # FEMININE ORDINAL INDICATOR
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x00AF # MACRON
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIPT TWO
0xB3 0x00B3 # SUPERSCRIPT THREE
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x00B5 # MICRO SIGN
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x00B8 # CEDILLA
0xB9 0x00B9 # SUPERSCRIPT ONE
0xBA 0x00BA # MASCULINE ORDINAL INDICATOR
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x00BC # VULGAR FRACTION ONE QUARTER
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBE 0x00BE # VULGAR FRACTION THREE QUARTERS
0xBF 0x00BF # INVERTED QUESTION MARK
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE

0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x00D0 # LATIN CAPITAL LETTER ETH (Icelandic)
0xD1 0x00D1 # LATIN CAPITAL LETTER N WITH TILDE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x00DD # LATIN CAPITAL LETTER Y WITH ACUTE
0xDE 0x00DE # LATIN CAPITAL LETTER THORN (Icelandic)
0xDF 0x00DF # LATIN SMALL LETTER SHARP S (German)
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA
0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x00F0 # LATIN SMALL LETTER ETH (Icelandic)
0xF1 0x00F1 # LATIN SMALL LETTER N WITH TILDE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x00FD # LATIN SMALL LETTER Y WITH ACUTE

0xFE 0x00FE # LATIN SMALL LETTER THORN (Icelandic)
0xFF 0x00FF # LATIN SMALL LETTER Y WITH DIAERESIS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-1

No license file was found, but licenses were detected in source scan.

```
#
# Name:          ISO/IEC 8859-4:1998 to Unicode
# Unicode version: 3.0
# Table version: 1.0
# Table format:  Format A
# Date:         1999 July 27
# Authors:      Ken Whistler <kenw@sybase.com>
#
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#
# General notes:
#
# This table contains the data the Unicode Consortium has on how
# ISO/IEC 8859-4:1998 characters map into Unicode.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-4 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-4 order.
#
# Version history
# 1.0 version updates 0.1 version by adding mappings for all
# control characters.
#
```

```
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
```

0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X

0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
0x86 0x0086 # <control>
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0x89 0x0089 # <control>
0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
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0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0104 # LATIN CAPITAL LETTER A WITH OGONEK
0xA2 0x0138 # LATIN SMALL LETTER KRA
0xA3 0x0156 # LATIN CAPITAL LETTER R WITH CEDILLA
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x0128 # LATIN CAPITAL LETTER I WITH TILDE
0xA6 0x013B # LATIN CAPITAL LETTER L WITH CEDILLA
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xAA 0x0112 # LATIN CAPITAL LETTER E WITH MACRON
0xAB 0x0122 # LATIN CAPITAL LETTER G WITH CEDILLA
0xAC 0x0166 # LATIN CAPITAL LETTER T WITH STROKE
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xAF 0x00AF # MACRON
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x0105 # LATIN SMALL LETTER A WITH OGONEK
0xB2 0x02DB # OGONEK
0xB3 0x0157 # LATIN SMALL LETTER R WITH CEDILLA
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x0129 # LATIN SMALL LETTER I WITH TILDE
0xB6 0x013C # LATIN SMALL LETTER L WITH CEDILLA
0xB7 0x02C7 # CARON
0xB8 0x00B8 # CEDILLA

0xB9 0x0161 # LATIN SMALL LETTER S WITH CARON
0xBA 0x0113 # LATIN SMALL LETTER E WITH MACRON
0xBB 0x0123 # LATIN SMALL LETTER G WITH CEDILLA
0xBC 0x0167 # LATIN SMALL LETTER T WITH STROKE
0xBD 0x014A # LATIN CAPITAL LETTER ENG
0xBE 0x017E # LATIN SMALL LETTER Z WITH CARON
0xBF 0x014B # LATIN SMALL LETTER ENG
0xC0 0x0100 # LATIN CAPITAL LETTER A WITH MACRON
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x012E # LATIN CAPITAL LETTER I WITH OGONEK
0xC8 0x010C # LATIN CAPITAL LETTER C WITH CARON
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x0118 # LATIN CAPITAL LETTER E WITH OGONEK
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x0116 # LATIN CAPITAL LETTER E WITH DOT ABOVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x012A # LATIN CAPITAL LETTER I WITH MACRON
0xD0 0x0110 # LATIN CAPITAL LETTER D WITH STROKE
0xD1 0x0145 # LATIN CAPITAL LETTER N WITH CEDILLA
0xD2 0x014C # LATIN CAPITAL LETTER O WITH MACRON
0xD3 0x0136 # LATIN CAPITAL LETTER K WITH CEDILLA
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x0172 # LATIN CAPITAL LETTER U WITH OGONEK
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x0168 # LATIN CAPITAL LETTER U WITH TILDE
0xDE 0x016A # LATIN CAPITAL LETTER U WITH MACRON
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x0101 # LATIN SMALL LETTER A WITH MACRON
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x012F # LATIN SMALL LETTER I WITH OGONEK
0xE8 0x010D # LATIN SMALL LETTER C WITH CARON

0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x0119 # LATIN SMALL LETTER E WITH OGONEK
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x0117 # LATIN SMALL LETTER E WITH DOT ABOVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x012B # LATIN SMALL LETTER I WITH MACRON
0xF0 0x0111 # LATIN SMALL LETTER D WITH STROKE
0xF1 0x0146 # LATIN SMALL LETTER N WITH CEDILLA
0xF2 0x014D # LATIN SMALL LETTER O WITH MACRON
0xF3 0x0137 # LATIN SMALL LETTER K WITH CEDILLA
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x0173 # LATIN SMALL LETTER U WITH OGONEK
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x0169 # LATIN SMALL LETTER U WITH TILDE
0xFE 0x016B # LATIN SMALL LETTER U WITH MACRON
0xFF 0x02D9 # DOT ABOVE

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-4

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#

Name: ISO 8859-6:1999 to Unicode

Unicode version: 3.0

Table version: 1.0

Table format: Format A

Date: 1999 July 27

Authors: Ken Whistler <kenw@sybase.com>

#

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#

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# internal or external distribution as long as this notice remains
# attached.
#
# General notes:
#
# This table contains the data the Unicode Consortium has on how
# ISO/IEC 8859-6:1999 characters map into Unicode.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-6 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-6 order.
#
# Version history
# 1.0 version updates 0.1 version by adding mappings for all
# control characters.
# 0x30..0x39 remapped to the ASCII digits (U+0030..U+0039) instead
# of the Arabic digits (U+0660..U+0669).
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
```

0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A

0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q

0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
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0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
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0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA4 0x00A4 # CURRENCY SIGN

0xAC 0x060C # ARABIC COMMA
0xAD 0x00AD # SOFT HYPHEN
0xBB 0x061B # ARABIC SEMICOLON
0xBF 0x061F # ARABIC QUESTION MARK
0xC1 0x0621 # ARABIC LETTER HAMZA
0xC2 0x0622 # ARABIC LETTER ALEF WITH MADDA ABOVE
0xC3 0x0623 # ARABIC LETTER ALEF WITH HAMZA ABOVE
0xC4 0x0624 # ARABIC LETTER WAW WITH HAMZA ABOVE
0xC5 0x0625 # ARABIC LETTER ALEF WITH HAMZA BELOW
0xC6 0x0626 # ARABIC LETTER YEH WITH HAMZA ABOVE
0xC7 0x0627 # ARABIC LETTER ALEF
0xC8 0x0628 # ARABIC LETTER BEH
0xC9 0x0629 # ARABIC LETTER TEH MARBUTA
0xCA 0x062A # ARABIC LETTER TEH
0xCB 0x062B # ARABIC LETTER THEH
0xCC 0x062C # ARABIC LETTER JEEM
0xCD 0x062D # ARABIC LETTER HAH
0xCE 0x062E # ARABIC LETTER KHAH
0xCF 0x062F # ARABIC LETTER DAL
0xD0 0x0630 # ARABIC LETTER THAL
0xD1 0x0631 # ARABIC LETTER REH
0xD2 0x0632 # ARABIC LETTER ZAIN
0xD3 0x0633 # ARABIC LETTER SEEN
0xD4 0x0634 # ARABIC LETTER SHEEN
0xD5 0x0635 # ARABIC LETTER SAD
0xD6 0x0636 # ARABIC LETTER DAD
0xD7 0x0637 # ARABIC LETTER TAH
0xD8 0x0638 # ARABIC LETTER ZAH
0xD9 0x0639 # ARABIC LETTER AIN
0xDA 0x063A # ARABIC LETTER GHAIN
0xE0 0x0640 # ARABIC TATWEEL
0xE1 0x0641 # ARABIC LETTER FEH
0xE2 0x0642 # ARABIC LETTER QAF
0xE3 0x0643 # ARABIC LETTER KAF
0xE4 0x0644 # ARABIC LETTER LAM
0xE5 0x0645 # ARABIC LETTER MEEM
0xE6 0x0646 # ARABIC LETTER NOON
0xE7 0x0647 # ARABIC LETTER HEH
0xE8 0x0648 # ARABIC LETTER WAW
0xE9 0x0649 # ARABIC LETTER ALEF MAKSURA
0xEA 0x064A # ARABIC LETTER YEH
0xEB 0x064B # ARABIC FATHATAN
0xEC 0x064C # ARABIC DAMMATAN
0xED 0x064D # ARABIC KASRATAN
0xEE 0x064E # ARABIC FATHA
0xEF 0x064F # ARABIC DAMMA
0xF0 0x0650 # ARABIC KASRA
0xF1 0x0651 # ARABIC SHADDA

0xF2 0x0652 # ARABIC SUKUN

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-6

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#

Name: ISO/IEC 8859-9:1999 to Unicode

Unicode version: 3.0

Table version: 1.0

Table format: Format A

Date: 1999 July 27

Authors: Ken Whistler <kenw@sybase.com>

#

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#

General notes:

#

This table contains the data the Unicode Consortium has on how

ISO/IEC 8859-9:1999 characters map into Unicode.

#

Format: Three tab-separated columns

Column #1 is the ISO/IEC 8859-9 code (in hex as 0xXX)

Column #2 is the Unicode (in hex as 0XXXXX)

Column #3 the Unicode name (follows a comment sign, '#')

#

The entries are in ISO/IEC 8859-9 order.

#

ISO/IEC 8859-9 is also equivalent to ISO-IR-148.

#

Version history

1.0 version updates 0.1 version by adding mappings for all

control characters.

```
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
```

0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W

0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
0x86 0x0086 # <control>
0x87 0x0087 # <control>

0x88 0x0088 # <control>
0x89 0x0089 # <control>
0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
0x92 0x0092 # <control>
0x93 0x0093 # <control>
0x94 0x0094 # <control>
0x95 0x0095 # <control>
0x96 0x0096 # <control>
0x97 0x0097 # <control>
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0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x00A1 # INVERTED EXCLAMATION MARK
0xA2 0x00A2 # CENT SIGN
0xA3 0x00A3 # POUND SIGN
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x00A5 # YEN SIGN
0xA6 0x00A6 # BROKEN BAR
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x00AA # FEMININE ORDINAL INDICATOR
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x00AF # MACRON
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIP T TWO
0xB3 0x00B3 # SUPERSCRIP T THREE
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x00B5 # MICRO SIGN
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT

0xB8 0x00B8 # CEDILLA
0xB9 0x00B9 # SUPERSCRIPIT ONE
0xBA 0x00BA # MASCULINE ORDINAL INDICATOR
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x00BC # VULGAR FRACTION ONE QUARTER
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBE 0x00BE # VULGAR FRACTION THREE QUARTERS
0xBF 0x00BF # INVERTED QUESTION MARK
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x011E # LATIN CAPITAL LETTER G WITH BREVE
0xD1 0x00D1 # LATIN CAPITAL LETTER N WITH TILDE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x0130 # LATIN CAPITAL LETTER I WITH DOT ABOVE
0xDE 0x015E # LATIN CAPITAL LETTER S WITH CEDILLA
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA

0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x011F # LATIN SMALL LETTER G WITH BREVE
0xF1 0x00F1 # LATIN SMALL LETTER N WITH TILDE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x0131 # LATIN SMALL LETTER DOTLESS I
0xFE 0x015F # LATIN SMALL LETTER S WITH CEDILLA
0xFF 0x00FF # LATIN SMALL LETTER Y WITH DIAERESIS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-9

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Name: ISO/IEC 8859-10:1998 to Unicode
Unicode version: 3.0
Table version: 1.1
Table format: Format A
Date: 1999 October 11
Authors: Ken Whistler <kenw@sybase.com>

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#

General notes:

#

This table contains the data the Unicode Consortium has on how
ISO/IEC 8859-10:1998 characters map into Unicode.

#

Format: Three tab-separated columns

Column #1 is the ISO/IEC 8859-10 code (in hex as 0xXX)

Column #2 is the Unicode (in hex as 0XXXXX)

Column #3 the Unicode name (follows a comment sign, '#')

#

The entries are in ISO/IEC 8859-10 order.

#

Version history

1.0 version new.

1.1 corrected mistake in mapping of 0xA4

#

Updated versions of this file may be found in:

<<ftp://ftp.unicode.org/Public/MAPPINGS/>>

#

Any comments or problems, contact <errata@unicode.org>

Please note that <errata@unicode.org> is an archival address;

notices will be checked, but do not expect an immediate response.

#

0x00 0x0000 # NULL

0x01 0x0001 # START OF HEADING

0x02 0x0002 # START OF TEXT

0x03 0x0003 # END OF TEXT

0x04 0x0004 # END OF TRANSMISSION

0x05 0x0005 # ENQUIRY

0x06 0x0006 # ACKNOWLEDGE

0x07 0x0007 # BELL

0x08 0x0008 # BACKSPACE

0x09 0x0009 # HORIZONTAL TABULATION

0x0A 0x000A # LINE FEED

0x0B 0x000B # VERTICAL TABULATION

0x0C 0x000C # FORM FEED

0x0D 0x000D # CARRIAGE RETURN

0x0E 0x000E # SHIFT OUT

0x0F 0x000F # SHIFT IN

0x10 0x0010 # DATA LINK ESCAPE

0x11 0x0011 # DEVICE CONTROL ONE

0x12 0x0012 # DEVICE CONTROL TWO

0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B

0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R

0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
0x86 0x0086 # <control>
0x87 0x0087 # <control>
0x88 0x0088 # <control>
0x89 0x0089 # <control>
0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
0x92 0x0092 # <control>
0x93 0x0093 # <control>
0x94 0x0094 # <control>
0x95 0x0095 # <control>
0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0104 # LATIN CAPITAL LETTER A WITH OGONEK
0xA2 0x0112 # LATIN CAPITAL LETTER E WITH MACRON

0xA3 0x0122 # LATIN CAPITAL LETTER G WITH CEDILLA
0xA4 0x012A # LATIN CAPITAL LETTER I WITH MACRON
0xA5 0x0128 # LATIN CAPITAL LETTER I WITH TILDE
0xA6 0x0136 # LATIN CAPITAL LETTER K WITH CEDILLA
0xA7 0x00A7 # SECTION SIGN
0xA8 0x013B # LATIN CAPITAL LETTER L WITH CEDILLA
0xA9 0x0110 # LATIN CAPITAL LETTER D WITH STROKE
0xAA 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xAB 0x0166 # LATIN CAPITAL LETTER T WITH STROKE
0xAC 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x016A # LATIN CAPITAL LETTER U WITH MACRON
0xAF 0x014A # LATIN CAPITAL LETTER ENG
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x0105 # LATIN SMALL LETTER A WITH OGONEK
0xB2 0x0113 # LATIN SMALL LETTER E WITH MACRON
0xB3 0x0123 # LATIN SMALL LETTER G WITH CEDILLA
0xB4 0x012B # LATIN SMALL LETTER I WITH MACRON
0xB5 0x0129 # LATIN SMALL LETTER I WITH TILDE
0xB6 0x0137 # LATIN SMALL LETTER K WITH CEDILLA
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x013C # LATIN SMALL LETTER L WITH CEDILLA
0xB9 0x0111 # LATIN SMALL LETTER D WITH STROKE
0xBA 0x0161 # LATIN SMALL LETTER S WITH CARON
0xBB 0x0167 # LATIN SMALL LETTER T WITH STROKE
0xBC 0x017E # LATIN SMALL LETTER Z WITH CARON
0xBD 0x2015 # HORIZONTAL BAR
0xBE 0x016B # LATIN SMALL LETTER U WITH MACRON
0xBF 0x014B # LATIN SMALL LETTER ENG
0xC0 0x0100 # LATIN CAPITAL LETTER A WITH MACRON
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x012E # LATIN CAPITAL LETTER I WITH OGONEK
0xC8 0x010C # LATIN CAPITAL LETTER C WITH CARON
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x0118 # LATIN CAPITAL LETTER E WITH OGONEK
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x0116 # LATIN CAPITAL LETTER E WITH DOT ABOVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x00D0 # LATIN CAPITAL LETTER ETH (Icelandic)
0xD1 0x0145 # LATIN CAPITAL LETTER N WITH CEDILLA
0xD2 0x014C # LATIN CAPITAL LETTER O WITH MACRON

0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x0168 # LATIN CAPITAL LETTER U WITH TILDE
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x0172 # LATIN CAPITAL LETTER U WITH OGONEK
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x00DD # LATIN CAPITAL LETTER Y WITH ACUTE
0xDE 0x00DE # LATIN CAPITAL LETTER THORN (Icelandic)
0xDF 0x00DF # LATIN SMALL LETTER SHARP S (German)
0xE0 0x0101 # LATIN SMALL LETTER A WITH MACRON
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x012F # LATIN SMALL LETTER I WITH OGONEK
0xE8 0x010D # LATIN SMALL LETTER C WITH CARON
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x0119 # LATIN SMALL LETTER E WITH OGONEK
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x0117 # LATIN SMALL LETTER E WITH DOT ABOVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x00F0 # LATIN SMALL LETTER ETH (Icelandic)
0xF1 0x0146 # LATIN SMALL LETTER N WITH CEDILLA
0xF2 0x014D # LATIN SMALL LETTER O WITH MACRON
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x0169 # LATIN SMALL LETTER U WITH TILDE
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x0173 # LATIN SMALL LETTER U WITH OGONEK
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x00FD # LATIN SMALL LETTER Y WITH ACUTE
0xFE 0x00FE # LATIN SMALL LETTER THORN (Icelandic)
0xFF 0x0138 # LATIN SMALL LETTER KRA

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-

xz/usr/lib/siconv/iso8859-10

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#
# Name:      KOI8-U (RFC2319) to Unicode
# Unicode version: 3.2
# Table version: 1.0
# Table format:  Format A
# Date:      2005-10-25
# Authors:   Marc-Andre Lemburg <mal@egenix.com>
#
# See RFC2319 for details. This encoding is a modified KOI8-R
# encoding.
#
# (c) Copyright Marc-Andre Lemburg, 2005.
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#
# Based on the file
# ftp://ftp.unicode.org/Public/MAPPINGS/VENDORS/MISC/KOI8-R.TXT
# which is:
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#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
```

0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON

0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J

0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x2500 # BOX DRAWINGS LIGHT HORIZONTAL
0x81 0x2502 # BOX DRAWINGS LIGHT VERTICAL
0x82 0x250C # BOX DRAWINGS LIGHT DOWN AND RIGHT
0x83 0x2510 # BOX DRAWINGS LIGHT DOWN AND LEFT
0x84 0x2514 # BOX DRAWINGS LIGHT UP AND RIGHT
0x85 0x2518 # BOX DRAWINGS LIGHT UP AND LEFT
0x86 0x251C # BOX DRAWINGS LIGHT VERTICAL AND RIGHT
0x87 0x2524 # BOX DRAWINGS LIGHT VERTICAL AND LEFT
0x88 0x252C # BOX DRAWINGS LIGHT DOWN AND HORIZONTAL
0x89 0x2534 # BOX DRAWINGS LIGHT UP AND HORIZONTAL
0x8A 0x253C # BOX DRAWINGS LIGHT VERTICAL AND HORIZONTAL
0x8B 0x2580 # UPPER HALF BLOCK
0x8C 0x2584 # LOWER HALF BLOCK
0x8D 0x2588 # FULL BLOCK
0x8E 0x258C # LEFT HALF BLOCK
0x8F 0x2590 # RIGHT HALF BLOCK
0x90 0x2591 # LIGHT SHADE
0x91 0x2592 # MEDIUM SHADE
0x92 0x2593 # DARK SHADE
0x93 0x2320 # TOP HALF INTEGRAL
0x94 0x25A0 # BLACK SQUARE
0x95 0x2219 # BULLET OPERATOR
0x96 0x221A # SQUARE ROOT
0x97 0x2248 # ALMOST EQUAL TO
0x98 0x2264 # LESS-THAN OR EQUAL TO
0x99 0x2265 # GREATER-THAN OR EQUAL TO
0x9A 0x00A0 # NO-BREAK SPACE

0x9B 0x2321 # BOTTOM HALF INTEGRAL
0x9C 0x00B0 # DEGREE SIGN
0x9D 0x00B2 # SUPERSCRIP TWO
0x9E 0x00B7 # MIDDLE DOT
0x9F 0x00F7 # DIVISION SIGN
0xA0 0x2550 # BOX DRAWINGS DOUBLE HORIZONTAL
0xA1 0x2551 # BOX DRAWINGS DOUBLE VERTICAL
0xA2 0x2552 # BOX DRAWINGS DOWN SINGLE AND RIGHT DOUBLE
0xA3 0x0451 # CYRILLIC SMALL LETTER IO
#0xA4 0x2553 # BOX DRAWINGS DOWN DOUBLE AND RIGHT SINGLE
0xA4 0x0454 # CYRILLIC SMALL LETTER UKRAINIAN IE
0xA5 0x2554 # BOX DRAWINGS DOUBLE DOWN AND RIGHT
#0xA6 0x2555 # BOX DRAWINGS DOWN SINGLE AND LEFT DOUBLE
0xA6 0x0456 # CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
#0xA7 0x2556 # BOX DRAWINGS DOWN DOUBLE AND LEFT SINGLE
0xA7 0x0457 # CYRILLIC SMALL LETTER YI (UKRAINIAN)
0xA8 0x2557 # BOX DRAWINGS DOUBLE DOWN AND LEFT
0xA9 0x2558 # BOX DRAWINGS UP SINGLE AND RIGHT DOUBLE
0xAA 0x2559 # BOX DRAWINGS UP DOUBLE AND RIGHT SINGLE
0xAB 0x255A # BOX DRAWINGS DOUBLE UP AND RIGHT
0xAC 0x255B # BOX DRAWINGS UP SINGLE AND LEFT DOUBLE
#0xAD 0x255C # BOX DRAWINGS UP DOUBLE AND LEFT SINGLE
0xAD 0x0491 # CYRILLIC SMALL LETTER UKRAINIAN GHE WITH UPTURN
0xAE 0x255D # BOX DRAWINGS DOUBLE UP AND LEFT
0xAF 0x255E # BOX DRAWINGS VERTICAL SINGLE AND RIGHT DOUBLE
0xB0 0x255F # BOX DRAWINGS VERTICAL DOUBLE AND RIGHT SINGLE
0xB1 0x2560 # BOX DRAWINGS DOUBLE VERTICAL AND RIGHT
0xB2 0x2561 # BOX DRAWINGS VERTICAL SINGLE AND LEFT DOUBLE
0xB3 0x0401 # CYRILLIC CAPITAL LETTER IO
#0xB4 0x2562 # BOX DRAWINGS VERTICAL DOUBLE AND LEFT SINGLE
0xB4 0x0404 # CYRILLIC CAPITAL LETTER UKRAINIAN IE
0xB5 0x2563 # BOX DRAWINGS DOUBLE VERTICAL AND LEFT
#0xB6 0x2564 # BOX DRAWINGS DOWN SINGLE AND HORIZONTAL DOUBLE
0xB6 0x0406 # CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
#0xB7 0x2565 # BOX DRAWINGS DOWN DOUBLE AND HORIZONTAL SINGLE
0xB7 0x0407 # CYRILLIC CAPITAL LETTER YI (UKRAINIAN)
0xB8 0x2566 # BOX DRAWINGS DOUBLE DOWN AND HORIZONTAL
0xB9 0x2567 # BOX DRAWINGS UP SINGLE AND HORIZONTAL DOUBLE
0xBA 0x2568 # BOX DRAWINGS UP DOUBLE AND HORIZONTAL SINGLE
0xBB 0x2569 # BOX DRAWINGS DOUBLE UP AND HORIZONTAL
0xBC 0x256A # BOX DRAWINGS VERTICAL SINGLE AND HORIZONTAL DOUBLE
#0xBD 0x256B # BOX DRAWINGS VERTICAL DOUBLE AND HORIZONTAL SINGLE
0xBD 0x0490 # CYRILLIC CAPITAL LETTER UKRAINIAN GHE WITH UPTURN
0xBE 0x256C # BOX DRAWINGS DOUBLE VERTICAL AND HORIZONTAL
0xBF 0x00A9 # COPYRIGHT SIGN
0xC0 0x044E # CYRILLIC SMALL LETTER YU
0xC1 0x0430 # CYRILLIC SMALL LETTER A
0xC2 0x0431 # CYRILLIC SMALL LETTER BE

0xC3 0x0446 # CYRILLIC SMALL LETTER TSE
0xC4 0x0434 # CYRILLIC SMALL LETTER DE
0xC5 0x0435 # CYRILLIC SMALL LETTER IE
0xC6 0x0444 # CYRILLIC SMALL LETTER EF
0xC7 0x0433 # CYRILLIC SMALL LETTER GHE
0xC8 0x0445 # CYRILLIC SMALL LETTER HA
0xC9 0x0438 # CYRILLIC SMALL LETTER I
0xCA 0x0439 # CYRILLIC SMALL LETTER SHORT I
0xCB 0x043A # CYRILLIC SMALL LETTER KA
0xCC 0x043B # CYRILLIC SMALL LETTER EL
0xCD 0x043C # CYRILLIC SMALL LETTER EM
0xCE 0x043D # CYRILLIC SMALL LETTER EN
0xCF 0x043E # CYRILLIC SMALL LETTER O
0xD0 0x043F # CYRILLIC SMALL LETTER PE
0xD1 0x044F # CYRILLIC SMALL LETTER YA
0xD2 0x0440 # CYRILLIC SMALL LETTER ER
0xD3 0x0441 # CYRILLIC SMALL LETTER ES
0xD4 0x0442 # CYRILLIC SMALL LETTER TE
0xD5 0x0443 # CYRILLIC SMALL LETTER U
0xD6 0x0436 # CYRILLIC SMALL LETTER ZHE
0xD7 0x0432 # CYRILLIC SMALL LETTER VE
0xD8 0x044C # CYRILLIC SMALL LETTER SOFT SIGN
0xD9 0x044B # CYRILLIC SMALL LETTER YERU
0xDA 0x0437 # CYRILLIC SMALL LETTER ZE
0xDB 0x0448 # CYRILLIC SMALL LETTER SHA
0xDC 0x044D # CYRILLIC SMALL LETTER E
0xDD 0x0449 # CYRILLIC SMALL LETTER SHCHA
0xDE 0x0447 # CYRILLIC SMALL LETTER CHE
0xDF 0x044A # CYRILLIC SMALL LETTER HARD SIGN
0xE0 0x042E # CYRILLIC CAPITAL LETTER YU
0xE1 0x0410 # CYRILLIC CAPITAL LETTER A
0xE2 0x0411 # CYRILLIC CAPITAL LETTER BE
0xE3 0x0426 # CYRILLIC CAPITAL LETTER TSE
0xE4 0x0414 # CYRILLIC CAPITAL LETTER DE
0xE5 0x0415 # CYRILLIC CAPITAL LETTER IE
0xE6 0x0424 # CYRILLIC CAPITAL LETTER EF
0xE7 0x0413 # CYRILLIC CAPITAL LETTER GHE
0xE8 0x0425 # CYRILLIC CAPITAL LETTER HA
0xE9 0x0418 # CYRILLIC CAPITAL LETTER I
0xEA 0x0419 # CYRILLIC CAPITAL LETTER SHORT I
0xEB 0x041A # CYRILLIC CAPITAL LETTER KA
0xEC 0x041B # CYRILLIC CAPITAL LETTER EL
0xED 0x041C # CYRILLIC CAPITAL LETTER EM
0xEE 0x041D # CYRILLIC CAPITAL LETTER EN
0xEF 0x041E # CYRILLIC CAPITAL LETTER O
0xF0 0x041F # CYRILLIC CAPITAL LETTER PE
0xF1 0x042F # CYRILLIC CAPITAL LETTER YA
0xF2 0x0420 # CYRILLIC CAPITAL LETTER ER

0xF3 0x0421 # CYRILLIC CAPITAL LETTER ES
0xF4 0x0422 # CYRILLIC CAPITAL LETTER TE
0xF5 0x0423 # CYRILLIC CAPITAL LETTER U
0xF6 0x0416 # CYRILLIC CAPITAL LETTER ZHE
0xF7 0x0412 # CYRILLIC CAPITAL LETTER VE
0xF8 0x042C # CYRILLIC CAPITAL LETTER SOFT SIGN
0xF9 0x042B # CYRILLIC CAPITAL LETTER YERU
0xFA 0x0417 # CYRILLIC CAPITAL LETTER ZE
0xFB 0x0428 # CYRILLIC CAPITAL LETTER SHA
0xFC 0x042D # CYRILLIC CAPITAL LETTER E
0xFD 0x0429 # CYRILLIC CAPITAL LETTER SHCHA
0xFE 0x0427 # CYRILLIC CAPITAL LETTER CHE
0xFF 0x042A # CYRILLIC CAPITAL LETTER HARD SIGN

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/koi8-u

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replaced by Sony proprietary commands. It seems that all Sony drives (even
newer ones) still implement the Sony proprietary SCSI commands so it has

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/man/man1/cdrecord-1-gz/cdrecord.1

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Hi dear cdrom drive users,

This README describes hardware related matters as well as the installation of
cdda2wav, the sampling utility.

The last big change was the inclusion in Joerg Schillings cdrecord package
as you may have noticed :-)

That means most of the cdrecord interfacing applies for cdda2wav as well.

I decided to retire the standalone version slowly, and to do all new
development in this bundled variant.

Requirements

=====

For SCSI cdroms and CD-writers, as well as SCSI-emulated ATAPIS and parallel
port drives

1s. kernel support for SCSI, the host adapter, SCSI cdroms and the

generic SCSI interface (if under Linux). You need to have the proper device descriptors (get them under Linux with the MAKEDEV script from /dev).

For ATAPI cdroms under Linux

1a. kernel support for the ATAPI cdrom driver or alternatively ide-scsi emulation. You need to have the proper device descriptors (get them with the MAKEDEV script from /dev).

For parallel port cdroms under Linux

With newer kernels cdda2wav uses the same parallel port access as does cdrecord. Please refer additionally to the cdrecord documentation. There are generally two drivers to access the cdrom through the parallel port: the ATAPI cd emulation (called pcd), and the SCSI device emulation (called pg). The pcd driver does NOT support cdda reading (kernel 2.2.12), while the pg driver has no restriction. So you have to use pg for that.

For cdrom drives with proprietary busses under Linux

1p. Please check the CDROM-HOWTO for features of the respective drivers. The sbpcd driver is very demanding due to the lack of interrupts.

optionally currently for Solaris and all platforms running 4fronts

OpenSoundSystems:

2. kernel sound card support.

Recommendations for higher throughput on Linux SCSI systems

=====

Higher throughput will give better chances for non-interrupted sampling. This should avoid typical interruption errors (cracklings at buffer boundaries).

1. Increase SG_BIG_BUFF to (128*1024) in /usr/src/linux/include/scsi/sg.h (and recompile your kernel and boot it :-).

NOTE: Some kernel configurations will lead to 'out of kernel memory' errors.

If you encounter this message regularly, better leave SG_BIG_BUFF at 32768.

1a. There is a patch for multiple sg device access under Linux. It uses up to 128 K buffer for each device. See here:

ftp://ftp.fokus.gmd.de/pub/unix/cdrecord/alpha/sg*

2. Ensure your harddisk has write cache enabled (For SCSI hard disks I switched it on with the scsiinfo program from tsx-11.mit.edu), but enable this only if it is correctly working ;-)

This has boosted the throughput of cdda2wav considerably.

Supported interfaces

=====

Non SCSI drives (Linux only):

ATAPI:

The greatest group nowadays are ATAPI (EIDE) cdrom drives.

Support is only limited by the drive. Kernel and cdda2wav are ready for them (unless the drive uses a very uncommon method).

Newer kernels can do an scsi emulation for ATAPI devices.

This interface is supported.

Parallel port interface:

There is a driver that maps the parallel port driver to an generic scsi like driver. Should work with newer kernels.

Proprietary interfaces:

Older drives with proprietary interfaces are supported only if the kernel driver allows reading cdda audio data via ioctl().

Currently only Eberhard Moenkeberg's sbpcd and Corey Minyard's cdu31a driver do allow this. The sbpcd driver of kernels earlier than 2.0.30 and 2.1.57 needs a patch before satisfying output can be obtained (see README.sbpcd).

SCSI drives:

For these drives the SCSI library from Joerg Schilling is used.

Thus we need kernel support (compiled-in or as a module) for it.

The generic SCSI interface allows multi sector transfers (max. 128 KB) which lowers cpu load considerably.

** NEW **

I added a script 'scsi_scan.linux' to find the generic devices for all SCSI CDROM- or WORM-type drives.

Configuration

=====

There are some adjustable parameters in the beginning of the Makefile (which is called local.cnf.in) . They describe default settings of cdda2wav:

INTERFACE: How the cdrom is accessed. Choose one method for INTERFACE.

DEVICE: The default cdrom device is set in DEF_DEVICE.

SOUND FILE FORMAT DEFAULTS:

The default format can be 'wav', 'sun pcm au', 'aiff', 'aifc', or

'raw bigendian samples'.

It is determined by the Makefile variable DEF_TYPE.

AUDIO FILENAME:

The default filename is given by DEF_FILE. Unless 'cdr' format is being used, this name is appended with '.wav', '.au', '.aiff' or '.aifc'.

RATE: the default rate is given by setting DEF_UNDERSAMPLING to the divisor for the audio cd sampling frequency (44100 Hz).

$$\text{RATE} = 44100 \text{ Hz} / \text{DEF_UNDERSAMPLING}$$

DEF_UNDERSAMPLING can be any multiple of a half greater than one half.

DYNAMIC: The default dynamic range of one sample in one channel is defined in DEF_BITS which can be one of 8, 12 or 16.

CHANNELS: set DEF_CHANNELS to 1 for mono and 2 for stereo.

RECORDING TIME: set DEF_TIME to the amount of seconds to record (or 0 for the whole track).

SOUND DEVICE: set SOUND_DEVICE to the device name of your sound card.

The line containing HAVESOUND should be uncommented also, if you want the option to hear what you record.

All of those values can be overridden by command line parameters.

Compiling cdda2wav

=====

Adjust the Makefile (named local.cnf.in) for your cdrom interface and device setting first.

Then type

make

and as root

make install

This will compile cdda2wav and copy the binary to /usr/local/bin and the man page to /usr/local/man/man1 (defaults).

Privileges

=====

You can setgid the binary, if you want to allow access to a CDROM's scsi_generic interface for cdda2wav but not for arbitrary programs. Giving away permissions to send SCSI commands directly to a device is not something you want to do lightly on a multi-user server system. The setgid privileges will only be used to access the scsi generic interface; for cooked_ioctl, the setgid privileges are not necessary and they are simply dropped.

Previous versions of cdda2wav had to be setuid to root. Such privileges are no longer necessary and will be dropped if present.

Select device

=====

By default cdda2wav uses the generic SCSI interface and a device triplet for SCSI bus, id, and lun.

This setting can be overridden by specifying '-Iinterface' and '-D cdromdevice'.

The following command line example uses the generic_scsi interface and the SCSI device with bus 1, id 2 and lun 3:

```
cdda2wav -Igeneric_scsi -D1,2,3
```

The shell script 'scan_scsi.linux' will report the generic devices for all SCSI cdrom drives.

If you need to use another interface, check the device setting also as they need to fit together.

Here is an example for an ATAPI cdrom using the cooked_ioctl interface and the cdrom device /dev/hdb:

```
cdda2wav -Icooked_ioctl -D/dev/hdb
```

Features

=====

I added an optional on-the-fly correction for pre-emphasized samples (available for original CDDA format only).

If the -T option is given, the samples will be filtered before they are written to disk. The samples then have a linear frequency response again.

When recording in mono, both channels are summed with halved amplitude.

Undersampling is done by summing several samples with reduced amplitude to prevent overflows. This damps higher frequencies as well. Compared to exact resampling cdda2wav does not use a very sophisticated (expensive) filter algorithm. It currently uses quadratic interpolation for noninteger subsampling factors.

Sampling can be aborted by pressing the Interrupt-Key (eg control-C) at anytime. Unless streaming to a pipe, the wav header will be updated to contain the actual length of the sample. The same will happen, if disk space becomes exhausted.

Fast options

=====

The options can also influence the performance greatly.

The fastest case is given when the samples don't need to be changed from their original form or analysed, that is the output format uses the same parameters as the drive: 16-bit samples, stereo at 44100 Hz sample rate AND with the same endianness (-Cbig and -Ebig, or -Clittle and -Elittle). To be sure all parameters can be given explicitly on the command line. This avoids an analysis of cdda2wav.

cdda2wav -P0 -q -S<maximum speed>

run as root will read with maximum speed and copy its output into the wav file, taking advantage of realtime scheduling as well.

For throughput testing the additional option -N can be used. Write operations will be suppressed then.

Options that slow down initially

=====

-v<level> needs some time for analysis before the actual sampling starts

Options that slow down during sampling

=====

-P1 causes overlap reading, the slowdown depends on the amount of jitter
-e synchronous output to a sound card slows down to onefold speed

Options that need more cpu power

=====

-p<rate> resamples the output send to the sound card
-M<count> calculates checksums
-T on-the-fly preemphasis filtering
-F checking for extremal samples
-G checking for differences in both channels
-C<endianness> if a conversion is required (see below)
-E<endianness> if a conversion is required (see below)
-Oaudiotype if a conversion is required (see below)
-c 1
-c s
-m
-b 8
-b 12
-a <not 1>

-r <not 44100>

When are one or two endianness (byte order) conversions required?

=====

There are three stages where the endianness matters:

- 1.) on the input side the cd drive can deliver in two flavors (called F1).
 When the flavor is unknown, cdda2wav needs to find out the endianness.
 A simple voting method is used. Successive samples are compared in both flavors and the flavor with the statistically smaller changes is taken.
 The flavor can be defined with the -C option, avoiding the analysis.
- 2.) For any calculation with samples (and echoing to the sound card), the samples are needed in the byte order of the machine (in this case I set 'need_host_order' to yes). The flavor of the machine endianness is called F2.
- 3.) Finally, there are two flavors of output sound formats (called F3):
 wav uses little endian samples
 cdr and au use big endian samples
 If the samples currently in memory have the wrong endianness a (possibly second) conversion is required.

This gives the following table:

F1 F2 need_host_order F3 conversions

| | | | | |
|--------|--------|-----|--------|---|
| little | little | no | little | 0 |
| little | little | yes | little | 0 |
| little | little | no | big | 1 |
| little | little | yes | big | 1 |
| little | big | no | little | 0 |
| little | big | yes | little | 2 |
| little | big | no | big | 1 |
| little | big | yes | big | 1 |
| big | little | no | little | 1 |
| big | little | yes | little | 1 |
| big | little | no | big | 0 |
| big | little | yes | big | 2 |
| big | big | no | little | 1 |
| big | big | yes | little | 1 |
| big | big | no | big | 0 |
| big | big | yes | big | 0 |

Known problems

=====

1. Sound quality

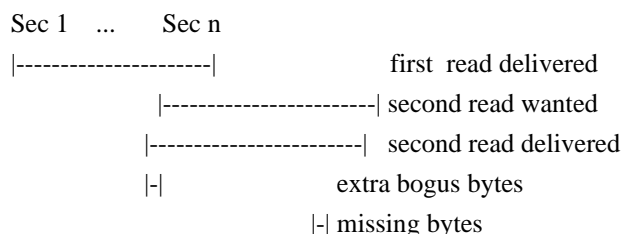
Audible errors caused by hesitations:

When recording the same audio track twice, recordings can slightly differ.

Furthermore depending on the firmware in the cdrom drive, positioning errors can be so severe that they cannot be easily corrected by cdda2wav. This will unfortunately lead to audible errors.

In this case some overlap or even underlap between successive portions is introduced from the cdrom drive.

Here is this case demonstrated graphically:



This is due to synchronisation problems between sectors inside the cdrom drive. When the drive has been forced to wait, these problems arise.

Audio cds are lacking sector headers, so it's a difficult job to do the positioning right (in the firmware). The frequency of these errors is reduced when the reading process can continue undisturbed for longer periods. So, a high throughput is essential.

You may want to fine-tune your update daemon to use shorter intervals (see 'man 8 update'). Shorter intervals are better because the update interruptions are shorter when not so much write requests can pile up.

The plextor 4plexplus drive (PX-4XCE) and newer models, newer pioneer models as well as CD-writers with large buffers don't suffer from this errors. Here the default is to switch off overlap reading.

If you cannot get good samples from your drives you might consider an alternative program. Monty's cdparanoia program goes to great lengths in order to separate the good bits from the bad ones.

2. The index scanner has caused timeouts on my toshiba 3401 due to fast random accesses.

3. Retrieval of media catalog numbers and International Standard Recording Codes may fail due to firmware bugs.

Audio Format Conversion

=====

Currently wav, sun (au-pcm), Apple/SGI aiff/aifc, and raw formats are supported.

I try to write correct wav files (little endian samples), but some cd-writers might swap them, which would result in sort of white noise instead of the original sounds. Cdda2wav has an endianness detector

for these cases, but as for all automatics, it might fail on bizarre samples.

Hint: Cdda2wav can be forced to use a given input endianness with the -C option (arguments are 'little', 'big' or 'guess').

The sun format is a pcm variant, and uses big endian samples. The other more common sun format with logarithmically scaled samples (au) is not supported but can be obtained from sox's conversion.

The raw format is like the sun format except it has no header. I changed the endianness to big endian samples in order to comply with popular cd burning software like the cdrecord program.

The sound converter 'sox' can be used to obtain other sound formats. (Note however, that the current sox player and a newer sound driver do not harmonize well, use the player from the wavplay package instead (available at sunsite)).

Feedback

=====

Tested patches, any hardware information regarding drives as well as success/failure reports are always welcome at heiko@colossus.escape.de.

known cdda capable drives

=====

Check out these web pages for uptodate information:

<<http://www.tardis.ed.ac.uk/~psyche/pc/cdrom/CDDA.html>>

and

<<http://www.anime.net/~goemon/linux-cd/cdda-list.html>>

From a news posting from Bjrn Wiberg

- > The following table was generated using the CDRUM.CFG file from Nero
- > v3.0.4.2.
- >
- > It shows different CD-ROM models and what speeds they can do DAE at. I
- > guess the values are "safe ones"; i.e. the speeds at which each drive
- > can perform DAE reliably.
- >
- > A value of "0x" means the drive doesn't support DAE.
- >
- > For your convenience, the maximum data transfer speed of the drives

> (for reading conventional files and data from the CD-ROM) are also
 > included.
 >
 > Hopefully, this will help some of you who are looking for a good
 > CD-ROM drive to choose a model which seems fast enough both for data
 > and DAE.

>
 > The models which support DAE:
 > (Sorted by DAE speed, data speed and model)

| CD-ROM model | DAE | Data | Interface |
|----------------------------|-----|------|-----------|
| ----- | | | |
| > PLEXTOR CD-ROM PX-32TS | 16x | 16x | SCSI |
| > TEAC CD-524E | 14x | 24x | IDE |
| > CREATIVE CD620E | 12x | 5x | IDE |
| > MITSUMI CD-ROM FX320S !B | 12x | 32x | IDE |
| > TEAC CD-532E | 12x | 32x | IDE |
| > HITACHI CDR-8335 | 12x | 24x | IDE |
| > PIONEER CD-ROM DR-A02S | 12x | 24x | IDE |
| > TEAC CD-ROM CD-532S | 12x | 14x | SCSI |
| > PIONEER CD-ROM DR-A12X | 12x | 12x | IDE |
| > PIONEER CD-ROM DR-U06S | 12x | 12x | SCSI |
| > PLEXTOR CD-ROM PX-20TS | 12x | 12x | SCSI |
| > MITSUMI CD-ROM FX120T !B | 11x | 12x | IDE |
| > PIONEER CD-ROM DR-A04S | 11x | 32x | IDE |
| > PIONEER CD-ROM DR-U12X | 10x | 12x | SCSI |
| > HITACHI CDR-8330 | 9x | 24x | IDE |
| > SONY CD-ROM CDU711 | 9x | 14x | IDE |
| > MATSHITA CD-ROM CR-584 | 9x | 12x | IDE |
| > MATSHITA CD-ROM CR-586 | 8x | 32x | IDE |
| > CDM-T531 Ver1.041 | 8x | 18x | IDE |
| > TEAC CD-516E | 8x | 16x | IDE |
| > TOSHIBA CD-ROM XM-6201TA | 8x | 16x | SCSI |
| > PLEXTOR CD-ROM PX-12CS | 8x | 12x | SCSI |
| > PLEXTOR CD-ROM PX-12TS | 8x | 12x | SCSI |
| > PIONEER CD-ROM DR-U10X | 8x | 10x | SCSI |
| > SONY CD-ROM CDU611 | 8x | 10x | IDE |
| > FUNAI E285X | 8x | 8x | IDE |
| > MITSUMI CD-ROM FX810T4!B | 8x | 8x | IDE |
| > SONY CD-ROM CDU511 | 8x | 8x | IDE |
| > SONY CD-ROM CDU571-Q | 8x | 8x | IDE |
| > TEAC CD-C68E | 8x | 8x | IDE |
| > MITSUMI CD-ROM FX400E !B | 8x | 4x | IDE |
| > HITACHI CDR-8130 | 7x | 16x | IDE |
| > MATSHITA CD-ROM CR-585 | 6x | 24x | IDE |
| > CREATIVE CD2422E MC102 | 6x | 12x | IDE |
| > MATSHITA CD-ROM CR-508 | 6x | 12x | SCSI |
| > IBM PD-1 LF-1195 | 6x | 6x | IDE |

| | | | |
|-----------------------------|----|-----|------|
| > PLEXTOR CD-ROM PX-6XCS | 6x | 6x | SCSI |
| > LITEON CD-ROM LTN301 | 5x | 32x | IDE |
| > LITEON CD-ROM LTN242F | 5x | 24x | IDE |
| > HITACHI CDR-7930 | 5x | 8x | IDE |
| > ASUS CD-S340 | 4x | 34x | IDE |
| > E-IDE CD-ROM 32X/AKU | 4x | 32x | IDE |
| > ATAPI CDROM | 4x | 24x | IDE |
| > LITEON CD-ROM LTN244 | 4x | 24x | IDE |
| > PHILIPS PCA248CD | 4x | 24x | IDE |
| > TEAC CD-524EA | 4x | 24x | IDE |
| > LITEON CD-ROM LTN202 | 4x | 21x | IDE |
| > ATAPI CD-ROM DRIVE-24X | 4x | 20x | IDE |
| > CREATIVE CD2423E NC101 | 4x | 20x | IDE |
| > SAMSUNG CD-ROM SCR-2431 | 4x | 20x | IDE |
| > TAE IL CD-ROM CDD-7240J | 4x | 20x | IDE |
| > TEAC CD-220E | 4x | 20x | IDE |
| > CREATIVE CD1620E SL970404 | 4x | 16x | IDE |
| > LITEON CD-ROM LTN262 | 4x | 16x | IDE |
| > TEAC CD-ROM CD-516S | 4x | 16x | SCSI |
| > ATAPI CD-ROM DRIVE | 4x | 15x | IDE |
| > BCD 16XA CD-ROM | 4x | 10x | IDE |
| > MATSHITA CD-ROM CR-506 | 4x | 8x | SCSI |
| > SONY CD-ROM CDU311 | 4x | 8x | IDE |
| > MATSHITA CD-ROM CR-504-J | 4x | 4x | SCSI |
| > MITSUBISH CDRW226 | 4x | 4x | SCSI |
| > SONY CD-ROM CDU625-S | 4x | 4x | SCSI |
| > SONY CD-ROM CDU-76S | 4x | 4x | SCSI |
| > SONY CD-ROM CDU77E | 4x | 4x | IDE |
| > PLEXTOR CD-ROM PX-4XCE | 4x | 4x | SCSI |
| > SONY CD-ROM CDU55E | 4x | 2x | IDE |
| > PIONEER CD-ROM DR-U24X | 3x | 24x | SCSI |
| > LITEON CD-ROM LTN204 | 3x | 21x | IDE |
| > PIONEER CD-ROM DR-A01S | 3x | 20x | IDE |
| > PIONEER CD-ROM DR-A24X | 3x | 20x | IDE |
| > FUNAI E295X | 3x | 16x | IDE |
| > PIONEER CD-ROM DR-U03S | 3x | 12x | SCSI |
| > BTC 24X CD-ROM SLL24 | 3x | 10x | IDE |
| > PLEXTOR CD-ROM PX-8XCS | 3x | 4x | SCSI |
| > CyberDrv CD-ROM TW240S | 3x | 3x | SCSI |
| > COMPAQ CRD-8320B | 2x | 32x | IDE |
| > LG CD-ROM CRD-8320B | 2x | 32x | IDE |
| > TOSHIBA CD-ROM XM-6202B | 2x | 32x | IDE |
| > CREATIVE DVD-ROM DVD2240E | 2x | 24x | IDE |
| > TOSHIBA CD-ROM XM-6102D | 2x | 24x | IDE |
| > BTC 16X CD-ROM SLL16 | 1x | 10x | IDE |
| > NEC CD-ROM DRIVE:282 | 2x | 8x | IDE |
| > HITACHI GD-2000 | 2x | 4x | IDE |
| > MATSHITA CD-ROM CR-581 | 2x | 4x | IDE |

> NEC CD-ROM DRIVE:222 2x 4x SCSI
 > MATSHITA CD-ROM CR-8004 2x 2x SCSI
 > GoldStar CD-ROM CRD-8240B 1x 24x IDE
 > TOSHIBA CD-ROM XM-6102B 1x 24x IDE
 > CyberDrv IDE CD-ROM 120D 1x 12x IDE
 > IDE CD-ROM TW120D 1x 12x IDE
 > NEC CD-ROM DRIVE:464 1x 12x SCSI
 > TORiSAN CD-ROM CDR_U112 1x 12x IDE
 > TOSHIBA CD-ROM XM-5701TA 1x 12x SCSI
 > TOSHIBA CD-ROM XM-5702B 1x 12x IDE
 > CyberDrv SCSI CD-ROM 120S 1x 10x IDE
 > NEC CD-ROM DRIVE:463 1x 10x SCSI
 > COMPAQ DVD-ROM SD-M1002 1x 8x IDE
 > MATSHITA CD-ROM CR-583 1x 8x IDE
 > NEC CD-ROM DRIVE:462 1x 8x SCSI
 > TEAC CD-58E 1x 8x IDE
 > OPTICS_S 8622 SCSI 1x 8x SCSI
 > TOSHIBA CD-ROM XM-5602B 1x 8x IDE
 > TOSHIBA CD-ROM XM-3801TA 1x 7x SCSI
 > NEC CD-ROM DRIVE:461 1x 6x SCSI
 > IBM CDRM00203 1x 6x SCSI
 > TEAC CD-46E 1x 6x IDE
 > TEAC CD-56E 1x 6x IDE
 > TEAC CD-ROM CD-56S 1x 6x SCSI
 > TOSHIBA CD-ROM XM-5502TA 1x 6x IDE
 > TOSHIBA CD-ROM XM-3701TA 1x 6x SCSI
 > NEC CD-ROM DRIVE:502 1x 4x SCSI
 > TOSHIBA CD-ROM XM-1502BN 1x 4x IDE
 > TOSHIBA CD-ROM XM-5302TA 1x 4x IDE
 > TOSHIBA CD-ROM XM-5401TA 1x 4x SCSI
 > TOSHIBA CD-ROM XM-5402TA 1x 4x IDE
 > TOSHIBA CD-ROM XM-1502B 1x 4x IDE
 > TOSHIBA CD-ROM XM-3501TA 1x 4x SCSI
 > TOSHIBA CD-ROM XM-5301TA 1x 4x SCSI
 > TOSHIBA CD-ROM XM-5201TA 1x 2x SCSI

known cdda incapable drives

=====

Pioneer DRM-602X, DRM-604X

Teac CD-55A (panasonic bus)

Philips CM206/10 serial RS-422

CM207

CM226/10 serial RS-422

CDD462/01 serial RS-422

Orchid CDS3110

Additions to the tables above are welcome.

and now catch your sounds,
Heiko heiko@colossus.escape.de

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/doc/cdda2wav/README

No license file was found, but licenses were detected in source scan.

```
#
# Name:      ISO 8859-5:1999 to Unicode
# Unicode version: 3.0
# Table version: 1.0
# Table format: Format A
# Date:      1999 July 27
# Authors:    Ken Whistler <kenw@sybase.com>
#
# Copyright (c) 1991-1999 Unicode, Inc. All Rights reserved.
#
# This file is provided as-is by Unicode, Inc. (The Unicode Consortium).
# No claims are made as to fitness for any particular purpose. No
# warranties of any kind are expressed or implied. The recipient
# agrees to determine applicability of information provided. If this
# file has been provided on optical media by Unicode, Inc., the sole
# remedy for any claim will be exchange of defective media within 90
# days of receipt.
#
# Unicode, Inc. hereby grants the right to freely use the information
# supplied in this file in the creation of products supporting the
# Unicode Standard, and to make copies of this file in any form for
# internal or external distribution as long as this notice remains
# attached.
#
# General notes:
#
# This table contains the data the Unicode Consortium has on how
#   ISO/IEC 8859-5:1999 characters map into Unicode.
#
# Format: Three tab-separated columns
# Column #1 is the ISO/IEC 8859-5 code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-5 order.
#
# Version history
# 1.0 version updates 0.1 version by adding mappings for all
# control characters.
```

```
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
```

0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W

0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
0x86 0x0086 # <control>
0x87 0x0087 # <control>

0x88 0x0088 # <control>
0x89 0x0089 # <control>
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0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
0x92 0x0092 # <control>
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0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0401 # CYRILLIC CAPITAL LETTER IO
0xA2 0x0402 # CYRILLIC CAPITAL LETTER DJE
0xA3 0x0403 # CYRILLIC CAPITAL LETTER GJE
0xA4 0x0404 # CYRILLIC CAPITAL LETTER UKRAINIAN IE
0xA5 0x0405 # CYRILLIC CAPITAL LETTER DZE
0xA6 0x0406 # CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
0xA7 0x0407 # CYRILLIC CAPITAL LETTER YI
0xA8 0x0408 # CYRILLIC CAPITAL LETTER JE
0xA9 0x0409 # CYRILLIC CAPITAL LETTER LJE
0xAA 0x040A # CYRILLIC CAPITAL LETTER NJE
0xAB 0x040B # CYRILLIC CAPITAL LETTER TSHE
0xAC 0x040C # CYRILLIC CAPITAL LETTER KJE
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x040E # CYRILLIC CAPITAL LETTER SHORT U
0xAF 0x040F # CYRILLIC CAPITAL LETTER DZHE
0xB0 0x0410 # CYRILLIC CAPITAL LETTER A
0xB1 0x0411 # CYRILLIC CAPITAL LETTER BE
0xB2 0x0412 # CYRILLIC CAPITAL LETTER VE
0xB3 0x0413 # CYRILLIC CAPITAL LETTER GHE
0xB4 0x0414 # CYRILLIC CAPITAL LETTER DE
0xB5 0x0415 # CYRILLIC CAPITAL LETTER IE
0xB6 0x0416 # CYRILLIC CAPITAL LETTER ZHE
0xB7 0x0417 # CYRILLIC CAPITAL LETTER ZE

0xB8 0x0418 # CYRILLIC CAPITAL LETTER I
0xB9 0x0419 # CYRILLIC CAPITAL LETTER SHORT I
0xBA 0x041A # CYRILLIC CAPITAL LETTER KA
0xBB 0x041B # CYRILLIC CAPITAL LETTER EL
0xBC 0x041C # CYRILLIC CAPITAL LETTER EM
0xBD 0x041D # CYRILLIC CAPITAL LETTER EN
0xBE 0x041E # CYRILLIC CAPITAL LETTER O
0xBF 0x041F # CYRILLIC CAPITAL LETTER PE
0xC0 0x0420 # CYRILLIC CAPITAL LETTER ER
0xC1 0x0421 # CYRILLIC CAPITAL LETTER ES
0xC2 0x0422 # CYRILLIC CAPITAL LETTER TE
0xC3 0x0423 # CYRILLIC CAPITAL LETTER U
0xC4 0x0424 # CYRILLIC CAPITAL LETTER EF
0xC5 0x0425 # CYRILLIC CAPITAL LETTER HA
0xC6 0x0426 # CYRILLIC CAPITAL LETTER TSE
0xC7 0x0427 # CYRILLIC CAPITAL LETTER CHE
0xC8 0x0428 # CYRILLIC CAPITAL LETTER SHA
0xC9 0x0429 # CYRILLIC CAPITAL LETTER SHCHA
0xCA 0x042A # CYRILLIC CAPITAL LETTER HARD SIGN
0xCB 0x042B # CYRILLIC CAPITAL LETTER YERU
0xCC 0x042C # CYRILLIC CAPITAL LETTER SOFT SIGN
0xCD 0x042D # CYRILLIC CAPITAL LETTER E
0xCE 0x042E # CYRILLIC CAPITAL LETTER YU
0xCF 0x042F # CYRILLIC CAPITAL LETTER YA
0xD0 0x0430 # CYRILLIC SMALL LETTER A
0xD1 0x0431 # CYRILLIC SMALL LETTER BE
0xD2 0x0432 # CYRILLIC SMALL LETTER VE
0xD3 0x0433 # CYRILLIC SMALL LETTER GHE
0xD4 0x0434 # CYRILLIC SMALL LETTER DE
0xD5 0x0435 # CYRILLIC SMALL LETTER IE
0xD6 0x0436 # CYRILLIC SMALL LETTER ZHE
0xD7 0x0437 # CYRILLIC SMALL LETTER ZE
0xD8 0x0438 # CYRILLIC SMALL LETTER I
0xD9 0x0439 # CYRILLIC SMALL LETTER SHORT I
0xDA 0x043A # CYRILLIC SMALL LETTER KA
0xDB 0x043B # CYRILLIC SMALL LETTER EL
0xDC 0x043C # CYRILLIC SMALL LETTER EM
0xDD 0x043D # CYRILLIC SMALL LETTER EN
0xDE 0x043E # CYRILLIC SMALL LETTER O
0xDF 0x043F # CYRILLIC SMALL LETTER PE
0xE0 0x0440 # CYRILLIC SMALL LETTER ER
0xE1 0x0441 # CYRILLIC SMALL LETTER ES
0xE2 0x0442 # CYRILLIC SMALL LETTER TE
0xE3 0x0443 # CYRILLIC SMALL LETTER U
0xE4 0x0444 # CYRILLIC SMALL LETTER EF
0xE5 0x0445 # CYRILLIC SMALL LETTER HA
0xE6 0x0446 # CYRILLIC SMALL LETTER TSE
0xE7 0x0447 # CYRILLIC SMALL LETTER CHE

0xE8 0x0448 # CYRILLIC SMALL LETTER SHA
0xE9 0x0449 # CYRILLIC SMALL LETTER SHCHA
0xEA 0x044A # CYRILLIC SMALL LETTER HARD SIGN
0xEB 0x044B # CYRILLIC SMALL LETTER YERU
0xEC 0x044C # CYRILLIC SMALL LETTER SOFT SIGN
0xED 0x044D # CYRILLIC SMALL LETTER E
0xEE 0x044E # CYRILLIC SMALL LETTER YU
0xEF 0x044F # CYRILLIC SMALL LETTER YA
0xF0 0x2116 # NUMERO SIGN
0xF1 0x0451 # CYRILLIC SMALL LETTER IO
0xF2 0x0452 # CYRILLIC SMALL LETTER DJE
0xF3 0x0453 # CYRILLIC SMALL LETTER GJE
0xF4 0x0454 # CYRILLIC SMALL LETTER UKRAINIAN IE
0xF5 0x0455 # CYRILLIC SMALL LETTER DZE
0xF6 0x0456 # CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
0xF7 0x0457 # CYRILLIC SMALL LETTER YI
0xF8 0x0458 # CYRILLIC SMALL LETTER JE
0xF9 0x0459 # CYRILLIC SMALL LETTER LJE
0xFA 0x045A # CYRILLIC SMALL LETTER NJE
0xFB 0x045B # CYRILLIC SMALL LETTER TSHE
0xFC 0x045C # CYRILLIC SMALL LETTER KJE
0xFD 0x00A7 # SECTION SIGN
0xFE 0x045E # CYRILLIC SMALL LETTER SHORT U
0xFF 0x045F # CYRILLIC SMALL LETTER DZHE

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-5

No license file was found, but licenses were detected in source scan.

Name: ISO 8859-2:1999 to Unicode
Unicode version: 3.0
Table version: 1.0
Table format: Format A
Date: 1999 July 27
Authors: Ken Whistler <kenw@sybase.com>

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#

General notes:

#

This table contains the data the Unicode Consortium has on how
ISO/IEC 8859-2:1999 characters map into Unicode.

#

Format: Three tab-separated columns

Column #1 is the ISO/IEC 8859-2 code (in hex as 0xXX)

Column #2 is the Unicode (in hex as 0XXXXX)

Column #3 the Unicode name (follows a comment sign, '#')

#

The entries are in ISO/IEC 8859-2 order.

#

Version history

1.0 version updates 0.1 version by adding mappings for all
control characters.

#

Updated versions of this file may be found in:

<<ftp://ftp.unicode.org/Public/MAPPINGS/>>

#

Any comments or problems, contact <errata@unicode.org>

Please note that <errata@unicode.org> is an archival address;

notices will be checked, but do not expect an immediate response.

#

0x00 0x0000 # NULL

0x01 0x0001 # START OF HEADING

0x02 0x0002 # START OF TEXT

0x03 0x0003 # END OF TEXT

0x04 0x0004 # END OF TRANSMISSION

0x05 0x0005 # ENQUIRY

0x06 0x0006 # ACKNOWLEDGE

0x07 0x0007 # BELL

0x08 0x0008 # BACKSPACE

0x09 0x0009 # HORIZONTAL TABULATION

0x0A 0x000A # LINE FEED

0x0B 0x000B # VERTICAL TABULATION

0x0C 0x000C # FORM FEED

0x0D 0x000D # CARRIAGE RETURN

0x0E 0x000E # SHIFT OUT

0x0F 0x000F # SHIFT IN

0x10 0x0010 # DATA LINK ESCAPE

0x11 0x0011 # DEVICE CONTROL ONE

0x12 0x0012 # DEVICE CONTROL TWO

0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B

0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R

0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
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0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
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0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0104 # LATIN CAPITAL LETTER A WITH OGONEK
0xA2 0x02D8 # BREVE

0xA3 0x0141 # LATIN CAPITAL LETTER L WITH STROKE
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x013D # LATIN CAPITAL LETTER L WITH CARON
0xA6 0x015A # LATIN CAPITAL LETTER S WITH ACUTE
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xAA 0x015E # LATIN CAPITAL LETTER S WITH CEDILLA
0xAB 0x0164 # LATIN CAPITAL LETTER T WITH CARON
0xAC 0x0179 # LATIN CAPITAL LETTER Z WITH ACUTE
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xAF 0x017B # LATIN CAPITAL LETTER Z WITH DOT ABOVE
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x0105 # LATIN SMALL LETTER A WITH OGONEK
0xB2 0x02DB # OGONEK
0xB3 0x0142 # LATIN SMALL LETTER L WITH STROKE
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x013E # LATIN SMALL LETTER L WITH CARON
0xB6 0x015B # LATIN SMALL LETTER S WITH ACUTE
0xB7 0x02C7 # CARON
0xB8 0x00B8 # CEDILLA
0xB9 0x0161 # LATIN SMALL LETTER S WITH CARON
0xBA 0x015F # LATIN SMALL LETTER S WITH CEDILLA
0xBB 0x0165 # LATIN SMALL LETTER T WITH CARON
0xBC 0x017A # LATIN SMALL LETTER Z WITH ACUTE
0xBD 0x02DD # DOUBLE ACUTE ACCENT
0xBE 0x017E # LATIN SMALL LETTER Z WITH CARON
0xBF 0x017C # LATIN SMALL LETTER Z WITH DOT ABOVE
0xC0 0x0154 # LATIN CAPITAL LETTER R WITH ACUTE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x0102 # LATIN CAPITAL LETTER A WITH BREVE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x0139 # LATIN CAPITAL LETTER L WITH ACUTE
0xC6 0x0106 # LATIN CAPITAL LETTER C WITH ACUTE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x010C # LATIN CAPITAL LETTER C WITH CARON
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x0118 # LATIN CAPITAL LETTER E WITH OGONEK
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x011A # LATIN CAPITAL LETTER E WITH CARON
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x010E # LATIN CAPITAL LETTER D WITH CARON
0xD0 0x0110 # LATIN CAPITAL LETTER D WITH STROKE
0xD1 0x0143 # LATIN CAPITAL LETTER N WITH ACUTE
0xD2 0x0147 # LATIN CAPITAL LETTER N WITH CARON

0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x0150 # LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x0158 # LATIN CAPITAL LETTER R WITH CARON
0xD9 0x016E # LATIN CAPITAL LETTER U WITH RING ABOVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x0170 # LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x00DD # LATIN CAPITAL LETTER Y WITH ACUTE
0xDE 0x0162 # LATIN CAPITAL LETTER T WITH CEDILLA
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x0155 # LATIN SMALL LETTER R WITH ACUTE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x0103 # LATIN SMALL LETTER A WITH BREVE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x013A # LATIN SMALL LETTER L WITH ACUTE
0xE6 0x0107 # LATIN SMALL LETTER C WITH ACUTE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA
0xE8 0x010D # LATIN SMALL LETTER C WITH CARON
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x0119 # LATIN SMALL LETTER E WITH OGONEK
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x011B # LATIN SMALL LETTER E WITH CARON
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x010F # LATIN SMALL LETTER D WITH CARON
0xF0 0x0111 # LATIN SMALL LETTER D WITH STROKE
0xF1 0x0144 # LATIN SMALL LETTER N WITH ACUTE
0xF2 0x0148 # LATIN SMALL LETTER N WITH CARON
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x0151 # LATIN SMALL LETTER O WITH DOUBLE ACUTE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x0159 # LATIN SMALL LETTER R WITH CARON
0xF9 0x016F # LATIN SMALL LETTER U WITH RING ABOVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x0171 # LATIN SMALL LETTER U WITH DOUBLE ACUTE
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x00FD # LATIN SMALL LETTER Y WITH ACUTE
0xFE 0x0163 # LATIN SMALL LETTER T WITH CEDILLA
0xFF 0x02D9 # DOT ABOVE

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* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-

xz/usr/lib/siconv/iso8859-2

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Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/man/man8/mkisofs-8-gz/mkisofs.8

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#

Name: ISO/IEC 8859-15:1999 to Unicode

Unicode version: 3.0

Table version: 1.0

Table format: Format A

Date: 1999 July 27

Authors: Markus Kuhn <<http://www.cl.cam.ac.uk/~mgk25/>>

Ken Whistler <kenw@sybase.com>

#

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#

General notes:

#

This table contains the data the Unicode Consortium has on how

ISO/IEC 8859-15:1999 characters map into Unicode.

#

Format: Three tab-separated columns

Column #1 is the ISO/IEC 8859-15 code (in hex as 0xXX)

Column #2 is the Unicode (in hex as 0XXXXX)

Column #3 the Unicode name (follows a comment sign, '#')

#

The entries are in ISO/IEC 8859-15 order.

#

Version history

```
#
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#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
```

0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W

0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
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0x8F 0x008F # <control>
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0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x00A1 # INVERTED EXCLAMATION MARK
0xA2 0x00A2 # CENT SIGN
0xA3 0x00A3 # POUND SIGN
0xA4 0x20AC # EURO SIGN
0xA5 0x00A5 # YEN SIGN
0xA6 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xA7 0x00A7 # SECTION SIGN
0xA8 0x0161 # LATIN SMALL LETTER S WITH CARON
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x00AA # FEMININE ORDINAL INDICATOR
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x00AF # MACRON
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIPIT TWO
0xB3 0x00B3 # SUPERSCRIPIT THREE
0xB4 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xB5 0x00B5 # MICRO SIGN
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT

0xB8 0x017E # LATIN SMALL LETTER Z WITH CARON
0xB9 0x00B9 # SUPERSCRIPIT ONE
0xBA 0x00BA # MASCULINE ORDINAL INDICATOR
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x0152 # LATIN CAPITAL LIGATURE OE
0xBD 0x0153 # LATIN SMALL LIGATURE OE
0xBE 0x0178 # LATIN CAPITAL LETTER Y WITH DIAERESIS
0xBF 0x00BF # INVERTED QUESTION MARK
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x00D0 # LATIN CAPITAL LETTER ETH
0xD1 0x00D1 # LATIN CAPITAL LETTER N WITH TILDE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x00DD # LATIN CAPITAL LETTER Y WITH ACUTE
0xDE 0x00DE # LATIN CAPITAL LETTER THORN
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA

0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x00F0 # LATIN SMALL LETTER ETH
0xF1 0x00F1 # LATIN SMALL LETTER N WITH TILDE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x00FD # LATIN SMALL LETTER Y WITH ACUTE
0xFE 0x00FE # LATIN SMALL LETTER THORN
0xFF 0x00FF # LATIN SMALL LETTER Y WITH DIAERESIS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-15

No license file was found, but licenses were detected in source scan.

Name: ISO/IEC 8859-13:1998 to Unicode
Unicode version: 3.0
Table version: 1.0
Table format: Format A
Date: 1999 July 27
Authors: Ken Whistler <kenw@sybase.com>

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#

General notes:

#

This table contains the data the Unicode Consortium has on how
ISO/IEC 8859-13:1998 characters map into Unicode.

#

Format: Three tab-separated columns

Column #1 is the ISO/IEC 8859-13 code (in hex as 0xXX)

Column #2 is the Unicode (in hex as 0xXXXX)

Column #3 the Unicode name (follows a comment sign, '#')

#

The entries are in ISO/IEC 8859-13 order.

#

Updated versions of this file may be found in:

<<ftp://ftp.unicode.org/Public/MAPPINGS/>>

#

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notices will be checked, but do not expect an immediate response.

#

0x00 0x0000 # NULL

0x01 0x0001 # START OF HEADING

0x02 0x0002 # START OF TEXT

0x03 0x0003 # END OF TEXT

0x04 0x0004 # END OF TRANSMISSION

0x05 0x0005 # ENQUIRY

0x06 0x0006 # ACKNOWLEDGE

0x07 0x0007 # BELL

0x08 0x0008 # BACKSPACE

0x09 0x0009 # HORIZONTAL TABULATION

0x0A 0x000A # LINE FEED

0x0B 0x000B # VERTICAL TABULATION

0x0C 0x000C # FORM FEED

0x0D 0x000D # CARRIAGE RETURN

0x0E 0x000E # SHIFT OUT

0x0F 0x000F # SHIFT IN

0x10 0x0010 # DATA LINK ESCAPE

0x11 0x0011 # DEVICE CONTROL ONE

0x12 0x0012 # DEVICE CONTROL TWO

0x13 0x0013 # DEVICE CONTROL THREE

0x14 0x0014 # DEVICE CONTROL FOUR

0x15 0x0015 # NEGATIVE ACKNOWLEDGE

0x16 0x0016 # SYNCHRONOUS IDLE

0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F

0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V

0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
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0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x201D # RIGHT DOUBLE QUOTATION MARK
0xA2 0x00A2 # CENT SIGN
0xA3 0x00A3 # POUND SIGN
0xA4 0x00A4 # CURRENCY SIGN
0xA5 0x201E # DOUBLE LOW-9 QUOTATION MARK
0xA6 0x00A6 # BROKEN BAR

0xA7 0x00A7 # SECTION SIGN
0xA8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x0156 # LATIN CAPITAL LETTER R WITH CEDILLA
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x00AC # NOT SIGN
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x00C6 # LATIN CAPITAL LETTER AE
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x00B2 # SUPERSCRIP TWO
0xB3 0x00B3 # SUPERSCRIP THREE
0xB4 0x201C # LEFT DOUBLE QUOTATION MARK
0xB5 0x00B5 # MICRO SIGN
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xB9 0x00B9 # SUPERSCRIP ONE
0xBA 0x0157 # LATIN SMALL LETTER R WITH CEDILLA
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x00BC # VULGAR FRACTION ONE QUARTER
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBE 0x00BE # VULGAR FRACTION THREE QUARTERS
0xBF 0x00E6 # LATIN SMALL LETTER AE
0xC0 0x0104 # LATIN CAPITAL LETTER A WITH OGONEK
0xC1 0x012E # LATIN CAPITAL LETTER I WITH OGONEK
0xC2 0x0100 # LATIN CAPITAL LETTER A WITH MACRON
0xC3 0x0106 # LATIN CAPITAL LETTER C WITH ACUTE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x0118 # LATIN CAPITAL LETTER E WITH OGONEK
0xC7 0x0112 # LATIN CAPITAL LETTER E WITH MACRON
0xC8 0x010C # LATIN CAPITAL LETTER C WITH CARON
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x0179 # LATIN CAPITAL LETTER Z WITH ACUTE
0xCB 0x0116 # LATIN CAPITAL LETTER E WITH DOT ABOVE
0xCC 0x0122 # LATIN CAPITAL LETTER G WITH CEDILLA
0xCD 0x0136 # LATIN CAPITAL LETTER K WITH CEDILLA
0xCE 0x012A # LATIN CAPITAL LETTER I WITH MACRON
0xCF 0x013B # LATIN CAPITAL LETTER L WITH CEDILLA
0xD0 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xD1 0x0143 # LATIN CAPITAL LETTER N WITH ACUTE
0xD2 0x0145 # LATIN CAPITAL LETTER N WITH CEDILLA
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x014C # LATIN CAPITAL LETTER O WITH MACRON
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS

0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x0172 # LATIN CAPITAL LETTER U WITH OGONEK
0xD9 0x0141 # LATIN CAPITAL LETTER L WITH STROKE
0xDA 0x015A # LATIN CAPITAL LETTER S WITH ACUTE
0xDB 0x016A # LATIN CAPITAL LETTER U WITH MACRON
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x017B # LATIN CAPITAL LETTER Z WITH DOT ABOVE
0xDE 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xDF 0x00DF # LATIN SMALL LETTER SHARP S (German)
0xE0 0x0105 # LATIN SMALL LETTER A WITH OGONEK
0xE1 0x012F # LATIN SMALL LETTER I WITH OGONEK
0xE2 0x0101 # LATIN SMALL LETTER A WITH MACRON
0xE3 0x0107 # LATIN SMALL LETTER C WITH ACUTE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x0119 # LATIN SMALL LETTER E WITH OGONEK
0xE7 0x0113 # LATIN SMALL LETTER E WITH MACRON
0xE8 0x010D # LATIN SMALL LETTER C WITH CARON
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x017A # LATIN SMALL LETTER Z WITH ACUTE
0xEB 0x0117 # LATIN SMALL LETTER E WITH DOT ABOVE
0xEC 0x0123 # LATIN SMALL LETTER G WITH CEDILLA
0xED 0x0137 # LATIN SMALL LETTER K WITH CEDILLA
0xEE 0x012B # LATIN SMALL LETTER I WITH MACRON
0xEF 0x013C # LATIN SMALL LETTER L WITH CEDILLA
0xF0 0x0161 # LATIN SMALL LETTER S WITH CARON
0xF1 0x0144 # LATIN SMALL LETTER N WITH ACUTE
0xF2 0x0146 # LATIN SMALL LETTER N WITH CEDILLA
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x014D # LATIN SMALL LETTER O WITH MACRON
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x0173 # LATIN SMALL LETTER U WITH OGONEK
0xF9 0x0142 # LATIN SMALL LETTER L WITH STROKE
0xFA 0x015B # LATIN SMALL LETTER S WITH ACUTE
0xFB 0x016B # LATIN SMALL LETTER U WITH MACRON
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x017C # LATIN SMALL LETTER Z WITH DOT ABOVE
0xFE 0x017E # LATIN SMALL LETTER Z WITH CARON
0xFF 0x2019 # RIGHT SINGLE QUOTATION MARK

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-13

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#

Name: ISO/IEC 8859-3:1999 to Unicode
Unicode version: 3.0
Table version: 1.0
Table format: Format A
Date: 1999 July 27
Authors: Ken Whistler <kenw@sybase.com>

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Column #2 is the Unicode (in hex as 0XXXXX)
Column #3 the Unicode name (follows a comment sign, '#')

The entries are in ISO/IEC 8859-3 order.

Version history
1.0 version updates 0.1 version by adding mappings for all
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Updated versions of this file may be found in:
<ftp://ftp.unicode.org/Public/MAPPINGS/>

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Please note that <errata@unicode.org> is an archival address;
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0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING

0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE

0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A

0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
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0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
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0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>

0x92 0x0092 # <control>
0x93 0x0093 # <control>
0x94 0x0094 # <control>
0x95 0x0095 # <control>
0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0126 # LATIN CAPITAL LETTER H WITH STROKE
0xA2 0x02D8 # BREVE
0xA3 0x00A3 # POUND SIGN
0xA4 0x00A4 # CURRENCY SIGN
0xA6 0x0124 # LATIN CAPITAL LETTER H WITH CIRCUMFLEX
0xA7 0x00A7 # SECTION SIGN
0xA8 0x00A8 # DIAERESIS
0xA9 0x0130 # LATIN CAPITAL LETTER I WITH DOT ABOVE
0xAA 0x015E # LATIN CAPITAL LETTER S WITH CEDILLA
0xAB 0x011E # LATIN CAPITAL LETTER G WITH BREVE
0xAC 0x0134 # LATIN CAPITAL LETTER J WITH CIRCUMFLEX
0xAD 0x00AD # SOFT HYPHEN
0xAF 0x017B # LATIN CAPITAL LETTER Z WITH DOT ABOVE
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x0127 # LATIN SMALL LETTER H WITH STROKE
0xB2 0x00B2 # SUPERSCRIP TWO
0xB3 0x00B3 # SUPERSCRIP THREE
0xB4 0x00B4 # ACUTE ACCENT
0xB5 0x00B5 # MICRO SIGN
0xB6 0x0125 # LATIN SMALL LETTER H WITH CIRCUMFLEX
0xB7 0x00B7 # MIDDLE DOT
0xB8 0x00B8 # CEDILLA
0xB9 0x0131 # LATIN SMALL LETTER DOTLESS I
0xBA 0x015F # LATIN SMALL LETTER S WITH CEDILLA
0xBB 0x011F # LATIN SMALL LETTER G WITH BREVE
0xBC 0x0135 # LATIN SMALL LETTER J WITH CIRCUMFLEX
0xBD 0x00BD # VULGAR FRACTION ONE HALF
0xBF 0x017C # LATIN SMALL LETTER Z WITH DOT ABOVE
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x010A # LATIN CAPITAL LETTER C WITH DOT ABOVE

0xC6 0x0108 # LATIN CAPITAL LETTER C WITH CIRCUMFLEX
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD1 0x00D1 # LATIN CAPITAL LETTER N WITH TILDE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x0120 # LATIN CAPITAL LETTER G WITH DOT ABOVE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x00D7 # MULTIPLICATION SIGN
0xD8 0x011C # LATIN CAPITAL LETTER G WITH CIRCUMFLEX
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x016C # LATIN CAPITAL LETTER U WITH BREVE
0xDE 0x015C # LATIN CAPITAL LETTER S WITH CIRCUMFLEX
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x010B # LATIN SMALL LETTER C WITH DOT ABOVE
0xE6 0x0109 # LATIN SMALL LETTER C WITH CIRCUMFLEX
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA
0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF1 0x00F1 # LATIN SMALL LETTER N WITH TILDE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x0121 # LATIN SMALL LETTER G WITH DOT ABOVE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x00F7 # DIVISION SIGN
0xF8 0x011D # LATIN SMALL LETTER G WITH CIRCUMFLEX

0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x016D # LATIN SMALL LETTER U WITH BREVE
0xFE 0x015D # LATIN SMALL LETTER S WITH CIRCUMFLEX
0xFF 0x02D9 # DOT ABOVE

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-3

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Name: ISO/IEC 8859-16:2001 to Unicode
Unicode version: 3.0
Table version: 1.0
Table format: Format A
Date: 2001 July 26
Authors: Markus Kuhn <<http://www.cl.cam.ac.uk/~mgk25/>>

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The entries are in ISO/IEC 8859-16 order.

```
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#
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# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
```

0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W

0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>
0x85 0x0085 # <control>
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0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
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0x95 0x0095 # <control>
0x96 0x0096 # <control>
0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x0104 # LATIN CAPITAL LETTER A WITH OGONEK
0xA2 0x0105 # LATIN SMALL LETTER A WITH OGONEK
0xA3 0x0141 # LATIN CAPITAL LETTER L WITH STROKE
0xA4 0x20AC # EURO SIGN
0xA5 0x201E # DOUBLE LOW-9 QUOTATION MARK
0xA6 0x0160 # LATIN CAPITAL LETTER S WITH CARON
0xA7 0x00A7 # SECTION SIGN
0xA8 0x0161 # LATIN SMALL LETTER S WITH CARON
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x0218 # LATIN CAPITAL LETTER S WITH COMMA BELOW
0xAB 0x00AB # LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
0xAC 0x0179 # LATIN CAPITAL LETTER Z WITH ACUTE
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x017A # LATIN SMALL LETTER Z WITH ACUTE
0xAF 0x017B # LATIN CAPITAL LETTER Z WITH DOT ABOVE
0xB0 0x00B0 # DEGREE SIGN
0xB1 0x00B1 # PLUS-MINUS SIGN
0xB2 0x010C # LATIN CAPITAL LETTER C WITH CARON
0xB3 0x0142 # LATIN SMALL LETTER L WITH STROKE
0xB4 0x017D # LATIN CAPITAL LETTER Z WITH CARON
0xB5 0x201D # RIGHT DOUBLE QUOTATION MARK
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x00B7 # MIDDLE DOT

0xB8 0x017E # LATIN SMALL LETTER Z WITH CARON
0xB9 0x010D # LATIN SMALL LETTER C WITH CARON
0xBA 0x0219 # LATIN SMALL LETTER S WITH COMMA BELOW
0xBB 0x00BB # RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
0xBC 0x0152 # LATIN CAPITAL LIGATURE OE
0xBD 0x0153 # LATIN SMALL LIGATURE OE
0xBE 0x0178 # LATIN CAPITAL LETTER Y WITH DIAERESIS
0xBF 0x017C # LATIN SMALL LETTER Z WITH DOT ABOVE
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x0102 # LATIN CAPITAL LETTER A WITH BREVE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x0106 # LATIN CAPITAL LETTER C WITH ACUTE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x0110 # LATIN CAPITAL LETTER D WITH STROKE
0xD1 0x0143 # LATIN CAPITAL LETTER N WITH ACUTE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x0150 # LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x015A # LATIN CAPITAL LETTER S WITH ACUTE
0xD8 0x0170 # LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x0118 # LATIN CAPITAL LETTER E WITH OGONEK
0xDE 0x021A # LATIN CAPITAL LETTER T WITH COMMA BELOW
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x0103 # LATIN SMALL LETTER A WITH BREVE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS
0xE5 0x0107 # LATIN SMALL LETTER C WITH ACUTE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA

0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x0111 # LATIN SMALL LETTER D WITH STROKE
0xF1 0x0144 # LATIN SMALL LETTER N WITH ACUTE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x0151 # LATIN SMALL LETTER O WITH DOUBLE ACUTE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x015B # LATIN SMALL LETTER S WITH ACUTE
0xF8 0x0171 # LATIN SMALL LETTER U WITH DOUBLE ACUTE
0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x0119 # LATIN SMALL LETTER E WITH OGONEK
0xFE 0x021B # LATIN SMALL LETTER T WITH COMMA BELOW
0xFF 0x00FF # LATIN SMALL LETTER Y WITH DIAERESIS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-16

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Name: KOI8-R (RFC1489) to Unicode
Unicode version: 3.0
Table version: 1.0
Table format: Format A
Date: 18 August 1999
Authors: Helmut Richter <richter@lrz.de>

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#
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# this mapping is the same as the mapping defined as "Code Page 878"
# with some vendors.
#
# Format: Three tab-separated columns
# Column #1 is the KOI8-R code (in hex as 0xXX)
# Column #2 is the Unicode (in hex as 0XXXXX)
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in KOI8-R order.
#
# Version history
# 1.0 version: created.
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
```


0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C

0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T
0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S

0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x2500 # BOX DRAWINGS LIGHT HORIZONTAL
0x81 0x2502 # BOX DRAWINGS LIGHT VERTICAL
0x82 0x250C # BOX DRAWINGS LIGHT DOWN AND RIGHT
0x83 0x2510 # BOX DRAWINGS LIGHT DOWN AND LEFT
0x84 0x2514 # BOX DRAWINGS LIGHT UP AND RIGHT
0x85 0x2518 # BOX DRAWINGS LIGHT UP AND LEFT
0x86 0x251C # BOX DRAWINGS LIGHT VERTICAL AND RIGHT
0x87 0x2524 # BOX DRAWINGS LIGHT VERTICAL AND LEFT
0x88 0x252C # BOX DRAWINGS LIGHT DOWN AND HORIZONTAL
0x89 0x2534 # BOX DRAWINGS LIGHT UP AND HORIZONTAL
0x8A 0x253C # BOX DRAWINGS LIGHT VERTICAL AND HORIZONTAL
0x8B 0x2580 # UPPER HALF BLOCK
0x8C 0x2584 # LOWER HALF BLOCK
0x8D 0x2588 # FULL BLOCK
0x8E 0x258C # LEFT HALF BLOCK
0x8F 0x2590 # RIGHT HALF BLOCK
0x90 0x2591 # LIGHT SHADE
0x91 0x2592 # MEDIUM SHADE
0x92 0x2593 # DARK SHADE
0x93 0x2320 # TOP HALF INTEGRAL
0x94 0x25A0 # BLACK SQUARE
0x95 0x2219 # BULLET OPERATOR
0x96 0x221A # SQUARE ROOT
0x97 0x2248 # ALMOST EQUAL TO
0x98 0x2264 # LESS-THAN OR EQUAL TO
0x99 0x2265 # GREATER-THAN OR EQUAL TO
0x9A 0x00A0 # NO-BREAK SPACE
0x9B 0x2321 # BOTTOM HALF INTEGRAL
0x9C 0x00B0 # DEGREE SIGN
0x9D 0x00B2 # SUPERSCRIP TWO
0x9E 0x00B7 # MIDDLE DOT
0x9F 0x00F7 # DIVISION SIGN
0xA0 0x2550 # BOX DRAWINGS DOUBLE HORIZONTAL
0xA1 0x2551 # BOX DRAWINGS DOUBLE VERTICAL
0xA2 0x2552 # BOX DRAWINGS DOWN SINGLE AND RIGHT DOUBLE
0xA3 0x0451 # CYRILLIC SMALL LETTER IO

0xA4 0x2553 # BOX DRAWINGS DOWN DOUBLE AND RIGHT SINGLE
0xA5 0x2554 # BOX DRAWINGS DOUBLE DOWN AND RIGHT
0xA6 0x2555 # BOX DRAWINGS DOWN SINGLE AND LEFT DOUBLE
0xA7 0x2556 # BOX DRAWINGS DOWN DOUBLE AND LEFT SINGLE
0xA8 0x2557 # BOX DRAWINGS DOUBLE DOWN AND LEFT
0xA9 0x2558 # BOX DRAWINGS UP SINGLE AND RIGHT DOUBLE
0xAA 0x2559 # BOX DRAWINGS UP DOUBLE AND RIGHT SINGLE
0xAB 0x255A # BOX DRAWINGS DOUBLE UP AND RIGHT
0xAC 0x255B # BOX DRAWINGS UP SINGLE AND LEFT DOUBLE
0xAD 0x255C # BOX DRAWINGS UP DOUBLE AND LEFT SINGLE
0xAE 0x255D # BOX DRAWINGS DOUBLE UP AND LEFT
0xAF 0x255E # BOX DRAWINGS VERTICAL SINGLE AND RIGHT DOUBLE
0xB0 0x255F # BOX DRAWINGS VERTICAL DOUBLE AND RIGHT SINGLE
0xB1 0x2560 # BOX DRAWINGS DOUBLE VERTICAL AND RIGHT
0xB2 0x2561 # BOX DRAWINGS VERTICAL SINGLE AND LEFT DOUBLE
0xB3 0x0401 # CYRILLIC CAPITAL LETTER IO
0xB4 0x2562 # BOX DRAWINGS VERTICAL DOUBLE AND LEFT SINGLE
0xB5 0x2563 # BOX DRAWINGS DOUBLE VERTICAL AND LEFT
0xB6 0x2564 # BOX DRAWINGS DOWN SINGLE AND HORIZONTAL DOUBLE
0xB7 0x2565 # BOX DRAWINGS DOWN DOUBLE AND HORIZONTAL SINGLE
0xB8 0x2566 # BOX DRAWINGS DOUBLE DOWN AND HORIZONTAL
0xB9 0x2567 # BOX DRAWINGS UP SINGLE AND HORIZONTAL DOUBLE
0xBA 0x2568 # BOX DRAWINGS UP DOUBLE AND HORIZONTAL SINGLE
0xBB 0x2569 # BOX DRAWINGS DOUBLE UP AND HORIZONTAL
0xBC 0x256A # BOX DRAWINGS VERTICAL SINGLE AND HORIZONTAL DOUBLE
0xBD 0x256B # BOX DRAWINGS VERTICAL DOUBLE AND HORIZONTAL SINGLE
0xBE 0x256C # BOX DRAWINGS DOUBLE VERTICAL AND HORIZONTAL
0xBF 0x00A9 # COPYRIGHT SIGN
0xC0 0x044E # CYRILLIC SMALL LETTER YU
0xC1 0x0430 # CYRILLIC SMALL LETTER A
0xC2 0x0431 # CYRILLIC SMALL LETTER BE
0xC3 0x0446 # CYRILLIC SMALL LETTER TSE
0xC4 0x0434 # CYRILLIC SMALL LETTER DE
0xC5 0x0435 # CYRILLIC SMALL LETTER IE
0xC6 0x0444 # CYRILLIC SMALL LETTER EF
0xC7 0x0433 # CYRILLIC SMALL LETTER GHE
0xC8 0x0445 # CYRILLIC SMALL LETTER HA
0xC9 0x0438 # CYRILLIC SMALL LETTER I
0xCA 0x0439 # CYRILLIC SMALL LETTER SHORT I
0xCB 0x043A # CYRILLIC SMALL LETTER KA
0xCC 0x043B # CYRILLIC SMALL LETTER EL
0xCD 0x043C # CYRILLIC SMALL LETTER EM
0xCE 0x043D # CYRILLIC SMALL LETTER EN
0xCF 0x043E # CYRILLIC SMALL LETTER O
0xD0 0x043F # CYRILLIC SMALL LETTER PE
0xD1 0x044F # CYRILLIC SMALL LETTER YA
0xD2 0x0440 # CYRILLIC SMALL LETTER ER
0xD3 0x0441 # CYRILLIC SMALL LETTER ES

0xD4 0x0442 # CYRILLIC SMALL LETTER TE
0xD5 0x0443 # CYRILLIC SMALL LETTER U
0xD6 0x0436 # CYRILLIC SMALL LETTER ZHE
0xD7 0x0432 # CYRILLIC SMALL LETTER VE
0xD8 0x044C # CYRILLIC SMALL LETTER SOFT SIGN
0xD9 0x044B # CYRILLIC SMALL LETTER YERU
0xDA 0x0437 # CYRILLIC SMALL LETTER ZE
0xDB 0x0448 # CYRILLIC SMALL LETTER SHA
0xDC 0x044D # CYRILLIC SMALL LETTER E
0xDD 0x0449 # CYRILLIC SMALL LETTER SHCHA
0xDE 0x0447 # CYRILLIC SMALL LETTER CHE
0xDF 0x044A # CYRILLIC SMALL LETTER HARD SIGN
0xE0 0x042E # CYRILLIC CAPITAL LETTER YU
0xE1 0x0410 # CYRILLIC CAPITAL LETTER A
0xE2 0x0411 # CYRILLIC CAPITAL LETTER BE
0xE3 0x0426 # CYRILLIC CAPITAL LETTER TSE
0xE4 0x0414 # CYRILLIC CAPITAL LETTER DE
0xE5 0x0415 # CYRILLIC CAPITAL LETTER IE
0xE6 0x0424 # CYRILLIC CAPITAL LETTER EF
0xE7 0x0413 # CYRILLIC CAPITAL LETTER GHE
0xE8 0x0425 # CYRILLIC CAPITAL LETTER HA
0xE9 0x0418 # CYRILLIC CAPITAL LETTER I
0xEA 0x0419 # CYRILLIC CAPITAL LETTER SHORT I
0xEB 0x041A # CYRILLIC CAPITAL LETTER KA
0xEC 0x041B # CYRILLIC CAPITAL LETTER EL
0xED 0x041C # CYRILLIC CAPITAL LETTER EM
0xEE 0x041D # CYRILLIC CAPITAL LETTER EN
0xEF 0x041E # CYRILLIC CAPITAL LETTER O
0xF0 0x041F # CYRILLIC CAPITAL LETTER PE
0xF1 0x042F # CYRILLIC CAPITAL LETTER YA
0xF2 0x0420 # CYRILLIC CAPITAL LETTER ER
0xF3 0x0421 # CYRILLIC CAPITAL LETTER ES
0xF4 0x0422 # CYRILLIC CAPITAL LETTER TE
0xF5 0x0423 # CYRILLIC CAPITAL LETTER U
0xF6 0x0416 # CYRILLIC CAPITAL LETTER ZHE
0xF7 0x0412 # CYRILLIC CAPITAL LETTER VE
0xF8 0x042C # CYRILLIC CAPITAL LETTER SOFT SIGN
0xF9 0x042B # CYRILLIC CAPITAL LETTER YERU
0xFA 0x0417 # CYRILLIC CAPITAL LETTER ZE
0xFB 0x0428 # CYRILLIC CAPITAL LETTER SHA
0xFC 0x042D # CYRILLIC CAPITAL LETTER E
0xFD 0x0429 # CYRILLIC CAPITAL LETTER SHCHA
0xFE 0x0427 # CYRILLIC CAPITAL LETTER CHE
0xFF 0x042A # CYRILLIC CAPITAL LETTER HARD SIGN

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/koi8-r

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* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/man/man1/scgcheck-1-gz/scgcheck.1

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/man/man1/cdda2ogg-1-gz/cdda2ogg.1

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/share/man/man1/readcd-1-gz/readcd.1

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```
#
# Name:          ISO/IEC 8859-14:1998 to Unicode
# Unicode version: 3.0
# Table version: 1.0
# Table format:  Format A
# Date:         1999 July 27
# Authors:      Markus Kuhn <http://www.cl.cam.ac.uk/~mgk25/>
#   Ken Whistler <kenw@sybase.com>
#
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#
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#   ISO/IEC 8859-14:1998 characters map into Unicode.
#
# Format: Three tab-separated columns
#   Column #1 is the ISO/IEC 8859-14 code (in hex as 0xXX)
#   Column #2 is the Unicode (in hex as 0xFFFF)
```

```
# Column #3 the Unicode name (follows a comment sign, '#')
#
# The entries are in ISO/IEC 8859-14 order.
#
# Updated versions of this file may be found in:
# <ftp://ftp.unicode.org/Public/MAPPINGS/>
#
# Any comments or problems, contact <errata@unicode.org>
# Please note that <errata@unicode.org> is an archival address;
# notices will be checked, but do not expect an immediate response.
#
0x00 0x0000 # NULL
0x01 0x0001 # START OF HEADING
0x02 0x0002 # START OF TEXT
0x03 0x0003 # END OF TEXT
0x04 0x0004 # END OF TRANSMISSION
0x05 0x0005 # ENQUIRY
0x06 0x0006 # ACKNOWLEDGE
0x07 0x0007 # BELL
0x08 0x0008 # BACKSPACE
0x09 0x0009 # HORIZONTAL TABULATION
0x0A 0x000A # LINE FEED
0x0B 0x000B # VERTICAL TABULATION
0x0C 0x000C # FORM FEED
0x0D 0x000D # CARRIAGE RETURN
0x0E 0x000E # SHIFT OUT
0x0F 0x000F # SHIFT IN
0x10 0x0010 # DATA LINK ESCAPE
0x11 0x0011 # DEVICE CONTROL ONE
0x12 0x0012 # DEVICE CONTROL TWO
0x13 0x0013 # DEVICE CONTROL THREE
0x14 0x0014 # DEVICE CONTROL FOUR
0x15 0x0015 # NEGATIVE ACKNOWLEDGE
0x16 0x0016 # SYNCHRONOUS IDLE
0x17 0x0017 # END OF TRANSMISSION BLOCK
0x18 0x0018 # CANCEL
0x19 0x0019 # END OF MEDIUM
0x1A 0x001A # SUBSTITUTE
0x1B 0x001B # ESCAPE
0x1C 0x001C # FILE SEPARATOR
0x1D 0x001D # GROUP SEPARATOR
0x1E 0x001E # RECORD SEPARATOR
0x1F 0x001F # UNIT SEPARATOR
0x20 0x0020 # SPACE
0x21 0x0021 # EXCLAMATION MARK
0x22 0x0022 # QUOTATION MARK
0x23 0x0023 # NUMBER SIGN
0x24 0x0024 # DOLLAR SIGN
```

0x25 0x0025 # PERCENT SIGN
0x26 0x0026 # AMPERSAND
0x27 0x0027 # APOSTROPHE
0x28 0x0028 # LEFT PARENTHESIS
0x29 0x0029 # RIGHT PARENTHESIS
0x2A 0x002A # ASTERISK
0x2B 0x002B # PLUS SIGN
0x2C 0x002C # COMMA
0x2D 0x002D # HYPHEN-MINUS
0x2E 0x002E # FULL STOP
0x2F 0x002F # SOLIDUS
0x30 0x0030 # DIGIT ZERO
0x31 0x0031 # DIGIT ONE
0x32 0x0032 # DIGIT TWO
0x33 0x0033 # DIGIT THREE
0x34 0x0034 # DIGIT FOUR
0x35 0x0035 # DIGIT FIVE
0x36 0x0036 # DIGIT SIX
0x37 0x0037 # DIGIT SEVEN
0x38 0x0038 # DIGIT EIGHT
0x39 0x0039 # DIGIT NINE
0x3A 0x003A # COLON
0x3B 0x003B # SEMICOLON
0x3C 0x003C # LESS-THAN SIGN
0x3D 0x003D # EQUALS SIGN
0x3E 0x003E # GREATER-THAN SIGN
0x3F 0x003F # QUESTION MARK
0x40 0x0040 # COMMERCIAL AT
0x41 0x0041 # LATIN CAPITAL LETTER A
0x42 0x0042 # LATIN CAPITAL LETTER B
0x43 0x0043 # LATIN CAPITAL LETTER C
0x44 0x0044 # LATIN CAPITAL LETTER D
0x45 0x0045 # LATIN CAPITAL LETTER E
0x46 0x0046 # LATIN CAPITAL LETTER F
0x47 0x0047 # LATIN CAPITAL LETTER G
0x48 0x0048 # LATIN CAPITAL LETTER H
0x49 0x0049 # LATIN CAPITAL LETTER I
0x4A 0x004A # LATIN CAPITAL LETTER J
0x4B 0x004B # LATIN CAPITAL LETTER K
0x4C 0x004C # LATIN CAPITAL LETTER L
0x4D 0x004D # LATIN CAPITAL LETTER M
0x4E 0x004E # LATIN CAPITAL LETTER N
0x4F 0x004F # LATIN CAPITAL LETTER O
0x50 0x0050 # LATIN CAPITAL LETTER P
0x51 0x0051 # LATIN CAPITAL LETTER Q
0x52 0x0052 # LATIN CAPITAL LETTER R
0x53 0x0053 # LATIN CAPITAL LETTER S
0x54 0x0054 # LATIN CAPITAL LETTER T

0x55 0x0055 # LATIN CAPITAL LETTER U
0x56 0x0056 # LATIN CAPITAL LETTER V
0x57 0x0057 # LATIN CAPITAL LETTER W
0x58 0x0058 # LATIN CAPITAL LETTER X
0x59 0x0059 # LATIN CAPITAL LETTER Y
0x5A 0x005A # LATIN CAPITAL LETTER Z
0x5B 0x005B # LEFT SQUARE BRACKET
0x5C 0x005C # REVERSE SOLIDUS
0x5D 0x005D # RIGHT SQUARE BRACKET
0x5E 0x005E # CIRCUMFLEX ACCENT
0x5F 0x005F # LOW LINE
0x60 0x0060 # GRAVE ACCENT
0x61 0x0061 # LATIN SMALL LETTER A
0x62 0x0062 # LATIN SMALL LETTER B
0x63 0x0063 # LATIN SMALL LETTER C
0x64 0x0064 # LATIN SMALL LETTER D
0x65 0x0065 # LATIN SMALL LETTER E
0x66 0x0066 # LATIN SMALL LETTER F
0x67 0x0067 # LATIN SMALL LETTER G
0x68 0x0068 # LATIN SMALL LETTER H
0x69 0x0069 # LATIN SMALL LETTER I
0x6A 0x006A # LATIN SMALL LETTER J
0x6B 0x006B # LATIN SMALL LETTER K
0x6C 0x006C # LATIN SMALL LETTER L
0x6D 0x006D # LATIN SMALL LETTER M
0x6E 0x006E # LATIN SMALL LETTER N
0x6F 0x006F # LATIN SMALL LETTER O
0x70 0x0070 # LATIN SMALL LETTER P
0x71 0x0071 # LATIN SMALL LETTER Q
0x72 0x0072 # LATIN SMALL LETTER R
0x73 0x0073 # LATIN SMALL LETTER S
0x74 0x0074 # LATIN SMALL LETTER T
0x75 0x0075 # LATIN SMALL LETTER U
0x76 0x0076 # LATIN SMALL LETTER V
0x77 0x0077 # LATIN SMALL LETTER W
0x78 0x0078 # LATIN SMALL LETTER X
0x79 0x0079 # LATIN SMALL LETTER Y
0x7A 0x007A # LATIN SMALL LETTER Z
0x7B 0x007B # LEFT CURLY BRACKET
0x7C 0x007C # VERTICAL LINE
0x7D 0x007D # RIGHT CURLY BRACKET
0x7E 0x007E # TILDE
0x7F 0x007F # DELETE
0x80 0x0080 # <control>
0x81 0x0081 # <control>
0x82 0x0082 # <control>
0x83 0x0083 # <control>
0x84 0x0084 # <control>

0x85 0x0085 # <control>
0x86 0x0086 # <control>
0x87 0x0087 # <control>
0x88 0x0088 # <control>
0x89 0x0089 # <control>
0x8A 0x008A # <control>
0x8B 0x008B # <control>
0x8C 0x008C # <control>
0x8D 0x008D # <control>
0x8E 0x008E # <control>
0x8F 0x008F # <control>
0x90 0x0090 # <control>
0x91 0x0091 # <control>
0x92 0x0092 # <control>
0x93 0x0093 # <control>
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0x97 0x0097 # <control>
0x98 0x0098 # <control>
0x99 0x0099 # <control>
0x9A 0x009A # <control>
0x9B 0x009B # <control>
0x9C 0x009C # <control>
0x9D 0x009D # <control>
0x9E 0x009E # <control>
0x9F 0x009F # <control>
0xA0 0x00A0 # NO-BREAK SPACE
0xA1 0x1E02 # LATIN CAPITAL LETTER B WITH DOT ABOVE
0xA2 0x1E03 # LATIN SMALL LETTER B WITH DOT ABOVE
0xA3 0x00A3 # POUND SIGN
0xA4 0x010A # LATIN CAPITAL LETTER C WITH DOT ABOVE
0xA5 0x010B # LATIN SMALL LETTER C WITH DOT ABOVE
0xA6 0x1E0A # LATIN CAPITAL LETTER D WITH DOT ABOVE
0xA7 0x00A7 # SECTION SIGN
0xA8 0x1E80 # LATIN CAPITAL LETTER W WITH GRAVE
0xA9 0x00A9 # COPYRIGHT SIGN
0xAA 0x1E82 # LATIN CAPITAL LETTER W WITH ACUTE
0xAB 0x1E0B # LATIN SMALL LETTER D WITH DOT ABOVE
0xAC 0x1EF2 # LATIN CAPITAL LETTER Y WITH GRAVE
0xAD 0x00AD # SOFT HYPHEN
0xAE 0x00AE # REGISTERED SIGN
0xAF 0x0178 # LATIN CAPITAL LETTER Y WITH DIAERESIS
0xB0 0x1E1E # LATIN CAPITAL LETTER F WITH DOT ABOVE
0xB1 0x1E1F # LATIN SMALL LETTER F WITH DOT ABOVE
0xB2 0x0120 # LATIN CAPITAL LETTER G WITH DOT ABOVE
0xB3 0x0121 # LATIN SMALL LETTER G WITH DOT ABOVE
0xB4 0x1E40 # LATIN CAPITAL LETTER M WITH DOT ABOVE

0xB5 0x1E41 # LATIN SMALL LETTER M WITH DOT ABOVE
0xB6 0x00B6 # PILCROW SIGN
0xB7 0x1E56 # LATIN CAPITAL LETTER P WITH DOT ABOVE
0xB8 0x1E81 # LATIN SMALL LETTER W WITH GRAVE
0xB9 0x1E57 # LATIN SMALL LETTER P WITH DOT ABOVE
0xBA 0x1E83 # LATIN SMALL LETTER W WITH ACUTE
0xBB 0x1E60 # LATIN CAPITAL LETTER S WITH DOT ABOVE
0xBC 0x1EF3 # LATIN SMALL LETTER Y WITH GRAVE
0xBD 0x1E84 # LATIN CAPITAL LETTER W WITH DIAERESIS
0xBE 0x1E85 # LATIN SMALL LETTER W WITH DIAERESIS
0xBF 0x1E61 # LATIN SMALL LETTER S WITH DOT ABOVE
0xC0 0x00C0 # LATIN CAPITAL LETTER A WITH GRAVE
0xC1 0x00C1 # LATIN CAPITAL LETTER A WITH ACUTE
0xC2 0x00C2 # LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xC3 0x00C3 # LATIN CAPITAL LETTER A WITH TILDE
0xC4 0x00C4 # LATIN CAPITAL LETTER A WITH DIAERESIS
0xC5 0x00C5 # LATIN CAPITAL LETTER A WITH RING ABOVE
0xC6 0x00C6 # LATIN CAPITAL LETTER AE
0xC7 0x00C7 # LATIN CAPITAL LETTER C WITH CEDILLA
0xC8 0x00C8 # LATIN CAPITAL LETTER E WITH GRAVE
0xC9 0x00C9 # LATIN CAPITAL LETTER E WITH ACUTE
0xCA 0x00CA # LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xCB 0x00CB # LATIN CAPITAL LETTER E WITH DIAERESIS
0xCC 0x00CC # LATIN CAPITAL LETTER I WITH GRAVE
0xCD 0x00CD # LATIN CAPITAL LETTER I WITH ACUTE
0xCE 0x00CE # LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xCF 0x00CF # LATIN CAPITAL LETTER I WITH DIAERESIS
0xD0 0x0174 # LATIN CAPITAL LETTER W WITH CIRCUMFLEX
0xD1 0x00D1 # LATIN CAPITAL LETTER N WITH TILDE
0xD2 0x00D2 # LATIN CAPITAL LETTER O WITH GRAVE
0xD3 0x00D3 # LATIN CAPITAL LETTER O WITH ACUTE
0xD4 0x00D4 # LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD5 0x00D5 # LATIN CAPITAL LETTER O WITH TILDE
0xD6 0x00D6 # LATIN CAPITAL LETTER O WITH DIAERESIS
0xD7 0x1E6A # LATIN CAPITAL LETTER T WITH DOT ABOVE
0xD8 0x00D8 # LATIN CAPITAL LETTER O WITH STROKE
0xD9 0x00D9 # LATIN CAPITAL LETTER U WITH GRAVE
0xDA 0x00DA # LATIN CAPITAL LETTER U WITH ACUTE
0xDB 0x00DB # LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xDC 0x00DC # LATIN CAPITAL LETTER U WITH DIAERESIS
0xDD 0x00DD # LATIN CAPITAL LETTER Y WITH ACUTE
0xDE 0x0176 # LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
0xDF 0x00DF # LATIN SMALL LETTER SHARP S
0xE0 0x00E0 # LATIN SMALL LETTER A WITH GRAVE
0xE1 0x00E1 # LATIN SMALL LETTER A WITH ACUTE
0xE2 0x00E2 # LATIN SMALL LETTER A WITH CIRCUMFLEX
0xE3 0x00E3 # LATIN SMALL LETTER A WITH TILDE
0xE4 0x00E4 # LATIN SMALL LETTER A WITH DIAERESIS

0xE5 0x00E5 # LATIN SMALL LETTER A WITH RING ABOVE
0xE6 0x00E6 # LATIN SMALL LETTER AE
0xE7 0x00E7 # LATIN SMALL LETTER C WITH CEDILLA
0xE8 0x00E8 # LATIN SMALL LETTER E WITH GRAVE
0xE9 0x00E9 # LATIN SMALL LETTER E WITH ACUTE
0xEA 0x00EA # LATIN SMALL LETTER E WITH CIRCUMFLEX
0xEB 0x00EB # LATIN SMALL LETTER E WITH DIAERESIS
0xEC 0x00EC # LATIN SMALL LETTER I WITH GRAVE
0xED 0x00ED # LATIN SMALL LETTER I WITH ACUTE
0xEE 0x00EE # LATIN SMALL LETTER I WITH CIRCUMFLEX
0xEF 0x00EF # LATIN SMALL LETTER I WITH DIAERESIS
0xF0 0x0175 # LATIN SMALL LETTER W WITH CIRCUMFLEX
0xF1 0x00F1 # LATIN SMALL LETTER N WITH TILDE
0xF2 0x00F2 # LATIN SMALL LETTER O WITH GRAVE
0xF3 0x00F3 # LATIN SMALL LETTER O WITH ACUTE
0xF4 0x00F4 # LATIN SMALL LETTER O WITH CIRCUMFLEX
0xF5 0x00F5 # LATIN SMALL LETTER O WITH TILDE
0xF6 0x00F6 # LATIN SMALL LETTER O WITH DIAERESIS
0xF7 0x1E6B # LATIN SMALL LETTER T WITH DOT ABOVE
0xF8 0x00F8 # LATIN SMALL LETTER O WITH STROKE
0xF9 0x00F9 # LATIN SMALL LETTER U WITH GRAVE
0xFA 0x00FA # LATIN SMALL LETTER U WITH ACUTE
0xFB 0x00FB # LATIN SMALL LETTER U WITH CIRCUMFLEX
0xFC 0x00FC # LATIN SMALL LETTER U WITH DIAERESIS
0xFD 0x00FD # LATIN SMALL LETTER Y WITH ACUTE
0xFE 0x0177 # LATIN SMALL LETTER Y WITH CIRCUMFLEX
0xFF 0x00FF # LATIN SMALL LETTER Y WITH DIAERESIS

Found in path(s):

* /opt/cola/permits/1664137283_1683891403.0559657/0/cdrtools-3-02a09-1-x86-64-pkg-tar-xz/usr/lib/siconv/iso8859-14

1.205 kbd 2.5.1

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1.206 gsm 1.0.18 1

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```
/* -*- Mode: Text -*- */
```

```
copyright = {  
  date = "1992-2017";  
  owner = "The University of Delaware and Network Time Foundation";  
  eaddr = "http://bugs.ntp.org, bugs@ntp.org";  
  type = ntp;  
};
```

```
long-opts;  
config-header = config.h;  
environrc;  
no-misuse-usage;  
version-proc = ntpOptionPrintVersion;
```

```
version      = `  
eval VERSION=\`sed -e 's/.*,\\[/' -e 's/\\].*//' < ../sntp/m4/version.m4\  
[ -z "${VERSION}" ] && echo "Cannot determine VERSION" && kill -TERM $AG_pid  
echo $VERSION`;
```

```
version-value = "; /* Don't use -v as a shortcut for --version */
```

```
/*  
* HMS: man pages already have this, and texi pages can use the  
* values in sntp/include/version.texi .  
*/
```

```
// doc-sub = {  
//   sub-name = version;  
//   sub-text = 's/#VERSION#/<<version>>/g';  
// };
```

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```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
```

```
<html>
```

```
<head>
```

```
<meta http-equiv="content-type" content="text/html; charset=iso-8859-1">
```

```
<title>Copyright Notice</title>
```

```
<!-- Changed by: Harlan Stenn, 10-Mar-2014 -->
```

```
<link href="scripts/style.css" type="text/css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
<h3>Copyright Notice</h3>
```

```
 "Clone me," says Dolly sheepishly.
```

```
<p>Last update:
```

```
<!-- #BeginDate format:En2m -->2-Jan-2017 11:58<!-- #EndDate -->
```

```
UTC</p>
```

```
<br clear="left">
```

```
</p>
```

```
<hr>
```

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```

```
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```

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```

```

*
*
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```

```

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<p>The following individuals contributed in part to the Network Time Protocol Distribution Version 4 and are
acknowledged as authors of this work.</p>
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<li><a href="mailto:%20takao_abe@xurb.jp">Takao Abe &lt;takao_abe@xurb.jp&gt;</a> Clock driver for JJY
receivers</li>
<li><a href="mailto:%20mark_andrews@isc.org">Mark Andrews &lt;mark_andrews@isc.org&gt;</a> Leitch
atomic clock controller</li>
<li><a href="mailto:%20altmeier@atsoft.de">Bernd Altmeier &lt;altmeier@atsoft.de&gt;</a> hopf Elektronik
serial line and PCI-bus devices</li>
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href="mailto:%20kirkwood@striderfm.intel.com">Clayton Kirkwood &lt;kirkwood@striderfm.intel.com&gt;</a>
port to WindowsNT 3.5</li>
<li><a href="mailto:%20michael.barone@lmco.com">Michael Barone &lt;michael,barone@lmco.com&gt;</a>

```

GPSVME fixes
Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option
Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.
Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver
Piete Brooks <Piete.Brooks@cl.cam.ac.uk> MSF clock driver, Trimble PARSE support
Nelson B Bolyard <nelson@bolyard.me> update and complete broadcast and crypto features in snpt
Jean-Francois Boudreault <Jean-Francois.Boudreault@viagenie.qc.ca> IPv6 support
Reg Clemens <reg@dwf.com> Oncore driver (Current maintainer)
Steve Clift <clift@ml.csiro.au> OMEGA clock driver
Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration
Sven Dietrich <sven_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.
John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port
Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port
Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119
John Hay <jhay@icomtek.csir.co.za> IPv6 support and testing
Dave Hart <davehart@davehart.com> General maintenance, Windows port interpolation rewrite
Claas Hilbrecht <neoclock4x@linum.com> NeoClock4X clock driver
Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver
Mike Iglesias <iglesias@uci.edu> DEC Alpha port
Jim Jagielski <jim@jagubox.gsfc.nasa.gov> A/UX port
Jeff Johnson <jbj@chatham.usdesign.com> massive prototyping overhaul
Hans Lambermont <Hans.Lambermont@nl.origin-it.com> or <H.Lambermont@chello.nl> ntp sweep
Poul-Henning Kamp <phk@FreeBSD.ORG> Oncore driver (Original author)
Frank Kardel <kardel (at) ntp (dot) org> PARSE <GENERIC> (driver 14 reference clocks), STREAMS modules for PARSE, support scripts, syslog cleanup, dynamic interface handling

Johannes Maximilian Kuehn <kuehn@ntp.org> Rewrote <tt>snpt</tt> to comply with NTPv4 specification, <tt>ntpq saveconfig</tt>

William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications

Dave Katz <dkatz@cisco.com> RS/6000 AIX port

Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver

George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port

Louis A. Mamakos <louie@ni.umd.edu> MD5-based authentication

Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305

Danny Mayer <mayer@ntp.org> Network I/O, Windows Port, Code Maintenance

David L. Mills <mills@udel.edu> Version 4 foundation, precision kernel; clock drivers: 1, 3, 4, 6, 7, 11, 13, 18, 19, 22, 36

Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port

Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility

Tom Moore <tmoore@fieval.daytonoh.ncr.com> i386 svr4 port

Kamal A Mostafa <kamal@whence.com> SCO OpenServer port

Derek Mulcahy <derek@toybox.demon.co.uk> and Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver

Rob Neal <neal@ntp.org> Bancomm refclock and config/parse code maintenance

Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling

Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port

Wilfredo Sáanchez <wsanchez@apple.com> added support for NetInfo

Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules

Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory

Ray Schnitzler <schnitz@unipress.com> Unixware1 port

Michael Shields <shields@tembel.org> USNO clock driver

Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver

Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)

Kenneth Stone <ken@sdd.hp.com> HP-UX port

Ajit Thyagarajan <ajit@ee.udel.edu> IP multicast/anycast

```
support</li>
<li><a href="mailto:%20tsuruoka@nc.fukuoka-u.ac.jp">Tomoaki TSURUOKA &lt;tsuruoka@nc.fukuoka-
u.ac.jp&gt;</a>TRAK clock driver</li>
<li><a href="mailto:%20brian.utterback@oracle.com">Brian Utterback &lt;brian.utterback@oracle.com&gt;</a>
General codebase, Solaris issues</li>
<li><a href="mailto:%20loganaden@gmail.com">Loganaden Velvindron &lt;loganaden@gmail.com&gt;</a>
Sandboxing (libseccomp) support</li>
<li><a href="mailto:%20vixie@vix.com">Paul A Vixie &lt;vixie@vix.com&gt;</a> TrueTime GPS driver,
generic TrueTime clock driver</li>
<li><a href="mailto:%20Ulrich.Windl@rz.uni-regensburg.de">Ulrich Windl &lt;Ulrich.Windl@rz.uni-
regensburg.de&gt;</a> corrected and validated HTML documents according to the HTML DTD</li>
</ol>
<hr>
</body>
</html>
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1. [1]Takao Abe <takao_abe@xurb.jp> Clock driver for JJY receivers
2. [2]Mark Andrews <mark_andrews@isc.org> Leitch atomic clock controller
3. [3]Bernd Altmeier <altmeier@atlsoft.de> hopf Elektronik serial line and PCI-bus devices
4. [4]Viraj Bais <vbais@mailman1.intel.com> and [5]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5
5. [6]Michael Barone <michael,barone@lmco.com> GPSVME fixes
6. [7]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option
7. [8]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.
8. [9]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver
9. [10]Piete Brooks <Piete.Brooks@cl.cam.ac.uk> MSF clock driver, Trimble PARSE support
10. [11]Nelson B Bolyard <nelson@bolyard.me> update and complete broadcast and crypto features in sntp

11. [12]Jean-Francois Boudreault
<Jean-Francois.Boudreault@viagenie.qc.ca> IPv6 support
12. [13]Reg Clemens <reg@dwf.com> Oncore driver (Current maintainer)
13. [14]Steve Clift <clift@ml.csiro.au> OMEGA clock driver
14. [15]Casey Crellin <casey@csc.co.za> vxWorks (Tornado) port and help with target configuration
15. [16]Sven Dietrich <sven_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.
16. [17]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port
17. [18]Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port
18. [19]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119
19. [20]John Hay <jhay@icomtek.csir.co.za> IPv6 support and testing
20. [21]Dave Hart <davehart@davehart.com> General maintenance, Windows port interpolation rewrite
21. [22]Claas Hilbrecht <neoclock4x@linum.com> NeoClock4X clock driver
22. [23]Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver
23. [24]Mike Iglesias <iglesias@uci.edu> DEC Alpha port
24. [25]Jim Jagielski <jim@jagubox.gsfc.nasa.gov> A/UX port
25. [26]Jeff Johnson <jbj@chatham.usdesign.com> massive prototyping overhaul
26. [27]Hans Lambermont <Hans.Lambermont@nl.origin-it.com> or [28]<H.Lambermont@chello.nl> ntpsweep
27. [29]Poul-Henning Kamp <phk@FreeBSD.ORG> Oncore driver (Original author)
28. [30]Frank Kardel [31]<kardel (at) ntp (dot) org> PARSE <GENERIC> (driver 14 reference clocks), STREAMS modules for PARSE, support scripts, syslog cleanup, dynamic interface handling
29. [32]Johannes Maximilian Kuehn <kuehn@ntp.org> Rewrote snpt to comply with NTPv4 specification, ntpq saveconfig
30. [33]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications
31. [34]Dave Katz <dkatz@cisco.com> RS/6000 AIX port
32. [35]Craig Leres <leres@ee.lbl.gov> 4.BSD port, ppsclock, Magnavox GPS clock driver
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35. [38]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305
36. [39]Danny Mayer <mayer@ntp.org>Network I/O, Windows Port, Code Maintenance
37. [40]David L. Mills <mills@udel.edu> Version 4 foundation, precision kernel; clock drivers: 1, 3, 4, 6, 7, 11, 13, 18, 19, 22, 36
38. [41]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port
39. [42]Jeffrey Mogul <mogul@pa.dec.com> ntprtrace utility
40. [43]Tom Moore <tmoore@fieval.daytonoh.ncr.com> i386 svr4 port
41. [44]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port
42. [45]Derek Mulcahy <derek@toybox.demon.co.uk> and [46]Damon

- Hart-Davis <d@hd.org> ARCRON MSF clock driver
43. [47]Rob Neal <neal@ntp.org> Bancomm refclock and config/parse code maintenance
44. [48]Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling
45. [49]Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port
46. [50]Wilfredo Snchez <wsanchez@apple.com> added support for NetInfo
47. [51]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules
48. [52]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory
49. [53]Ray Schnitzler <schnitz@unipress.com> Unixware1 port
50. [54]Michael Shields <shields@tembel.org> USNO clock driver
51. [55]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver
52. [56]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)
53. [57]Kenneth Stone <ken@sdd.hp.com> HP-UX port
54. [58]Ajit Thyagarajan <ajit@ee.udel.edu>IP multicast/anycast support
55. [59]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp>TRAK clock driver
56. [60]Brian Utterback <brian.utterback@oracle.com> General codebase, Solaris issues
57. [61]Loganaden Velvindron <loganaden@gmail.com> Sandboxing (libseccomp) support
58. [62]Paul A Vixie <vixie@vix.com> TrueTime GPS driver, generic TrueTime clock driver
59. [63]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and validated HTML documents according to the HTML DTD
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References

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1.211 aws-c-http 0.6.27

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1.212 libssh2 1.8.2

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1.213 libyaml-cpp 0.7.0

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1.214 fribidi 1.0.5

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1.215 kexec-tools 2.0.17 1

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1.216 python-setuptools 47.1.0

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1.217 josharian-native 1.0.0

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1.218 python-setuptools 41.0.1

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1.219 zstd 1.4.5

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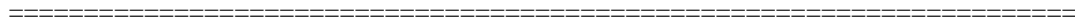
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. The `grn' preprocessor, written by Barry Roitblat <barry@rentonww.com> and David Slattengren <slatteng@Xinet.COM>. These files have been part of the original Berkeley ditroff distribution, without AT&T code, and are in the public domain.

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```
src/preproc/grn/gprint.h
src/preproc/grn/hdb.cpp
src/preproc/grn/hgraph.cpp
src/preproc/grn/hpoint.cpp
src/preproc/grn/main.cpp
```

. The `gxditview' output device. It is based on X11's `xditview' program and thus has the X license.

```
src/devices/xditview/DESC.in
src/devices/xditview/Dvi.c
src/devices/xditview/Dvi.h
src/devices/xditview/DviP.h
src/devices/xditview/FontMap
src/devices/xditview/GXditview.ad
src/devices/xditview/Menu.h
src/devices/xditview/ad2c
src/devices/xditview/device.c
src/devices/xditview/device.h
src/devices/xditview/draw.c
src/devices/xditview/font.c
src/devices/xditview/gray1.bm
src/devices/xditview/gray2.bm
src/devices/xditview/gray3.bm
src/devices/xditview/gray4.bm
src/devices/xditview/gray5.bm
```

src/devices/xditview/gray6.bm
src/devices/xditview/gray7.bm
src/devices/xditview/gray8.bm
src/devices/xditview/gxditview.man
src/devices/xditview/lex.c
src/devices/xditview/page.c
src/devices/xditview/parse.c
src/devices/xditview/xdit.bm
src/devices/xditview/xdit_mask.bm
src/devices/xditview/xditview.c

src/include/DviChar.h
src/include/XFontName.h

src/libs/libxutil/DviChar.c
src/libs/libxutil/XFontName.c

Macro Packages

. The -mdoc macro set, using the BSD license.

tmac/doc.tmac
tmac/doc-old.tmac
tmac/doc-common
tmac/doc-ditroff
tmac/doc-nroff
tmac/doc-syms
tmac/groff_mdoc.man

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tmac/e.tmac
tmac/groff_me.man
doc/meintro.me
doc/meintro_fr.me
doc/meref.me

Hyphenation Patterns

. The file `tmac/hyphen.us' is identical to the file `hyphen.tex', part of the TeX system written by Donald E. Knuth; the master file can be found at

<ftp://labrea.stanford.edu/pub/tex/dist/lib/hyphen.tex> .

It has been renamed for consistency, i.e., to make patterns available under the filenames ``hyphen.<language>'`, e.g. ``hyphen.de'` or ``hyphen.uk'`.

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. The file ``tmac/hyphen.fr'` contains the same patterns as the file ``frhyph.tex'` (for TeX), which can be found at

<http://dante.ctan.org/CTAN/language/hyphenation/frhyph.tex> .

The patterns have been converted to a format groff can understand.

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. The file ``tmac/hyphen.sv'` is identical to the file ``svhyph.tex'`, which can be found at

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. The files ``tmac/hyphen.det'` and ``tmac/hyphen.den'` contain the same patterns as the files ``dehyph-x-2017-03-31.pat'` and ``dehyphn-x-2017-03-31.pat'` (for TeX), respectively, which can be found at

<http://ctan.org/tex-archive/language/hyphenation/dehyph-exptl>

The patterns have been converted to latin-1.

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. The file ``tmac/hyphen.cs'` contains the same patterns as the file ``czhyphen.tex'` (for TeX), which can be found in the archive

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1.230 cavium-liquidio 3.1.2

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1.231 tpm2-tss-tcti 2.2.3-1

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1.232 sed 4.7-1

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1.234 nload 0.7.4 5

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* /opt/cola/permits/1223921723_1667342120.8999903/0/lua-5-3-6-1-tar-gz/lua-5.3.6/src/lua.h

No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1223921723_1667342120.8999903/0/lua-5-3-6-1-tar-gz/lua-5.3.6/doc/contents.html

1.236 libjitterentropy 2.1.2

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1.237 go-ps 1.0.0

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1.238 libxmu 1.1.3-1

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1.240 pcre 10.40

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1.241 icu 72

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```

for an example; there should be only two files to update.
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## BSD-specific setup (FreeBSD, OpenBSD, NetBSD, *BSD)
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## Commands to generate dependency files
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)

## Flags for position independent code
SHAREDLIBCFLAGS = -fPIC
SHAREDLIBCXXFLAGS = -fPIC
SHAREDLIBCPPFLAGS = -DPIC

## Additional flags when building libraries and with threads
THREADSCPPFLAGS = -D_REENTRANT
LIBCPPFLAGS =

## Compiler switch to embed a runtime search path
LD_RPATH=
LD_RPATH_PRE= -Wl,-rpath,

## Compiler switch to embed a library name
LD_SONAME = -Wl,-soname -Wl,$(notdir $(MIDDLE_SO_TARGET))

## Shared library options
LD_SOOPTIONS= -Wl,-Bsymbolic

## Shared object suffix
SO = so
## Non-shared intermediate object suffix
STATIC_O = ao

## Compilation rules
%. $(STATIC_O): $(srcdir)/%.c
$(COMPILE.c) $(STATICCPPFLAGS) $(STATICCFLAGS) -o $@ $<
%.o: $(srcdir)/%.c
$(COMPILE.c) $(DYNAMICCPPFLAGS) $(DYNAMICCFLAGS) -o $@ $<

%. $(STATIC_O): $(srcdir)/%.cpp
$(COMPILE.cc) $(STATICCPPFLAGS) $(STATICCXXFLAGS) -o $@ $<
%.o: $(srcdir)/%.cpp
$(COMPILE.cc) $(DYNAMICCPPFLAGS) $(DYNAMICCXXFLAGS) -o $@ $<

```

```

## Dependency rules
%.d: $(srcdir)/%.c
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.c) $< \
| sed "s/($*)\.o[ :]*\1.o $@ :/g" > $@; \
[ -s $@ ] || rm -f $@'

%.d: $(srcdir)/%.cpp
@echo "generating dependency information for $<"
@$(SHELL) -ec '$(GEN_DEPS.cc) $< \
| sed "s/($*)\.o[ :]*\1.o $@ :/g" > $@; \
[ -s $@ ] || rm -f $@'

## Versioned libraries rules

%.${SO}.${SO_TARGET_VERSION_MAJOR}: %.${SO}.${SO_TARGET_VERSION}
$(RM) $@ && ln -s ${<F} $@
%.${SO}: %.${SO}.${SO_TARGET_VERSION_MAJOR}
$(RM) $@ && ln -s ${*F}.${SO}.${SO_TARGET_VERSION} $@

## Bind internal references

# LDflags that pkgdata will use
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

## Remove shared library 's'
STATIC_PREFIX_WHEN_USED =
STATIC_PREFIX =

## End BSD-specific setup
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1.243 ibus 1.5.20-2

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* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusinputcontext.h
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* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusproperty.h

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* USA
*/
/**
* ibus_component_new:
* @name: Name of the component.
* @description: Detailed description of component.
* @version: Component version.
* @license: Distribution license of this component.
* @author: Author(s) of the component.
* @homepage: Homepage of the component.
```

```

* @command_line: path to component executable.
* @textdomain: Domain name for dgettext()
*
* Creates a new #IBusComponent.
*
* Returns: A newly allocated #IBusComponent.
*/
/**
* ibus_component_get_license:
* @component: An #IBusComponent
*
* Gets the license property in #IBusComponent. It should not be freed.
*
* Returns: license property in #IBusComponent
*/

```

Found in path(s):

```

* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibuscomponent.h

```

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* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibuskeys.h

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*/
/**
* ibus_engine_desc_new:
* @name: Name of the engine.
* @longname: Long name of the input method engine.
* @description: Input method engine description.
* @language: Language (e.g. zh, jp) supported by this input method engine.
* @license: License of the input method engine.
* @author: Author of the input method engine.
* @icon: Icon file of this engine.
* @layout: Keyboard layout
*
* Creates a new #IBusEngineDesc.
* If layout is "default", the engine inherits the current layout and
* does not change the layout. The layouts "default" and "" are same.
* E.g. If you switch JP XKB engine and an input method engine (IME),
* the IME inherits the JP layout.
*
* Returns: A newly allocated IBusEngineDesc.
*/
/**
* ibus_engine_desc_get_license:
* @info: An IBusEngineDesc
*
* Gets the license property in IBusEngineDesc. It should not be freed.
*
* Returns: license property in IBusEngineDesc
*/

```

Found in path(s):

```

* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-
1.0/ibusenginedesc.h

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* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusproplist.h
* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusattrlist.h
* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibushotkey.h
* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibuslookuptable.h
* /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusattribute.h

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1.0/ibusxevent.h
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- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusengine.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusconfig.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusconfigservice.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusdebug.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusfactory.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusproxy.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibuskeysyms.h
- * /opt/cola/permits/1662641927_1683901569.337527/0/libibus-1-5-20-2-x86-64-pkg-tar-xz/usr/include/ibus-1.0/ibusobject.h

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1.246 linux-kernel 5.15.0-46.49~20.04.1

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1.248 less 551-1

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1.250 libffi 3.2.1-3

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1.252 libomxil-bellagio 0.9.3 2

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1.254 v4l-utils 1.16.6-1

1.254.1 Available under license :

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```
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 * Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
 *
 * Described at ISO/IEC 13818-1
 */
/**
 * @file header.h
 * @ingroup dvb_table
 * @brief Provides the MPEG TS table headers
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Mauro Carvalho Chehab
 * @author Andre Roth
 *
 * @par Bug Report
 * Please submit bug reports and patches to linux-media@vger.kernel.org
 */
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/header.h
```

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*
*/
/**
 * @file mpeg_pes.h
 * @ingroup dvb_table
 * @brief Provides the table parser for the MPEG-PES Elementary Stream
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Andre Roth
 *
 * @par Relevant specs
 * The table described herein is defined in ISO 13818-1
 *
 * @see
 * http://dvd.sourceforge.net/dvdinfo/pes-hdr.html
 *
 * @par Bug Report
 * Please submit bug reports and patches to linux-media@vger.kernel.org
 */
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/mpeg_pes.h
```

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*
*/
/**
* @file mgt.h
* @ingroup dvb_table
* @brief Provides the table parser for the ATSC MGT (Master Guide Table)
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Andre Roth
*
* @par Relevant specs
* The table described herein is defined at:
* - ATSC A/65:2009
*
* @see
* http://www.etherguidesystems.com/help/sdos/atsc/syntax/tablesections/MGT.aspx
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/mgt.h

```

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```

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* Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
*/
/**
* @file dvb-scan.h
* @ingroup frontend_scan

```

```
* @brief Provides interfaces to scan programs inside MPEG-TS digital TV streams.
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
*/opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/dvb-scan.h
```

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* Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
*
*/
/**
* @file desc_event_short.h
* @ingroup descriptors
* @brief Provides the descriptors for the short event descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-  
xz/usr/include/libdvbv5/desc_event_short.h
```

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```
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```

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```

```
*
```

```
* Described on ARIB STD-B10 as Terrestrial delivery system descriptor
```

```
*/
```

```
/**
```

```
* @file desc_isdbt_delivery.h
```

```
* @ingroup descriptors
```

```
* @brief Provides the descriptors for the ISDB-T terrestrial delivery system
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
*
```

```
* @par Relevant specs
```

```
* The descriptor described herein is defined at:
```

```
* - ARIB STD-B10
```

```
*
```

```
* @par Bug Report
```

```
* Please submit bug reports and patches to linux-media@vger.kernel.org
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-  
xz/usr/include/libdvbv5/desc_isdbt_delivery.h
```

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```
/*
```

```
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```

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```

```
*
```

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*
*/
/**
* @file desc_network_name.h
* @ingroup descriptors
* @brief Provides the descriptors for the network name descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1 (2010-04)
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_network_name.h

```

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*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libv4lconvert.h
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libv4l1.h
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libv4l2.h
No license file was found, but licenses were detected in source scan.
```

```
rdf:resource="http://creativecommons.org/ns#Attribution" />
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/icons/hicolor/scalable/apps/qv4l2.svg
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/icons/hicolor/scalable/apps/qvidcap.svg
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```

```
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```

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* Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
*
*/
/**
 * @file desc_atsc_service_location.h
 * @ingroup descriptors
 * @brief Provides the descriptors for ATSC service location
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Mauro Carvalho Chehab
 *
 * @par Relevant specs
```

* The descriptor described herein is defined at:
* - ATSC A/53
*
* @see <http://www.etherguidesystems.com/help/sdos/atsc/semantics/descriptors/ServiceLocation.aspx>
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/desc_atsc_service_location.h

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*

*/

/**

* @file desc_service.h

* @ingroup descriptors

* @brief Provides the descriptors for the service descriptor

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Relevant specs

* The descriptor described herein is defined at:

* - ETSI EN 300 468 V1.11.1

*

* @par Bug Report

* Please submit bug reports and patches to linux-media@vger.kernel.org

*/

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-  
xz/usr/include/libdvbv5/desc_service.h
```

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```
/*
```

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```

```
*
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```

```
*
```

```
*/
```

```
/**
```

```
* @file dvb-fe.h
```

```
* @ingroup frontend
```

```
* @brief Provides interfaces to deal with DVB frontend.
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
*
```

```
* The libdvbv5 API works with a set of key/value properties.
```

```
* There are two types of properties:
```

```
*
```

```
* - The ones defined at the Kernel's frontend API, that are found at
```

```
* /usr/include/linux/dvb/frontend.h (actually, it uses a local copy
```

```
* of that file, stored at ./include/linux/dvb/frontend.h)
```

```
*
```

```
* - Some extra properties used by libdvbv5. Those can be found at
```

```
* lib/include/libdvbv5/dvb-v5-std.h and start at DTV_USER_COMMAND_START.
```

```
*
```

```
* Just like the DTV properties, the stats are cached. That warrants that
```

```
* all stats are got at the same time, when dvb_fe_get_stats() is called.
```

```
*
```

```
* @par Bug Report
```

```
* Please submit bug reports and patches to linux-media@vger.kernel.org
```

```
*/
```

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/dvb-fe.h

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* Author: Konke Radlow <koradlow@gmail.com>

*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libv4l2rds.h

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*

*/

/**

* @file sdt.h

* @ingroup dvb_table

* @brief Provides the descriptors for SDT MPEG-TS table

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Relevant specs

* The table described herein is defined at:

* - ISO/IEC 13818-1

*

* @see <http://www.etherguidesystems.com/Help/SDOs/dvb/syntax/tablesections/SDT.aspx>

*

* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/sdt.h

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*

*/

/**

* @file dvb-log.h

* @ingroup ancillary

* @brief Provides interfaces to handle libdvbv5 log messages.

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Bug Report

* Please submit bug reports and patches to linux-media@vger.kernel.org

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Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/dvb-log.h

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* Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
*
* Based on ETSI EN 300 468 V1.11.1 (2010-04)
*/
/**
 * @file desc_t2_delivery.h
 * @ingroup descriptors
 * @brief Provides the descriptors for the DVB-T2 delivery system descriptor
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Mauro Carvalho Chehab
 *
 * @par Relevant specs
 * The descriptor described herein is defined at:
 * - ETSI EN 300 468 V1.11.1
 *
 * @par Bug Report
 * Please submit bug reports and patches to linux-media@vger.kernel.org
 */
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_t2_delivery.h
```

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*
* Described on IEC/CENELEC DS/EN 62216-1:2011
*
* I couldn't find the original version, so I used what's there at:
* http://tdt.telecom.pt/recursos/apresentacoes/Signalling Specifications for DTT deployment in Portugal.pdf
*/
/**
* @file desc_logical_channel.h
* @ingroup descriptors
* @brief Provides the descriptors for the LCN - Logican Channel Number
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - IEC/CENELEC DS/EN 62216-1:2011
*
* @see http://tdt.telecom.pt/recursos/apresentacoes/Signalling Specifications for DTT deployment in Portugal.pdf
*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_logical_channel.h
```

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```

```
*
* Described on ARIB STD-B10 as TS information descriptor
*/
/**
* @file desc_ts_info.h
* @ingroup descriptors
* @brief Provides the descriptors for the ISDB TS information descriptor.
* The TS information descriptor specifies the remote control key
* identifier assigned to the applicable TS and indicates the relationship
* between the service identifier and the transmission layer during
* hierarchical transmission.
*
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ARIB STD-B10
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```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_ts_info.h
```

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*/
/**
* @file dvb-dev.h
* @ingroup dvb_device
```

```

* @brief Provides interfaces to handle Digital TV devices.
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* Digital TV device node file names depend on udev configuration. For
* example, while frontends are typically found at/dev/dvb/adapter?/frontend?,
* the actual file name can vary from system to system, depending on the
* udev ruleset.
*
* The libdvbv5 provides a set of functions to allow detecting and getting
* the device paths in a sane way, via libudev.
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
/**
* @brief Stops the demux filter for a given file descriptor
* @ingroup dvb_device
*
* @param open_dev Points to the struct dvb_open_descriptor
*
* This is a wrapper function for DMX_STOP ioctl.
*
* See http://linuxtv.org/downloads/v4l-dvb-apis/dvb\_demux.html
* for more details.
*
* @note valid only for DVB_DEVICE_DEMUX.
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/dvb-dev.h

```

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*
*/
/**
* @file pat.h
* @ingroup dvb_table
* @brief Provides the descriptors for PAT MPEG-TS table
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The table described herein is defined at:
* - ISO/IEC 13818-1
*
* @see http://www.etherguidesystems.com/help/sdos/mpeg/syntax/tablesections/pat.aspx
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/pat.h

```

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```

/*
* frontend.h
*
* Copyright (C) 2000 Marcus Metzler <marcus@convergence.de>
*   Ralph Metzler <ralph@convergence.de>
*   Holger Waechtler <holger@convergence.de>
*   Andre Draszik <ad@convergence.de>
*   for convergence integrated media GmbH
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*
*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/dvb-frontend.h

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Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libv4l-plugin.h

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*
*/
/**
* @file desc_language.h
* @ingroup descriptors
* @brief Provides the descriptors for the ISO639 language descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
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*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_language.h
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*
* I couldn't find the original version, so I used what's there at:
* http://tdt.telecom.pt/recurso/apresentacoes/Signalling Specifications for DTT deployment in Portugal.pdf
*/
/**
```

```
* @file desc_partial_reception.h
* @ingroup descriptors
* @brief Provides the descriptors for the ISDB partial reception descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
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*
* @see http://tdt.telecom.pt/recursos/apresentacoes/Signalling Specifications for DTT deployment in Portugal.pdf
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_partial_reception.h
```

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*
*/
/**
* @file nit.h
* @ingroup dvb_table
* @brief Provides the descriptors for NIT MPEG-TS table
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
```

*
* @par Bug Report
* Please submit bug report and patches to linux-media@vger.kernel.org
*
* @par Relevant specs
* The table described herein is defined at:
* - ISO/IEC 13818-1
* - ETSI EN 300 468
*
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*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/nit.h

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*/
/**
* @file dvb-file.h
* @ingroup file
* @brief Provides interfaces to deal with DVB channel and program files.
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* There are basically two types of files used for DVB:
* - files that describe the physical channels (also called as transponders);
* - files that describe the several programs found on a MPEG-TS (also called
* as zap files).
*
* The libdvbv5 library defines an unified type for both types. Other
* applications generally use different formats.
*/

* The purpose of the functions and structures defined herein is to provide
* support to read and write to those different formats.
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/dvb-file.h

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*

*/

/**

* @file mpeg_ts.h

* @ingroup dvb_table

* @brief Provides the table parser for the MPEG-PES Elementary Stream

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Andre Roth

*

* @par Relevant specs

* The table described herein is defined in ISO 13818-1

*

* @see

* http://en.wikipedia.org/wiki/MPEG_transport_stream

*

* @par Bug Report

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*/

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/mpeg_ts.h
```

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```

```
*
```

```
*/
```

```
/**
```

```
* @file desc_frequency_list.h
```

```
* @ingroup descriptors
```

```
* @brief Provides the descriptors for the frequency list descriptor.
```

```
* This descriptor lists the additional frequencies used in transmission
```

```
* of a multiplex on other frequencies.
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
* @author Andre Roth
```

```
*
```

```
* @par Relevant specs
```

```
* The descriptor described herein is defined at:
```

```
* - ETSI EN 300 468 V1.11.1
```

```
*
```

```
* @par Bug Report
```

```
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```

```
*/
```

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```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_frequency_list.h
```

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*
* Per-delivery system properties defined at libdvbv5 scope, following
* the same model as defined at the Linux DVB media specs:
* http://linuxtv.org/downloads/v4l-dvb-apis/FE\_GET\_SET\_PROPERTY.html
*/
/**
* @file dvb-v5-std.h
* @ingroup frontend
* @brief Provides libdvbv5 defined properties for the frontend.
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
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*
*/
/**
* @file mpeg_es.h
* @ingroup dvb_table
* @brief Provides the table parser for the MPEG-TS Elementary Stream
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Andre Roth
*
* @par Relevant specs
* The table described herein is defined in ISO 13818-2
*
* @see
* http://dvd.sourceforge.net/dvdinfo/mpeghdrs.html
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
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* Or, point your browser to http://www.gnu.org/licenses/old-licenses/gpl-2.0.html
*
* Described at ETSI EN 300 468 V1.11.1 (2010-04)
*/
/**
* @file desc_ca.h

```


* @ingroup descriptors
* @brief Provides the descriptors for Conditional Access
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1 (2010-04)
*
* @see http://www.etherguidesystems.com/help/sdos/mpeg/semantics/mpeg-2/descriptors/CA_descriptor.aspx
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
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Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/desc_ca.h

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*

*/

/**

* @file crc32.h

* @ingroup ancillary

* @brief Provides ancillary code to calculate DVB crc32 checksum

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Bug Report

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*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/crc32.h

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*

*/

/**

* @file eit.h

* @ingroup dvb_table

* @brief Provides the table parser for the DVB EIT (Event Information Table)

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Relevant specs

* The table described herein is defined at:

* - ETSI EN 300 468

*

* @see

* <http://www.etherguidesystems.com/Help/SDOs/dvb/syntax/tablesections/EIT.aspx>

*

* @par Bug Report

* Please submit bug reports and patches to linux-media@vger.kernel.org

*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-

xz/usr/include/libdvbv5/eit.h

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*

* Based on ETSI EN 300 468 V1.11.1 (2010-04)

*

*/

/**

* @file desc_terrestrial_delivery.h

* @ingroup descriptors

* @brief Provides the descriptors for the DVB-T terrestrial delivery system descriptor

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Relevant specs

* The descriptor described herein is defined at:

* - ETSI EN 300 468 V1.11.1

*

* @par Bug Report

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*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-

xz/usr/include/libdvbv5/desc_terrestrial_delivery.h

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* Copyright (C) 2014 Akihiro Tsukada

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*
*/
/**
* @file countries.h
* @ingroup ancillary
* @brief Provides ancillary code to convert ISO 3166-1 country codes
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Winfried Koehler
* @author Akihiro Tsukada
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/countries.h
```

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```

```
*
* Described at ETSI EN 300 468 V1.11.1 (2010-04)
*/
/**
* @file desc_cable_delivery.h
* @ingroup descriptors
* @brief Provides the descriptors for the cable delivery system descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1 (2010-04)
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_cable_delivery.h
```

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*
*/
/**
* @file vct.h
* @ingroup dvb_table
* @brief Provides the descriptors for TVCT and CVCT tables
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The table described herein is defined at:
* - ATSC A/65:2009
*
* @see <http://www.etherguidesystems.com/help/sdos/atsc/syntax/tablesections/TVCT.aspx>
* @see <http://www.etherguidesystems.com/help/sdos/atsc/syntax/tablesections/CVCT.aspx>
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/vct.h

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* Or, point your browser to <http://www.gnu.org/licenses/old-licenses/gpl-2.0.html>
*/

/**

* @file descriptors.h
* @ingroup dvb_table
* @brief Provides a way to handle MPEG-TS descriptors found on Digital TV
* streams.
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptors herein are defined on the following specs:

- * - ISO/IEC 13818-1
- * - ETSI EN 300 468 V1.11.1 (2010-04)
- * - SCTE 35 2004
- * - <http://www.etherguidesystems.com/Help/SDOs/ATSC/Semantics/Descriptors/Default.aspx>
- * - <http://www.coolstf.com/tsreader/descriptors.html>
- * - ABNT NBR 15603-1 2007
- * - ATSC A/65:2009 spec
- *
- * @par Bug Report
- * Please submit bug reports and patches to linux-media@vger.kernel.org
- */

Found in path(s):

*/opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/descriptors.h

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 *
 * Described at ETSI EN 300 468 V1.11.1 (2010-04)
 */
```

- ```
/**
 * @file desc_ca_identifier.h
 * @ingroup descriptors
 * @brief Provides the descriptors for the Conditional Access identifier
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Andre Roth
 *
 * @par Relevant specs
 * The descriptor described herein is defined at:
 * - ETSI EN 300 468 V1.11.1 (2010-04)
 *
 * @par Bug Report
```

* Please submit bug reports and patches to linux-media@vger.kernel.org

*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/desc_ca_identifier.h

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*

*/

/**

* @file pmt.h

* @ingroup dvb_table

* @brief Provides the descriptors for PMT MPEG-TS table

* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)

* @author Mauro Carvalho Chehab

* @author Andre Roth

*

* @par Relevant specs

* The table described herein is defined at:

* - ISO/IEC 13818-1

*

* @see <http://www.etherguidesystems.com/help/sdos/mpeg/syntax/tablesections/pmts.aspx>

*

* @par Bug Report

* Please submit bug reports and patches to linux-media@vger.kernel.org

*/

Found in path(s):

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-xz/usr/include/libdvbv5/pmt.h

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 * GNU Lesser General Public License for more details.
 *
 * These routines were originally written as part of the dvb-apps, as:
 * util functions for various ?zap implementations
 *
 * Copyright (C) 2001 Johannes Stezenbach (js@convergence.de)
 * for convergence integrated media
 *
 * Originally licensed as GPLv2 or upper
 */
/**
 * @file dvb-demux.h
 * @ingroup demux
 * @brief Provides interfaces to deal with DVB demux.
 * @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
 * @author Mauro Carvalho Chehab
 *
 * @par Bug Report
 * Please submit bug reports and patches to linux-media@vger.kernel.org
 */
/**
 * @brief Stops the DMX filter for a given file descriptor
 * @ingroup demux
 *
 * @param dmx_fd File descriptor to close
 *
 * This is a wrapper function to DMX_STOP ioctl.
 * See http://linuxtv.org/downloads/v4l-dvb-apis/dvb\_demux.html
 * for more details.
 *
 * @warning Deprecated. Please use dvb_dev_dmx_stop() instead.
 */
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/dvb-demux.h
```

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*
*/
/**
* @file cat.h
* @ingroup dvb_table
* @brief Provides the table parser for the CAT (Conditional Access Table)
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Andre Roth
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/cat.h
```

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*
*/
/**
* @file desc_sat.h
* @ingroup descriptors
* @brief Provides the descriptors for the satellite delivery system descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_sat.h

```

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```

/opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/bin/decode_tm6000: binary file matches

```

Found in path(s):

```

* /bin/grep

```

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```

/*

```

```

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*
*/
/**
* @file atsc_eit.h
* @ingroup dvb_table
* @brief Provides the table parser for the ATSC EIT (Event Information Table)
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The table described herein is defined at:
* - ATSC A/65:2009
*
* @see
* http://www.etherguidesystems.com/help/sdos/atsc/syntax/tablesections/eitks.aspx
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/

```

Found in path(s):

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/atsc_eit.h

```

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*
*/
/**

```

```
* @file atsc_header.h
* @ingroup dvb_table
* @brief Provides some common ATSC stuff
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Andre Roth
*
* @par Bug Report
* Please submit bug reports and patches to linux-media@vger.kernel.org
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/atsc_header.h
```

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```

```
*/
```

```
/**
```

```
* @file dvb-sat.h
```

```
* @ingroup satellite
```

```
* @brief Provides interfaces to deal with DVB Satellite systems.
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
*
```

```
* @par Bug Report
```

```
* Please submit bug reports and patches to linux-media@vger.kernel.org
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/dvb-sat.h
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*/
/**
* @file desc_event_extended.h
* @ingroup descriptors
* @brief Provides the descriptors for the extended event descriptor
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
* @author Mauro Carvalho Chehab
* @author Andre Roth
*
* @par Relevant specs
* The descriptor described herein is defined at:
* - ETSI EN 300 468 V1.11.1
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```

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```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
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* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/ir-keytable-1-gz/ir-keytable.1

```

```

* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/dvb-format-convert-1-gz/dvb-format-convert.1

```

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/dvbv5-zap-1-gz/dvbv5-zap.1
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/dvb-fe-tool-1-gz/dvb-fe-tool.1
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/dvbv5-scan-1-gz/dvbv5-scan.1
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/share/man/man1/ir-ctl-1-gz/ir-ctl.1
```

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```

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*
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```

```
*
```

```
*/
```

```
/**
```

```
* @file desc_extension.h
```

```
* @ingroup descriptors
```

```
* @brief Provides the descriptors for the extension descriptor.
```

```
* The extension descriptor is used to extend the 8-bit namespace
* of the descriptor_tag field.
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
*
```

```
* @par Relevant specs
```

```
* The descriptor described herein is defined at:
```

```
*
```

```
* @see
```

```
* - ETSI EN 300 468 V1.11.1
```

```
*
```

```
* @par Bug Report
```

```
* Please submit bug reports and patches to linux-media@vger.kernel.org
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_extension.h
```

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```
/*
```

```
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```

```
* Copyright (c) 2012 - Andre Roth <neolynx@gmail.com>
```

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```
*
```

```
*/
```

```
/**
```

```
* @file desc_hierarchy.h
```

```
* @ingroup descriptors
```

```
* @brief Provides the descriptors for the hierarchy descriptor
```

```
* @copyright GNU Lesser General Public License version 2.1 (LGPLv2.1)
```

```
* @author Mauro Carvalho Chehab
```

```
* @author Andre Roth
```

```
*
```

```
* @par Relevant specs
```

```
* The descriptor described herein is defined at:
```

```
* - ISO/IEC 13818-1
```

```
*
```

```
* @see
```

```
*
```

```
* @par Bug Report
```

```
* Please submit bug reports and patches to linux-media@vger.kernel.org
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1665669421_1683914087.7904277/0/v4l-utils-1-16-6-1-x86-64-pkg-tar-
xz/usr/include/libdvbv5/desc_hierarchy.h
```


1.255 openjpeg 2.3.1

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1.258 libxfixes 5.0.3-2

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1.259 openssl 3.0.8

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<signature of Ty Coon>, 1 April 1989

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1.260 libpsl 0.21.0-1

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1.261 dbus-glib 0.110

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```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

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Also add information on how to contact you by electronic and paper mail.

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```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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1.262 theora 1.1.1-4

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1.263 tzdata 2019b-1

1.263.1 Available under license :

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```
# version unknown
# This zic input file is in the public domain.
R d 1916 o - Jun 14 23s 1 S
R d 1916 1919 - O Su>=1 23s 0 -
R d 1917 o - Mar 24 23s 1 S
R d 1918 o - Mar 9 23s 1 S
R d 1919 o - Mar 1 23s 1 S
R d 1920 o - F 14 23s 1 S
R d 1920 o - O 23 23s 0 -
R d 1921 o - Mar 14 23s 1 S
```

R d 1921 o - Jun 21 23s 0 -
 R d 1939 o - S 11 23s 1 S
 R d 1939 o - N 19 1 0 -
 R d 1944 1945 - Ap M>=1 2 1 S
 R d 1944 o - O 8 2 0 -
 R d 1945 o - S 16 1 0 -
 R d 1971 o - Ap 25 23s 1 S
 R d 1971 o - S 26 23s 0 -
 R d 1977 o - May 6 0 1 S
 R d 1977 o - O 21 0 0 -
 R d 1978 o - Mar 24 1 1 S
 R d 1978 o - S 22 3 0 -
 R d 1980 o - Ap 25 0 1 S
 R d 1980 o - O 31 2 0 -
 Z Africa/Algiers 0:12:12 - LMT 1891 Mar 15 0:1
 0:9:21 - PMT 1911 Mar 11
 0 d WE%sT 1940 F 25 2
 1 d CE%sT 1946 O 7
 0 - WET 1956 Ja 29
 1 - CET 1963 Ap 14
 0 d WE%sT 1977 O 21
 1 d CE%sT 1979 O 26
 0 d WE%sT 1981 May
 1 - CET
 Z Atlantic/Cape_Verde -1:34:4 - LMT 1912 Ja 1 2u
 -2 - -02 1942 S
 -2 1 -01 1945 O 15
 -2 - -02 1975 N 25 2
 -1 - -01
 Z Africa/Ndjamena 1:0:12 - LMT 1912
 1 - WAT 1979 O 14
 1 1 WAST 1980 Mar 8
 1 - WAT
 Z Africa/Abidjan -0:16:8 - LMT 1912
 0 - GMT
 L Africa/Abidjan Africa/Bamako
 L Africa/Abidjan Africa/Banjul
 L Africa/Abidjan Africa/Conakry
 L Africa/Abidjan Africa/Dakar
 L Africa/Abidjan Africa/Freetown
 L Africa/Abidjan Africa/Lome
 L Africa/Abidjan Africa/Nouakchott
 L Africa/Abidjan Africa/Ouagadougou
 L Africa/Abidjan Atlantic/St_Helena
 R K 1940 o - Jul 15 0 1 S
 R K 1940 o - O 1 0 0 -
 R K 1941 o - Ap 15 0 1 S
 R K 1941 o - S 16 0 0 -

R K 1942 1944 - Ap 1 0 1 S
R K 1942 o - O 27 0 0 -
R K 1943 1945 - N 1 0 0 -
R K 1945 o - Ap 16 0 1 S
R K 1957 o - May 10 0 1 S
R K 1957 1958 - O 1 0 0 -
R K 1958 o - May 1 0 1 S
R K 1959 1981 - May 1 1 1 S
R K 1959 1965 - S 30 3 0 -
R K 1966 1994 - O 1 3 0 -
R K 1982 o - Jul 25 1 1 S
R K 1983 o - Jul 12 1 1 S
R K 1984 1988 - May 1 1 1 S
R K 1989 o - May 6 1 1 S
R K 1990 1994 - May 1 1 1 S
R K 1995 2010 - Ap lastF 0s 1 S
R K 1995 2005 - S lastTh 24 0 -
R K 2006 o - S 21 24 0 -
R K 2007 o - S Th>=1 24 0 -
R K 2008 o - Au lastTh 24 0 -
R K 2009 o - Au 20 24 0 -
R K 2010 o - Au 10 24 0 -
R K 2010 o - S 9 24 1 S
R K 2010 o - S lastTh 24 0 -
R K 2014 o - May 15 24 1 S
R K 2014 o - Jun 26 24 0 -
R K 2014 o - Jul 31 24 1 S
R K 2014 o - S lastTh 24 0 -
Z Africa/Cairo 2:5:9 - LMT 1900 O
2 K EE% sT
R GH 1920 1942 - S 1 0 0:20 -
R GH 1920 1942 - D 31 0 0 -
Z Africa/Accra -0:0:52 - LMT 1918
0 GH GMT/+0020
Z Africa/Bissau -1:2:20 - LMT 1912 Ja 1 1u
-1 - -01 1975
0 - GMT
Z Africa/Nairobi 2:27:16 - LMT 1928 Jul
3 - EAT 1930
2:30 - +0230 1940
2:45 - +0245 1960
3 - EAT
L Africa/Nairobi Africa/Addis_Ababa
L Africa/Nairobi Africa/Asmara
L Africa/Nairobi Africa/Dar_es_Salaam
L Africa/Nairobi Africa/Djibouti
L Africa/Nairobi Africa/Kampala
L Africa/Nairobi Africa/Mogadishu

L Africa/Nairobi Indian/Antananarivo
L Africa/Nairobi Indian/Comoro
L Africa/Nairobi Indian/Mayotte
Z Africa/Monrovia -0:43:8 - LMT 1882
-0:43:8 - MMT 1919 Mar
-0:44:30 - MMT 1972 Ja 7
0 - GMT
R L 1951 o - O 14 2 1 S
R L 1952 o - Ja 1 0 0 -
R L 1953 o - O 9 2 1 S
R L 1954 o - Ja 1 0 0 -
R L 1955 o - S 30 0 1 S
R L 1956 o - Ja 1 0 0 -
R L 1982 1984 - Ap 1 0 1 S
R L 1982 1985 - O 1 0 0 -
R L 1985 o - Ap 6 0 1 S
R L 1986 o - Ap 4 0 1 S
R L 1986 o - O 3 0 0 -
R L 1987 1989 - Ap 1 0 1 S
R L 1987 1989 - O 1 0 0 -
R L 1997 o - Ap 4 0 1 S
R L 1997 o - O 4 0 0 -
R L 2013 o - Mar lastF 1 1 S
R L 2013 o - O lastF 2 0 -
Z Africa/Tripoli 0:52:44 - LMT 1920
1 L CE%sT 1959
2 - EET 1982
1 L CE%sT 1990 May 4
2 - EET 1996 S 30
1 L CE%sT 1997 O 4
2 - EET 2012 N 10 2
1 L CE%sT 2013 O 25 2
2 - EET
R MU 1982 o - O 10 0 1 -
R MU 1983 o - Mar 21 0 0 -
R MU 2008 o - O lastSu 2 1 -
R MU 2009 o - Mar lastSu 2 0 -
Z Indian/Mauritius 3:50 - LMT 1907
4 MU +04/+05
R M 1939 o - S 12 0 1 -
R M 1939 o - N 19 0 0 -
R M 1940 o - F 25 0 1 -
R M 1945 o - N 18 0 0 -
R M 1950 o - Jun 11 0 1 -
R M 1950 o - O 29 0 0 -
R M 1967 o - Jun 3 12 1 -
R M 1967 o - O 1 0 0 -
R M 1974 o - Jun 24 0 1 -

R M 1974 o - S 1 0 0 -
R M 1976 1977 - May 1 0 1 -
R M 1976 o - Au 1 0 0 -
R M 1977 o - S 28 0 0 -
R M 1978 o - Jun 1 0 1 -
R M 1978 o - Au 4 0 0 -
R M 2008 o - Jun 1 0 1 -
R M 2008 o - S 1 0 0 -
R M 2009 o - Jun 1 0 1 -
R M 2009 o - Au 21 0 0 -
R M 2010 o - May 2 0 1 -
R M 2010 o - Au 8 0 0 -
R M 2011 o - Ap 3 0 1 -
R M 2011 o - Jul 31 0 0 -
R M 2012 2013 - Ap lastSu 2 1 -
R M 2012 o - Jul 20 3 0 -
R M 2012 o - Au 20 2 1 -
R M 2012 o - S 30 3 0 -
R M 2013 o - Jul 7 3 0 -
R M 2013 o - Au 10 2 1 -
R M 2013 2018 - O lastSu 3 0 -
R M 2014 2018 - Mar lastSu 2 1 -
R M 2014 o - Jun 28 3 0 -
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R M 2015 o - Jun 14 3 0 -
R M 2015 o - Jul 19 2 1 -
R M 2016 o - Jun 5 3 0 -
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R M 2019 o - May 5 3 -1 -
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R M 2020 o - May 24 2 0 -
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R M 2022 o - May 8 2 0 -
R M 2023 o - Mar 19 3 -1 -
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R M 2024 o - Ap 14 2 0 -
R M 2025 o - F 23 3 -1 -
R M 2025 o - Ap 6 2 0 -
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R M 2026 o - Mar 22 2 0 -

R M 2027 o - F 7 3 -1 -
R M 2027 o - Mar 14 2 0 -
R M 2028 o - Ja 23 3 -1 -
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R M 2029 o - D 30 3 -1 -
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R M 2031 o - Ja 26 2 0 -
R M 2031 o - D 14 3 -1 -
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R M 2032 o - N 28 3 -1 -
R M 2033 o - Ja 9 2 0 -
R M 2033 o - N 20 3 -1 -
R M 2033 o - D 25 2 0 -
R M 2034 o - N 5 3 -1 -
R M 2034 o - D 17 2 0 -
R M 2035 o - O 28 3 -1 -
R M 2035 o - D 2 2 0 -
R M 2036 o - O 19 3 -1 -
R M 2036 o - N 23 2 0 -
R M 2037 o - O 4 3 -1 -
R M 2037 o - N 15 2 0 -
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R M 2038 o - O 31 2 0 -
R M 2039 o - S 18 3 -1 -
R M 2039 o - O 23 2 0 -
R M 2040 o - S 2 3 -1 -
R M 2040 o - O 14 2 0 -
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R M 2044 o - Jul 24 3 -1 -
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R M 2048 o - Jun 7 3 -1 -
R M 2048 o - Jul 19 2 0 -
R M 2049 o - May 30 3 -1 -
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R M 2050 o - May 15 3 -1 -
R M 2050 o - Jun 26 2 0 -
R M 2051 o - May 7 3 -1 -
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R M 2052 o - Ap 28 3 -1 -
R M 2052 o - Jun 2 2 0 -
R M 2053 o - Ap 13 3 -1 -
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R M 2063 o - D 16 3 -1 -
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R M 2070 o - N 9 2 0 -
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R M 2071 o - O 25 2 0 -
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R M 2073 o - Au 27 3 -1 -
R M 2073 o - O 8 2 0 -
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R M 2076 o - Jul 26 3 -1 -
R M 2076 o - S 6 2 0 -
R M 2077 o - Jul 18 3 -1 -
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R M 2078 o - Jul 10 3 -1 -
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R M 2079 o - Jun 25 3 -1 -
R M 2079 o - Jul 30 2 0 -
R M 2080 o - Jun 16 3 -1 -
R M 2080 o - Jul 21 2 0 -
R M 2081 o - Jun 1 3 -1 -
R M 2081 o - Jul 13 2 0 -
R M 2082 o - May 24 3 -1 -
R M 2082 o - Jun 28 2 0 -
R M 2083 o - May 16 3 -1 -
R M 2083 o - Jun 20 2 0 -
R M 2084 o - Ap 30 3 -1 -
R M 2084 o - Jun 11 2 0 -
R M 2085 o - Ap 22 3 -1 -
R M 2085 o - May 27 2 0 -
R M 2086 o - Ap 14 3 -1 -
R M 2086 o - May 19 2 0 -
R M 2087 o - Mar 30 3 -1 -
R M 2087 o - May 4 2 0 -
Z Africa/Casablanca -0:30:20 - LMT 1913 O 26
0 M +00/+01 1984 Mar 16
1 - +01 1986
0 M +00/+01 2018 O 28 3
1 M +01/+00
Z Africa/El_Aaiun -0:52:48 - LMT 1934
-1 - -01 1976 Ap 14
0 M +00/+01 2018 O 28 3
1 M +01/+00
Z Africa/Maputo 2:10:20 - LMT 1903 Mar
2 - CAT
L Africa/Maputo Africa/Blantyre
L Africa/Maputo Africa/Bujumbura
L Africa/Maputo Africa/Gaborone
L Africa/Maputo Africa/Harare
L Africa/Maputo Africa/Kigali
L Africa/Maputo Africa/Lubumbashi
L Africa/Maputo Africa/Lusaka

R NA 1994 o - Mar 21 0 -1 WAT
R NA 1994 2017 - S Su>=1 2 0 CAT
R NA 1995 2017 - Ap Su>=1 2 -1 WAT
Z Africa/Windhoek 1:8:24 - LMT 1892 F 8
1:30 - +0130 1903 Mar
2 - SAST 1942 S 20 2
2 1 SAST 1943 Mar 21 2
2 - SAST 1990 Mar 21
2 NA %s
Z Africa/Lagos 0:13:36 - LMT 1919 S
1 - WAT
L Africa/Lagos Africa/Bangui
L Africa/Lagos Africa/Brazzaville
L Africa/Lagos Africa/Douala
L Africa/Lagos Africa/Kinshasa
L Africa/Lagos Africa/Libreville
L Africa/Lagos Africa/Luanda
L Africa/Lagos Africa/Malabo
L Africa/Lagos Africa/Niamey
L Africa/Lagos Africa/Porto-Novo
Z Indian/Reunion 3:41:52 - LMT 1911 Jun
4 - +04
Z Africa/Sao_Tome 0:26:56 - LMT 1884
-0:36:45 - LMT 1912 Ja 1 0u
0 - GMT 2018 Ja 1 1
1 - WAT 2019 Ja 1 2
0 - GMT
Z Indian/Mahe 3:41:48 - LMT 1906 Jun
4 - +04
R SA 1942 1943 - S Su>=15 2 1 -
R SA 1943 1944 - Mar Su>=15 2 0 -
Z Africa/Johannesburg 1:52 - LMT 1892 F 8
1:30 - SAST 1903 Mar
2 SA SAST
L Africa/Johannesburg Africa/Maseru
L Africa/Johannesburg Africa/Mbabane
R SD 1970 o - May 1 0 1 S
R SD 1970 1985 - O 15 0 0 -
R SD 1971 o - Ap 30 0 1 S
R SD 1972 1985 - Ap lastSu 0 1 S
Z Africa/Khartoum 2:10:8 - LMT 1931
2 SD CA%ST 2000 Ja 15 12
3 - EAT 2017 N
2 - CAT
Z Africa/Juba 2:6:28 - LMT 1931
2 SD CA%ST 2000 Ja 15 12
3 - EAT
R n 1939 o - Ap 15 23s 1 S

R n 1939 o - N 18 23s 0 -
R n 1940 o - F 25 23s 1 S
R n 1941 o - O 6 0 0 -
R n 1942 o - Mar 9 0 1 S
R n 1942 o - N 2 3 0 -
R n 1943 o - Mar 29 2 1 S
R n 1943 o - Ap 17 2 0 -
R n 1943 o - Ap 25 2 1 S
R n 1943 o - O 4 2 0 -
R n 1944 1945 - Ap M>=1 2 1 S
R n 1944 o - O 8 0 0 -
R n 1945 o - S 16 0 0 -
R n 1977 o - Ap 30 0s 1 S
R n 1977 o - S 24 0s 0 -
R n 1978 o - May 1 0s 1 S
R n 1978 o - O 1 0s 0 -
R n 1988 o - Jun 1 0s 1 S
R n 1988 1990 - S lastSu 0s 0 -
R n 1989 o - Mar 26 0s 1 S
R n 1990 o - May 1 0s 1 S
R n 2005 o - May 1 0s 1 S
R n 2005 o - S 30 1s 0 -
R n 2006 2008 - Mar lastSu 2s 1 S
R n 2006 2008 - O lastSu 2s 0 -
Z Africa/Tunis 0:40:44 - LMT 1881 May 12
0:9:21 - PMT 1911 Mar 11
1 n CE%ST
Z Antarctica/Casey 0 - -00 1969
8 - +08 2009 O 18 2
11 - +11 2010 Mar 5 2
8 - +08 2011 O 28 2
11 - +11 2012 F 21 17u
8 - +08 2016 O 22
11 - +11 2018 Mar 11 4
8 - +08
Z Antarctica/Davis 0 - -00 1957 Ja 13
7 - +07 1964 N
0 - -00 1969 F
7 - +07 2009 O 18 2
5 - +05 2010 Mar 10 20u
7 - +07 2011 O 28 2
5 - +05 2012 F 21 20u
7 - +07
Z Antarctica/Mawson 0 - -00 1954 F 13
6 - +06 2009 O 18 2
5 - +05
Z Indian/Kerguelen 0 - -00 1950
5 - +05

Z Antarctica/DumontDURville 0 - -00 1947
10 - +10 1952 Ja 14
0 - -00 1956 N
10 - +10
Z Antarctica/Syowa 0 - -00 1957 Ja 29
3 - +03
R Tr 2005 ma - Mar lastSu 1u 2 +02
R Tr 2004 ma - O lastSu 1u 0 +00
Z Antarctica/Troll 0 - -00 2005 F 12
0 Tr %s
Z Antarctica/Vostok 0 - -00 1957 D 16
6 - +06
Z Antarctica/Rothera 0 - -00 1976 D
-3 - -03
Z Asia/Kabul 4:36:48 - LMT 1890
4 - +04 1945
4:30 - +0430
R AM 2011 o - Mar lastSu 2s 1 -
R AM 2011 o - O lastSu 2s 0 -
Z Asia/Yerevan 2:58 - LMT 1924 May 2
3 - +03 1957 Mar
4 R +04/+05 1991 Mar 31 2s
3 R +03/+04 1995 S 24 2s
4 - +04 1997
4 R +04/+05 2011
4 AM +04/+05
R AZ 1997 2015 - Mar lastSu 4 1 -
R AZ 1997 2015 - O lastSu 5 0 -
Z Asia/Baku 3:19:24 - LMT 1924 May 2
3 - +03 1957 Mar
4 R +04/+05 1991 Mar 31 2s
3 R +03/+04 1992 S lastSu 2s
4 - +04 1996
4 E +04/+05 1997
4 AZ +04/+05
R BD 2009 o - Jun 19 23 1 -
R BD 2009 o - D 31 24 0 -
Z Asia/Dhaka 6:1:40 - LMT 1890
5:53:20 - HMT 1941 O
6:30 - +0630 1942 May 15
5:30 - +0530 1942 S
6:30 - +0630 1951 S 30
6 - +06 2009
6 BD +06/+07
Z Asia/Thimphu 5:58:36 - LMT 1947 Au 15
5:30 - +0530 1987 O
6 - +06
Z Indian/Chagos 4:49:40 - LMT 1907

5 - +05 1996
6 - +06
Z Asia/Brunei 7:39:40 - LMT 1926 Mar
7:30 - +0730 1933
8 - +08
Z Asia/Yangon 6:24:47 - LMT 1880
6:24:47 - RMT 1920
6:30 - +0630 1942 May
9 - +09 1945 May 3
6:30 - +0630
R Sh 1940 o - Jun 1 0 1 D
R Sh 1940 o - O 12 24 0 S
R Sh 1941 o - Mar 15 0 1 D
R Sh 1941 o - N 1 24 0 S
R Sh 1942 o - Ja 31 0 1 D
R Sh 1945 o - S 1 24 0 S
R Sh 1946 o - May 15 0 1 D
R Sh 1946 o - S 30 24 0 S
R Sh 1947 o - Ap 15 0 1 D
R Sh 1947 o - O 31 24 0 S
R Sh 1948 1949 - May 1 0 1 D
R Sh 1948 1949 - S 30 24 0 S
R CN 1986 o - May 4 2 1 D
R CN 1986 1991 - S Su>=11 2 0 S
R CN 1987 1991 - Ap Su>=11 2 1 D
Z Asia/Shanghai 8:5:43 - LMT 1901
8 Sh C%ST 1949 May 28
8 CN C%ST
Z Asia/Urumqi 5:50:20 - LMT 1928
6 - +06
R HK 1946 o - Ap 21 0 1 S
R HK 1946 o - D 1 3:30s 0 -
R HK 1947 o - Ap 13 3:30s 1 S
R HK 1947 o - N 30 3:30s 0 -
R HK 1948 o - May 2 3:30s 1 S
R HK 1948 1952 - O Su>=28 3:30s 0 -
R HK 1949 1953 - Ap Su>=1 3:30 1 S
R HK 1953 1964 - O Su>=31 3:30 0 -
R HK 1954 1964 - Mar Su>=18 3:30 1 S
R HK 1965 1976 - Ap Su>=16 3:30 1 S
R HK 1965 1976 - O Su>=16 3:30 0 -
R HK 1973 o - D 30 3:30 1 S
R HK 1979 o - May 13 3:30 1 S
R HK 1979 o - O 21 3:30 0 -
Z Asia/Hong_Kong 7:36:42 - LMT 1904 O 30 0:36:42
8 - HKT 1941 Jun 15 3
8 1 HKST 1941 O 1 4
8:30 - HKT 1941 D 25

9 - JST 1945 N 18 2
8 HK HK%ST
R f 1946 o - May 15 0 1 D
R f 1946 o - O 1 0 0 S
R f 1947 o - Ap 15 0 1 D
R f 1947 o - N 1 0 0 S
R f 1948 1951 - May 1 0 1 D
R f 1948 1951 - O 1 0 0 S
R f 1952 o - Mar 1 0 1 D
R f 1952 1954 - N 1 0 0 S
R f 1953 1959 - Ap 1 0 1 D
R f 1955 1961 - O 1 0 0 S
R f 1960 1961 - Jun 1 0 1 D
R f 1974 1975 - Ap 1 0 1 D
R f 1974 1975 - O 1 0 0 S
R f 1979 o - Jul 1 0 1 D
R f 1979 o - O 1 0 0 S
Z Asia/Taipei 8:6 - LMT 1896
8 - CST 1937 O
9 - JST 1945 S 21 1
8 f C%ST
R _ 1942 1943 - Ap 30 23 1 -
R _ 1942 o - N 17 23 0 -
R _ 1943 o - S 30 23 0 S
R _ 1946 o - Ap 30 23s 1 D
R _ 1946 o - S 30 23s 0 S
R _ 1947 o - Ap 19 23s 1 D
R _ 1947 o - N 30 23s 0 S
R _ 1948 o - May 2 23s 1 D
R _ 1948 o - O 31 23s 0 S
R _ 1949 1950 - Ap Sa>=1 23s 1 D
R _ 1949 1950 - O lastSa 23s 0 S
R _ 1951 o - Mar 31 23s 1 D
R _ 1951 o - O 28 23s 0 S
R _ 1952 1953 - Ap Sa>=1 23s 1 D
R _ 1952 o - N 1 23s 0 S
R _ 1953 1954 - O lastSa 23s 0 S
R _ 1954 1956 - Mar Sa>=17 23s 1 D
R _ 1955 o - N 5 23s 0 S
R _ 1956 1964 - N Su>=1 3:30 0 S
R _ 1957 1964 - Mar Su>=18 3:30 1 D
R _ 1965 1973 - Ap Su>=16 3:30 1 D
R _ 1965 1966 - O Su>=16 2:30 0 S
R _ 1967 1976 - O Su>=16 3:30 0 S
R _ 1973 o - D 30 3:30 1 D
R _ 1975 1976 - Ap Su>=16 3:30 1 D
R _ 1979 o - May 13 3:30 1 D
R _ 1979 o - O Su>=16 3:30 0 S

Z Asia/Macau 7:34:10 - LMT 1904 O 30
8 - CST 1941 D 21 23
9 _ +09/+10 1945 S 30 24
8 _ C%sT
R CY 1975 o - Ap 13 0 1 S
R CY 1975 o - O 12 0 0 -
R CY 1976 o - May 15 0 1 S
R CY 1976 o - O 11 0 0 -
R CY 1977 1980 - Ap Su>=1 0 1 S
R CY 1977 o - S 25 0 0 -
R CY 1978 o - O 2 0 0 -
R CY 1979 1997 - S lastSu 0 0 -
R CY 1981 1998 - Mar lastSu 0 1 S
Z Asia/Nicosia 2:13:28 - LMT 1921 N 14
2 CY EE%sT 1998 S
2 E EE%sT
Z Asia/Famagusta 2:15:48 - LMT 1921 N 14
2 CY EE%sT 1998 S
2 E EE%sT 2016 S 8
3 - +03 2017 O 29 1u
2 E EE%sT
L Asia/Nicosia Europe/Nicosia
Z Asia/Tbilisi 2:59:11 - LMT 1880
2:59:11 - TBMT 1924 May 2
3 - +03 1957 Mar
4 R +04/+05 1991 Mar 31 2s
3 R +03/+04 1992
3 e +03/+04 1994 S lastSu
4 e +04/+05 1996 O lastSu
4 1 +05 1997 Mar lastSu
4 e +04/+05 2004 Jun 27
3 R +03/+04 2005 Mar lastSu 2
4 - +04
Z Asia/Dili 8:22:20 - LMT 1912
8 - +08 1942 F 21 23
9 - +09 1976 May 3
8 - +08 2000 S 17
9 - +09
Z Asia/Kolkata 5:53:28 - LMT 1854 Jun 28
5:53:20 - HMT 1870
5:21:10 - MMT 1906
5:30 - IST 1941 O
5:30 1 +0630 1942 May 15
5:30 - IST 1942 S
5:30 1 +0630 1945 O 15
5:30 - IST
Z Asia/Jakarta 7:7:12 - LMT 1867 Au 10
7:7:12 - BMT 1923 D 31 23:47:12

7:20 - +0720 1932 N
7:30 - +0730 1942 Mar 23
9 - +09 1945 S 23
7:30 - +0730 1948 May
8 - +08 1950 May
7:30 - +0730 1964
7 - WIB
Z Asia/Pontianak 7:17:20 - LMT 1908 May
7:17:20 - PMT 1932 N
7:30 - +0730 1942 Ja 29
9 - +09 1945 S 23
7:30 - +0730 1948 May
8 - +08 1950 May
7:30 - +0730 1964
8 - WITA 1988
7 - WIB
Z Asia/Makassar 7:57:36 - LMT 1920
7:57:36 - MMT 1932 N
8 - +08 1942 F 9
9 - +09 1945 S 23
8 - WITA
Z Asia/Jayapura 9:22:48 - LMT 1932 N
9 - +09 1944 S
9:30 - +0930 1964
9 - WIT
R i 1978 1980 - Mar 20 24 1 -
R i 1978 o - O 20 24 0 -
R i 1979 o - S 18 24 0 -
R i 1980 o - S 22 24 0 -
R i 1991 o - May 2 24 1 -
R i 1992 1995 - Mar 21 24 1 -
R i 1991 1995 - S 21 24 0 -
R i 1996 o - Mar 20 24 1 -
R i 1996 o - S 20 24 0 -
R i 1997 1999 - Mar 21 24 1 -
R i 1997 1999 - S 21 24 0 -
R i 2000 o - Mar 20 24 1 -
R i 2000 o - S 20 24 0 -
R i 2001 2003 - Mar 21 24 1 -
R i 2001 2003 - S 21 24 0 -
R i 2004 o - Mar 20 24 1 -
R i 2004 o - S 20 24 0 -
R i 2005 o - Mar 21 24 1 -
R i 2005 o - S 21 24 0 -
R i 2008 o - Mar 20 24 1 -
R i 2008 o - S 20 24 0 -
R i 2009 2011 - Mar 21 24 1 -
R i 2009 2011 - S 21 24 0 -

R i 2012 o - Mar 20 24 1 -
R i 2012 o - S 20 24 0 -
R i 2013 2015 - Mar 21 24 1 -
R i 2013 2015 - S 21 24 0 -
R i 2016 o - Mar 20 24 1 -
R i 2016 o - S 20 24 0 -
R i 2017 2019 - Mar 21 24 1 -
R i 2017 2019 - S 21 24 0 -
R i 2020 o - Mar 20 24 1 -
R i 2020 o - S 20 24 0 -
R i 2021 2023 - Mar 21 24 1 -
R i 2021 2023 - S 21 24 0 -
R i 2024 o - Mar 20 24 1 -
R i 2024 o - S 20 24 0 -
R i 2025 2027 - Mar 21 24 1 -
R i 2025 2027 - S 21 24 0 -
R i 2028 2029 - Mar 20 24 1 -
R i 2028 2029 - S 20 24 0 -
R i 2030 2031 - Mar 21 24 1 -
R i 2030 2031 - S 21 24 0 -
R i 2032 2033 - Mar 20 24 1 -
R i 2032 2033 - S 20 24 0 -
R i 2034 2035 - Mar 21 24 1 -
R i 2034 2035 - S 21 24 0 -
R i 2036 2037 - Mar 20 24 1 -
R i 2036 2037 - S 20 24 0 -
R i 2038 2039 - Mar 21 24 1 -
R i 2038 2039 - S 21 24 0 -
R i 2040 2041 - Mar 20 24 1 -
R i 2040 2041 - S 20 24 0 -
R i 2042 2043 - Mar 21 24 1 -
R i 2042 2043 - S 21 24 0 -
R i 2044 2045 - Mar 20 24 1 -
R i 2044 2045 - S 20 24 0 -
R i 2046 2047 - Mar 21 24 1 -
R i 2046 2047 - S 21 24 0 -
R i 2048 2049 - Mar 20 24 1 -
R i 2048 2049 - S 20 24 0 -
R i 2050 2051 - Mar 21 24 1 -
R i 2050 2051 - S 21 24 0 -
R i 2052 2053 - Mar 20 24 1 -
R i 2052 2053 - S 20 24 0 -
R i 2054 2055 - Mar 21 24 1 -
R i 2054 2055 - S 21 24 0 -
R i 2056 2057 - Mar 20 24 1 -
R i 2056 2057 - S 20 24 0 -
R i 2058 2059 - Mar 21 24 1 -
R i 2058 2059 - S 21 24 0 -

R i 2060 2062 - Mar 20 24 1 -
R i 2060 2062 - S 20 24 0 -
R i 2063 o - Mar 21 24 1 -
R i 2063 o - S 21 24 0 -
R i 2064 2066 - Mar 20 24 1 -
R i 2064 2066 - S 20 24 0 -
R i 2067 o - Mar 21 24 1 -
R i 2067 o - S 21 24 0 -
R i 2068 2070 - Mar 20 24 1 -
R i 2068 2070 - S 20 24 0 -
R i 2071 o - Mar 21 24 1 -
R i 2071 o - S 21 24 0 -
R i 2072 2074 - Mar 20 24 1 -
R i 2072 2074 - S 20 24 0 -
R i 2075 o - Mar 21 24 1 -
R i 2075 o - S 21 24 0 -
R i 2076 2078 - Mar 20 24 1 -
R i 2076 2078 - S 20 24 0 -
R i 2079 o - Mar 21 24 1 -
R i 2079 o - S 21 24 0 -
R i 2080 2082 - Mar 20 24 1 -
R i 2080 2082 - S 20 24 0 -
R i 2083 o - Mar 21 24 1 -
R i 2083 o - S 21 24 0 -
R i 2084 2086 - Mar 20 24 1 -
R i 2084 2086 - S 20 24 0 -
R i 2087 o - Mar 21 24 1 -
R i 2087 o - S 21 24 0 -
R i 2088 ma - Mar 20 24 1 -
R i 2088 ma - S 20 24 0 -
Z Asia/Tehran 3:25:44 - LMT 1916
3:25:44 - TMT 1946
3:30 - +0330 1977 N
4 i +04/+05 1979
3:30 i +0330/+0430
R IQ 1982 o - May 1 0 1 -
R IQ 1982 1984 - O 1 0 0 -
R IQ 1983 o - Mar 31 0 1 -
R IQ 1984 1985 - Ap 1 0 1 -
R IQ 1985 1990 - S lastSu 1s 0 -
R IQ 1986 1990 - Mar lastSu 1s 1 -
R IQ 1991 2007 - Ap 1 3s 1 -
R IQ 1991 2007 - O 1 3s 0 -
Z Asia/Baghdad 2:57:40 - LMT 1890
2:57:36 - BMT 1918
3 - +03 1982 May
3 IQ +03/+04
R Z 1940 o - Jun 1 0 1 D

R Z 1942 1944 - N 1 0 0 S
R Z 1943 o - Ap 1 2 1 D
R Z 1944 o - Ap 1 0 1 D
R Z 1945 o - Ap 16 0 1 D
R Z 1945 o - N 1 2 0 S
R Z 1946 o - Ap 16 2 1 D
R Z 1946 o - N 1 0 0 S
R Z 1948 o - May 23 0 2 DD
R Z 1948 o - S 1 0 1 D
R Z 1948 1949 - N 1 2 0 S
R Z 1949 o - May 1 0 1 D
R Z 1950 o - Ap 16 0 1 D
R Z 1950 o - S 15 3 0 S
R Z 1951 o - Ap 1 0 1 D
R Z 1951 o - N 11 3 0 S
R Z 1952 o - Ap 20 2 1 D
R Z 1952 o - O 19 3 0 S
R Z 1953 o - Ap 12 2 1 D
R Z 1953 o - S 13 3 0 S
R Z 1954 o - Jun 13 0 1 D
R Z 1954 o - S 12 0 0 S
R Z 1955 o - Jun 11 2 1 D
R Z 1955 o - S 11 0 0 S
R Z 1956 o - Jun 3 0 1 D
R Z 1956 o - S 30 3 0 S
R Z 1957 o - Ap 29 2 1 D
R Z 1957 o - S 22 0 0 S
R Z 1974 o - Jul 7 0 1 D
R Z 1974 o - O 13 0 0 S
R Z 1975 o - Ap 20 0 1 D
R Z 1975 o - Au 31 0 0 S
R Z 1980 o - Au 2 0 1 D
R Z 1980 o - S 13 1 0 S
R Z 1984 o - May 5 0 1 D
R Z 1984 o - Au 25 1 0 S
R Z 1985 o - Ap 14 0 1 D
R Z 1985 o - S 15 0 0 S
R Z 1986 o - May 18 0 1 D
R Z 1986 o - S 7 0 0 S
R Z 1987 o - Ap 15 0 1 D
R Z 1987 o - S 13 0 0 S
R Z 1988 o - Ap 10 0 1 D
R Z 1988 o - S 4 0 0 S
R Z 1989 o - Ap 30 0 1 D
R Z 1989 o - S 3 0 0 S
R Z 1990 o - Mar 25 0 1 D
R Z 1990 o - Au 26 0 0 S
R Z 1991 o - Mar 24 0 1 D

R Z 1991 o - S 1 0 0 S
R Z 1992 o - Mar 29 0 1 D
R Z 1992 o - S 6 0 0 S
R Z 1993 o - Ap 2 0 1 D
R Z 1993 o - S 5 0 0 S
R Z 1994 o - Ap 1 0 1 D
R Z 1994 o - Au 28 0 0 S
R Z 1995 o - Mar 31 0 1 D
R Z 1995 o - S 3 0 0 S
R Z 1996 o - Mar 15 0 1 D
R Z 1996 o - S 16 0 0 S
R Z 1997 o - Mar 21 0 1 D
R Z 1997 o - S 14 0 0 S
R Z 1998 o - Mar 20 0 1 D
R Z 1998 o - S 6 0 0 S
R Z 1999 o - Ap 2 2 1 D
R Z 1999 o - S 3 2 0 S
R Z 2000 o - Ap 14 2 1 D
R Z 2000 o - O 6 1 0 S
R Z 2001 o - Ap 9 1 1 D
R Z 2001 o - S 24 1 0 S
R Z 2002 o - Mar 29 1 1 D
R Z 2002 o - O 7 1 0 S
R Z 2003 o - Mar 28 1 1 D
R Z 2003 o - O 3 1 0 S
R Z 2004 o - Ap 7 1 1 D
R Z 2004 o - S 22 1 0 S
R Z 2005 2012 - Ap F<=1 2 1 D
R Z 2005 o - O 9 2 0 S
R Z 2006 o - O 1 2 0 S
R Z 2007 o - S 16 2 0 S
R Z 2008 o - O 5 2 0 S
R Z 2009 o - S 27 2 0 S
R Z 2010 o - S 12 2 0 S
R Z 2011 o - O 2 2 0 S
R Z 2012 o - S 23 2 0 S
R Z 2013 ma - Mar F>=23 2 1 D
R Z 2013 ma - O lastSu 2 0 S
Z Asia/Jerusalem 2:20:54 - LMT 1880
2:20:40 - JMT 1918
2 Z I%ST
R JP 1948 o - May Sa>=1 24 1 D
R JP 1948 1951 - S Sa>=8 25 0 S
R JP 1949 o - Ap Sa>=1 24 1 D
R JP 1950 1951 - May Sa>=1 24 1 D
Z Asia/Tokyo 9:18:59 - LMT 1887 D 31 15u
9 JP J%ST
R J 1973 o - Jun 6 0 1 S

R J 1973 1975 - O 1 0 0 -
R J 1974 1977 - May 1 0 1 S
R J 1976 o - N 1 0 0 -
R J 1977 o - O 1 0 0 -
R J 1978 o - Ap 30 0 1 S
R J 1978 o - S 30 0 0 -
R J 1985 o - Ap 1 0 1 S
R J 1985 o - O 1 0 0 -
R J 1986 1988 - Ap F>=1 0 1 S
R J 1986 1990 - O F>=1 0 0 -
R J 1989 o - May 8 0 1 S
R J 1990 o - Ap 27 0 1 S
R J 1991 o - Ap 17 0 1 S
R J 1991 o - S 27 0 0 -
R J 1992 o - Ap 10 0 1 S
R J 1992 1993 - O F>=1 0 0 -
R J 1993 1998 - Ap F>=1 0 1 S
R J 1994 o - S F>=15 0 0 -
R J 1995 1998 - S F>=15 0s 0 -
R J 1999 o - Jul 1 0s 1 S
R J 1999 2002 - S lastF 0s 0 -
R J 2000 2001 - Mar lastTh 0s 1 S
R J 2002 2012 - Mar lastTh 24 1 S
R J 2003 o - O 24 0s 0 -
R J 2004 o - O 15 0s 0 -
R J 2005 o - S lastF 0s 0 -
R J 2006 2011 - O lastF 0s 0 -
R J 2013 o - D 20 0 0 -
R J 2014 ma - Mar lastTh 24 1 S
R J 2014 ma - O lastF 0s 0 -
Z Asia/Amman 2:23:44 - LMT 1931
2 J EE%sT
Z Asia/Almaty 5:7:48 - LMT 1924 May 2
5 - +05 1930 Jun 21
6 R +06/+07 1991 Mar 31 2s
5 R +05/+06 1992 Ja 19 2s
6 R +06/+07 2004 O 31 2s
6 - +06
Z Asia/Qyzylorda 4:21:52 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 - +05 1981 Ap
5 1 +06 1981 O
6 - +06 1982 Ap
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1991 S 29 2s
5 R +05/+06 1992 Ja 19 2s
6 R +06/+07 1992 Mar 29 2s
5 R +05/+06 2004 O 31 2s

6 - +06 2018 D 21
5 - +05
Z Asia/Qostanay 4:14:28 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 - +05 1981 Ap
5 1 +06 1981 O
6 - +06 1982 Ap
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 2004 O 31 2s
6 - +06
Z Asia/Aqtobe 3:48:40 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 - +05 1981 Ap
5 1 +06 1981 O
6 - +06 1982 Ap
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 2004 O 31 2s
5 - +05
Z Asia/Aqtau 3:21:4 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 - +05 1981 O
6 - +06 1982 Ap
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 1994 S 25 2s
4 R +04/+05 2004 O 31 2s
5 - +05
Z Asia/Atyrau 3:27:44 - LMT 1924 May 2
3 - +03 1930 Jun 21
5 - +05 1981 O
6 - +06 1982 Ap
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 1999 Mar 28 2s
4 R +04/+05 2004 O 31 2s
5 - +05
Z Asia/Oral 3:25:24 - LMT 1924 May 2
3 - +03 1930 Jun 21
5 - +05 1981 Ap
5 1 +06 1981 O
6 - +06 1982 Ap
5 R +05/+06 1989 Mar 26 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 1992 Mar 29 2s
4 R +04/+05 2004 O 31 2s
5 - +05

R KG 1992 1996 - Ap Su>=7 0s 1 -
R KG 1992 1996 - S lastSu 0 0 -
R KG 1997 2005 - Mar lastSu 2:30 1 -
R KG 1997 2004 - O lastSu 2:30 0 -
Z Asia/Bishkek 4:58:24 - LMT 1924 May 2
5 - +05 1930 Jun 21
6 R +06/+07 1991 Mar 31 2s
5 R +05/+06 1991 Au 31 2
5 KG +05/+06 2005 Au 12
6 - +06
R KR 1948 o - Jun 1 0 1 D
R KR 1948 o - S 12 24 0 S
R KR 1949 o - Ap 3 0 1 D
R KR 1949 1951 - S Sa>=7 24 0 S
R KR 1950 o - Ap 1 0 1 D
R KR 1951 o - May 6 0 1 D
R KR 1955 o - May 5 0 1 D
R KR 1955 o - S 8 24 0 S
R KR 1956 o - May 20 0 1 D
R KR 1956 o - S 29 24 0 S
R KR 1957 1960 - May Su>=1 0 1 D
R KR 1957 1960 - S Sa>=17 24 0 S
R KR 1987 1988 - May Su>=8 2 1 D
R KR 1987 1988 - O Su>=8 3 0 S
Z Asia/Seoul 8:27:52 - LMT 1908 Ap
8:30 - KST 1912
9 - JST 1945 S 8
9 - KST 1954 Mar 21
8:30 KR K%ST 1961 Au 10
9 KR K%ST
Z Asia/Pyongyang 8:23 - LMT 1908 Ap
8:30 - KST 1912
9 - JST 1945 Au 24
9 - KST 2015 Au 15
8:30 - KST 2018 May 4 23:30
9 - KST
R l 1920 o - Mar 28 0 1 S
R l 1920 o - O 25 0 0 -
R l 1921 o - Ap 3 0 1 S
R l 1921 o - O 3 0 0 -
R l 1922 o - Mar 26 0 1 S
R l 1922 o - O 8 0 0 -
R l 1923 o - Ap 22 0 1 S
R l 1923 o - S 16 0 0 -
R l 1957 1961 - May 1 0 1 S
R l 1957 1961 - O 1 0 0 -
R l 1972 o - Jun 22 0 1 S
R l 1972 1977 - O 1 0 0 -

R 1 1973 1977 - May 1 0 1 S
R 1 1978 o - Ap 30 0 1 S
R 1 1978 o - S 30 0 0 -
R 1 1984 1987 - May 1 0 1 S
R 1 1984 1991 - O 16 0 0 -
R 1 1988 o - Jun 1 0 1 S
R 1 1989 o - May 10 0 1 S
R 1 1990 1992 - May 1 0 1 S
R 1 1992 o - O 4 0 0 -
R 1 1993 ma - Mar lastSu 0 1 S
R 1 1993 1998 - S lastSu 0 0 -
R 1 1999 ma - O lastSu 0 0 -
Z Asia/Beirut 2:22 - LMT 1880
2 1 EE% sT
R NB 1935 1941 - S 14 0 0:20 -
R NB 1935 1941 - D 14 0 0 -
Z Asia/Kuala_Lumpur 6:46:46 - LMT 1901
6:55:25 - SMT 1905 Jun
7 - +07 1933
7 0:20 +0720 1936
7:20 - +0720 1941 S
7:30 - +0730 1942 F 16
9 - +09 1945 S 12
7:30 - +0730 1982
8 - +08
Z Asia/Kuching 7:21:20 - LMT 1926 Mar
7:30 - +0730 1933
8 NB +08/+0820 1942 F 16
9 - +09 1945 S 12
8 - +08
Z Indian/Maldives 4:54 - LMT 1880
4:54 - MMT 1960
5 - +05
R X 1983 1984 - Ap 1 0 1 -
R X 1983 o - O 1 0 0 -
R X 1985 1998 - Mar lastSu 0 1 -
R X 1984 1998 - S lastSu 0 0 -
R X 2001 o - Ap lastSa 2 1 -
R X 2001 2006 - S lastSa 2 0 -
R X 2002 2006 - Mar lastSa 2 1 -
R X 2015 2016 - Mar lastSa 2 1 -
R X 2015 2016 - S lastSa 0 0 -
Z Asia/Hovd 6:6:36 - LMT 1905 Au
6 - +06 1978
7 X +07/+08
Z Asia/Ulaanbaatar 7:7:32 - LMT 1905 Au
7 - +07 1978
8 X +08/+09

Z Asia/Choibalsan 7:38 - LMT 1905 Au

7 - +07 1978

8 - +08 1983 Ap

9 X +09/+10 2008 Mar 31

8 X +08/+09

Z Asia/Kathmandu 5:41:16 - LMT 1920

5:30 - +0530 1986

5:45 - +0545

R PK 2002 o - Ap Su \geq 2 0 1 S

R PK 2002 o - O Su \geq 2 0 0 -

R PK 2008 o - Jun 1 0 1 S

R PK 2008 2009 - N 1 0 0 -

R PK 2009 o - Ap 15 0 1 S

Z Asia/Karachi 4:28:12 - LMT 1907

5:30 - +0530 1942 S

5:30 1 +0630 1945 O 15

5:30 - +0530 1951 S 30

5 - +05 1971 Mar 26

5 PK PK%*sT*

R P 1999 2005 - Ap F \geq 15 0 1 S

R P 1999 2003 - O F \geq 15 0 0 -

R P 2004 o - O 1 1 0 -

R P 2005 o - O 4 2 0 -

R P 2006 2007 - Ap 1 0 1 S

R P 2006 o - S 22 0 0 -

R P 2007 o - S Th \geq 8 2 0 -

R P 2008 2009 - Mar lastF 0 1 S

R P 2008 o - S 1 0 0 -

R P 2009 o - S F \geq 1 1 0 -

R P 2010 o - Mar 26 0 1 S

R P 2010 o - Au 11 0 0 -

R P 2011 o - Ap 1 0:1 1 S

R P 2011 o - Au 1 0 0 -

R P 2011 o - Au 30 0 1 S

R P 2011 o - S 30 0 0 -

R P 2012 2014 - Mar lastTh 24 1 S

R P 2012 o - S 21 1 0 -

R P 2013 o - S F \geq 21 0 0 -

R P 2014 2015 - O F \geq 21 0 0 -

R P 2015 o - Mar lastF 24 1 S

R P 2016 2018 - Mar Sa \geq 24 1 1 S

R P 2016 ma - O lastSa 1 0 -

R P 2019 ma - Mar lastF 0 1 S

Z Asia/Gaza 2:17:52 - LMT 1900 O

2 Z EET/EEST 1948 May 15

2 K EE%*sT* 1967 Jun 5

2 Z I%*sT* 1996

2 J EE%*sT* 1999

2 P EE%ST 2008 Au 29
2 - EET 2008 S
2 P EE%ST 2010
2 - EET 2010 Mar 27 0:1
2 P EE%ST 2011 Au
2 - EET 2012
2 P EE%ST
Z Asia/Hebron 2:20:23 - LMT 1900 O
2 Z EET/EEST 1948 May 15
2 K EE%ST 1967 Jun 5
2 Z I%ST 1996
2 J EE%ST 1999
2 P EE%ST
R PH 1936 o - N 1 0 1 D
R PH 1937 o - F 1 0 0 S
R PH 1954 o - Ap 12 0 1 D
R PH 1954 o - Jul 1 0 0 S
R PH 1978 o - Mar 22 0 1 D
R PH 1978 o - S 21 0 0 S
Z Asia/Manila -15:56 - LMT 1844 D 31
8:4 - LMT 1899 May 11
8 PH P%ST 1942 May
9 - JST 1944 N
8 PH P%ST
Z Asia/Qatar 3:26:8 - LMT 1920
4 - +04 1972 Jun
3 - +03
L Asia/Qatar Asia/Bahrain
Z Asia/Riyadh 3:6:52 - LMT 1947 Mar 14
3 - +03
L Asia/Riyadh Asia/Aden
L Asia/Riyadh Asia/Kuwait
Z Asia/Singapore 6:55:25 - LMT 1901
6:55:25 - SMT 1905 Jun
7 - +07 1933
7 0:20 +0720 1936
7:20 - +0720 1941 S
7:30 - +0730 1942 F 16
9 - +09 1945 S 12
7:30 - +0730 1982
8 - +08
Z Asia/Colombo 5:19:24 - LMT 1880
5:19:32 - MMT 1906
5:30 - +0530 1942 Ja 5
5:30 0:30 +06 1942 S
5:30 1 +0630 1945 O 16 2
5:30 - +0530 1996 May 25
6:30 - +0630 1996 O 26 0:30

6 - +06 2006 Ap 15 0:30
5:30 - +0530
R S 1920 1923 - Ap Su>=15 2 1 S
R S 1920 1923 - O Su>=1 2 0 -
R S 1962 o - Ap 29 2 1 S
R S 1962 o - O 1 2 0 -
R S 1963 1965 - May 1 2 1 S
R S 1963 o - S 30 2 0 -
R S 1964 o - O 1 2 0 -
R S 1965 o - S 30 2 0 -
R S 1966 o - Ap 24 2 1 S
R S 1966 1976 - O 1 2 0 -
R S 1967 1978 - May 1 2 1 S
R S 1977 1978 - S 1 2 0 -
R S 1983 1984 - Ap 9 2 1 S
R S 1983 1984 - O 1 2 0 -
R S 1986 o - F 16 2 1 S
R S 1986 o - O 9 2 0 -
R S 1987 o - Mar 1 2 1 S
R S 1987 1988 - O 31 2 0 -
R S 1988 o - Mar 15 2 1 S
R S 1989 o - Mar 31 2 1 S
R S 1989 o - O 1 2 0 -
R S 1990 o - Ap 1 2 1 S
R S 1990 o - S 30 2 0 -
R S 1991 o - Ap 1 0 1 S
R S 1991 1992 - O 1 0 0 -
R S 1992 o - Ap 8 0 1 S
R S 1993 o - Mar 26 0 1 S
R S 1993 o - S 25 0 0 -
R S 1994 1996 - Ap 1 0 1 S
R S 1994 2005 - O 1 0 0 -
R S 1997 1998 - Mar lastM 0 1 S
R S 1999 2006 - Ap 1 0 1 S
R S 2006 o - S 22 0 0 -
R S 2007 o - Mar lastF 0 1 S
R S 2007 o - N F>=1 0 0 -
R S 2008 o - Ap F>=1 0 1 S
R S 2008 o - N 1 0 0 -
R S 2009 o - Mar lastF 0 1 S
R S 2010 2011 - Ap F>=1 0 1 S
R S 2012 ma - Mar lastF 0 1 S
R S 2009 ma - O lastF 0 0 -
Z Asia/Damascus 2:25:12 - LMT 1920
2 S EE%sT
Z Asia/Dushanbe 4:35:12 - LMT 1924 May 2
5 - +05 1930 Jun 21
6 R +06/+07 1991 Mar 31 2s

5 1 +05/+06 1991 S 9 2s
5 - +05
Z Asia/Bangkok 6:42:4 - LMT 1880
6:42:4 - BMT 1920 Ap
7 - +07
L Asia/Bangkok Asia/Phnom_Penh
L Asia/Bangkok Asia/Vientiane
Z Asia/Ashgabat 3:53:32 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 R +05/+06 1991 Mar 31 2
4 R +04/+05 1992 Ja 19 2
5 - +05
Z Asia/Dubai 3:41:12 - LMT 1920
4 - +04
L Asia/Dubai Asia/Muscat
Z Asia/Samarkand 4:27:53 - LMT 1924 May 2
4 - +04 1930 Jun 21
5 - +05 1981 Ap
5 1 +06 1981 O
6 - +06 1982 Ap
5 R +05/+06 1992
5 - +05
Z Asia/Tashkent 4:37:11 - LMT 1924 May 2
5 - +05 1930 Jun 21
6 R +06/+07 1991 Mar 31 2
5 R +05/+06 1992
5 - +05
Z Asia/Ho_Chi_Minh 7:6:40 - LMT 1906 Jul
7:6:30 - PLMT 1911 May
7 - +07 1942 D 31 23
8 - +08 1945 Mar 14 23
9 - +09 1945 S 2
7 - +07 1947 Ap
8 - +08 1955 Jul
7 - +07 1959 D 31 23
8 - +08 1975 Jun 13
7 - +07
R AU 1917 o - Ja 1 0:1 1 D
R AU 1917 o - Mar 25 2 0 S
R AU 1942 o - Ja 1 2 1 D
R AU 1942 o - Mar 29 2 0 S
R AU 1942 o - S 27 2 1 D
R AU 1943 1944 - Mar lastSu 2 0 S
R AU 1943 o - O 3 2 1 D
Z Australia/Darwin 8:43:20 - LMT 1895 F
9 - ACST 1899 May
9:30 AU AC%sT
R AW 1974 o - O lastSu 2s 1 D

R AW 1975 o - Mar Su>=1 2s 0 S
R AW 1983 o - O lastSu 2s 1 D
R AW 1984 o - Mar Su>=1 2s 0 S
R AW 1991 o - N 17 2s 1 D
R AW 1992 o - Mar Su>=1 2s 0 S
R AW 2006 o - D 3 2s 1 D
R AW 2007 2009 - Mar lastSu 2s 0 S
R AW 2007 2008 - O lastSu 2s 1 D
Z Australia/Perth 7:43:24 - LMT 1895 D
8 AU AW%sT 1943 Jul
8 AW AW%sT
Z Australia/Eucla 8:35:28 - LMT 1895 D
8:45 AU +0845/+0945 1943 Jul
8:45 AW +0845/+0945
R AQ 1971 o - O lastSu 2s 1 D
R AQ 1972 o - F lastSu 2s 0 S
R AQ 1989 1991 - O lastSu 2s 1 D
R AQ 1990 1992 - Mar Su>=1 2s 0 S
R Ho 1992 1993 - O lastSu 2s 1 D
R Ho 1993 1994 - Mar Su>=1 2s 0 S
Z Australia/Brisbane 10:12:8 - LMT 1895
10 AU AE%sT 1971
10 AQ AE%sT
Z Australia/Lindeman 9:55:56 - LMT 1895
10 AU AE%sT 1971
10 AQ AE%sT 1992 Jul
10 Ho AE%sT
R AS 1971 1985 - O lastSu 2s 1 D
R AS 1986 o - O 19 2s 1 D
R AS 1987 2007 - O lastSu 2s 1 D
R AS 1972 o - F 27 2s 0 S
R AS 1973 1985 - Mar Su>=1 2s 0 S
R AS 1986 1990 - Mar Su>=15 2s 0 S
R AS 1991 o - Mar 3 2s 0 S
R AS 1992 o - Mar 22 2s 0 S
R AS 1993 o - Mar 7 2s 0 S
R AS 1994 o - Mar 20 2s 0 S
R AS 1995 2005 - Mar lastSu 2s 0 S
R AS 2006 o - Ap 2 2s 0 S
R AS 2007 o - Mar lastSu 2s 0 S
R AS 2008 ma - Ap Su>=1 2s 0 S
R AS 2008 ma - O Su>=1 2s 1 D
Z Australia/Adelaide 9:14:20 - LMT 1895 F
9 - ACST 1899 May
9:30 AU AC%sT 1971
9:30 AS AC%sT
R AT 1967 o - O Su>=1 2s 1 D
R AT 1968 o - Mar lastSu 2s 0 S

R AT 1968 1985 - O lastSu 2s 1 D
R AT 1969 1971 - Mar Su>=8 2s 0 S
R AT 1972 o - F lastSu 2s 0 S
R AT 1973 1981 - Mar Su>=1 2s 0 S
R AT 1982 1983 - Mar lastSu 2s 0 S
R AT 1984 1986 - Mar Su>=1 2s 0 S
R AT 1986 o - O Su>=15 2s 1 D
R AT 1987 1990 - Mar Su>=15 2s 0 S
R AT 1987 o - O Su>=22 2s 1 D
R AT 1988 1990 - O lastSu 2s 1 D
R AT 1991 1999 - O Su>=1 2s 1 D
R AT 1991 2005 - Mar lastSu 2s 0 S
R AT 2000 o - Au lastSu 2s 1 D
R AT 2001 ma - O Su>=1 2s 1 D
R AT 2006 o - Ap Su>=1 2s 0 S
R AT 2007 o - Mar lastSu 2s 0 S
R AT 2008 ma - Ap Su>=1 2s 0 S
Z Australia/Hobart 9:49:16 - LMT 1895 S
10 - AEST 1916 O 1 2
10 1 AEDT 1917 F
10 AU AE%sT 1967
10 AT AE%sT
Z Australia/Currie 9:35:28 - LMT 1895 S
10 - AEST 1916 O 1 2
10 1 AEDT 1917 F
10 AU AE%sT 1971 Jul
10 AT AE%sT
R AV 1971 1985 - O lastSu 2s 1 D
R AV 1972 o - F lastSu 2s 0 S
R AV 1973 1985 - Mar Su>=1 2s 0 S
R AV 1986 1990 - Mar Su>=15 2s 0 S
R AV 1986 1987 - O Su>=15 2s 1 D
R AV 1988 1999 - O lastSu 2s 1 D
R AV 1991 1994 - Mar Su>=1 2s 0 S
R AV 1995 2005 - Mar lastSu 2s 0 S
R AV 2000 o - Au lastSu 2s 1 D
R AV 2001 2007 - O lastSu 2s 1 D
R AV 2006 o - Ap Su>=1 2s 0 S
R AV 2007 o - Mar lastSu 2s 0 S
R AV 2008 ma - Ap Su>=1 2s 0 S
R AV 2008 ma - O Su>=1 2s 1 D
Z Australia/Melbourne 9:39:52 - LMT 1895 F
10 AU AE%sT 1971
10 AV AE%sT
R AN 1971 1985 - O lastSu 2s 1 D
R AN 1972 o - F 27 2s 0 S
R AN 1973 1981 - Mar Su>=1 2s 0 S
R AN 1982 o - Ap Su>=1 2s 0 S

R AN 1983 1985 - Mar Su>=1 2s 0 S
R AN 1986 1989 - Mar Su>=15 2s 0 S
R AN 1986 o - O 19 2s 1 D
R AN 1987 1999 - O lastSu 2s 1 D
R AN 1990 1995 - Mar Su>=1 2s 0 S
R AN 1996 2005 - Mar lastSu 2s 0 S
R AN 2000 o - Au lastSu 2s 1 D
R AN 2001 2007 - O lastSu 2s 1 D
R AN 2006 o - Ap Su>=1 2s 0 S
R AN 2007 o - Mar lastSu 2s 0 S
R AN 2008 ma - Ap Su>=1 2s 0 S
R AN 2008 ma - O Su>=1 2s 1 D
Z Australia/Sydney 10:4:52 - LMT 1895 F
10 AU AE%sT 1971
10 AN AE%sT
Z Australia/Broken_Hill 9:25:48 - LMT 1895 F
10 - AEST 1896 Au 23
9 - ACST 1899 May
9:30 AU AC%sT 1971
9:30 AN AC%sT 2000
9:30 AS AC%sT
R LH 1981 1984 - O lastSu 2 1 -
R LH 1982 1985 - Mar Su>=1 2 0 -
R LH 1985 o - O lastSu 2 0:30 -
R LH 1986 1989 - Mar Su>=15 2 0 -
R LH 1986 o - O 19 2 0:30 -
R LH 1987 1999 - O lastSu 2 0:30 -
R LH 1990 1995 - Mar Su>=1 2 0 -
R LH 1996 2005 - Mar lastSu 2 0 -
R LH 2000 o - Au lastSu 2 0:30 -
R LH 2001 2007 - O lastSu 2 0:30 -
R LH 2006 o - Ap Su>=1 2 0 -
R LH 2007 o - Mar lastSu 2 0 -
R LH 2008 ma - Ap Su>=1 2 0 -
R LH 2008 ma - O Su>=1 2 0:30 -
Z Australia/Lord_Howe 10:36:20 - LMT 1895 F
10 - AEST 1981 Mar
10:30 LH +1030/+1130 1985 Jul
10:30 LH +1030/+11
Z Antarctica/Macquarie 0 - -00 1899 N
10 - AEST 1916 O 1 2
10 1 AEDT 1917 F
10 AU AE%sT 1919 Ap 1 0s
0 - -00 1948 Mar 25
10 AU AE%sT 1967
10 AT AE%sT 2010 Ap 4 3
11 - +11
Z Indian/Christmas 7:2:52 - LMT 1895 F

7 - +07
Z Indian/Cocos 6:27:40 - LMT 1900
6:30 - +0630
R FJ 1998 1999 - N Su>=1 2 1 -
R FJ 1999 2000 - F lastSu 3 0 -
R FJ 2009 o - N 29 2 1 -
R FJ 2010 o - Mar lastSu 3 0 -
R FJ 2010 2013 - O Su>=21 2 1 -
R FJ 2011 o - Mar Su>=1 3 0 -
R FJ 2012 2013 - Ja Su>=18 3 0 -
R FJ 2014 o - Ja Su>=18 2 0 -
R FJ 2014 ma - N Su>=1 2 1 -
R FJ 2015 ma - Ja Su>=13 3 0 -
Z Pacific/Fiji 11:55:44 - LMT 1915 O 26
12 FJ +12/+13
Z Pacific/Gambier -8:59:48 - LMT 1912 O
-9 - -09
Z Pacific/Marquesas -9:18 - LMT 1912 O
-9:30 - -0930
Z Pacific/Tahiti -9:58:16 - LMT 1912 O
-10 - -10
R Gu 1959 o - Jun 27 2 1 D
R Gu 1961 o - Ja 29 2 0 S
R Gu 1967 o - S 1 2 1 D
R Gu 1969 o - Ja 26 0:1 0 S
R Gu 1969 o - Jun 22 2 1 D
R Gu 1969 o - Au 31 2 0 S
R Gu 1970 1971 - Ap lastSu 2 1 D
R Gu 1970 1971 - S Su>=1 2 0 S
R Gu 1973 o - D 16 2 1 D
R Gu 1974 o - F 24 2 0 S
R Gu 1976 o - May 26 2 1 D
R Gu 1976 o - Au 22 2:1 0 S
R Gu 1977 o - Ap 24 2 1 D
R Gu 1977 o - Au 28 2 0 S
Z Pacific/Guam -14:21 - LMT 1844 D 31
9:39 - LMT 1901
10 - GST 1941 D 10
9 - +09 1944 Jul 31
10 Gu G%ST 2000 D 23
10 - ChST
L Pacific/Guam Pacific/Saipan
Z Pacific/Tarawa 11:32:4 - LMT 1901
12 - +12
Z Pacific/Enderbury -11:24:20 - LMT 1901
-12 - -12 1979 O
-11 - -11 1994 D 31
13 - +13

Z Pacific/Kiritimati -10:29:20 - LMT 1901

-10:40 - -1040 1979 O

-10 - -10 1994 D 31

14 - +14

Z Pacific/Majuro 11:24:48 - LMT 1901

11 - +11 1914 O

9 - +09 1919 F

11 - +11 1937

10 - +10 1941 Ap

9 - +09 1944 Ja 30

11 - +11 1969 O

12 - +12

Z Pacific/Kwajalein 11:9:20 - LMT 1901

11 - +11 1937

10 - +10 1941 Ap

9 - +09 1944 F 6

11 - +11 1969 O

-12 - -12 1993 Au 20 24

12 - +12

Z Pacific/Chuuk -13:52:52 - LMT 1844 D 31

10:7:8 - LMT 1901

10 - +10 1914 O

9 - +09 1919 F

10 - +10 1941 Ap

9 - +09 1945 Au

10 - +10

Z Pacific/Pohnpei -13:27:8 - LMT 1844 D 31

10:32:52 - LMT 1901

11 - +11 1914 O

9 - +09 1919 F

11 - +11 1937

10 - +10 1941 Ap

9 - +09 1945 Au

11 - +11

Z Pacific/Kosrae -13:8:4 - LMT 1844 D 31

10:51:56 - LMT 1901

11 - +11 1914 O

9 - +09 1919 F

11 - +11 1937

10 - +10 1941 Ap

9 - +09 1945 Au

11 - +11 1969 O

12 - +12 1999

11 - +11

Z Pacific/Nauru 11:7:40 - LMT 1921 Ja 15

11:30 - +1130 1942 Au 29

9 - +09 1945 S 8

11:30 - +1130 1979 F 10 2

12 - +12
 R NC 1977 1978 - D Su>=1 0 1 -
 R NC 1978 1979 - F 27 0 0 -
 R NC 1996 o - D 1 2s 1 -
 R NC 1997 o - Mar 2 2s 0 -
 Z Pacific/Noumea 11:5:48 - LMT 1912 Ja 13
 11 NC +11/+12
 R NZ 1927 o - N 6 2 1 S
 R NZ 1928 o - Mar 4 2 0 M
 R NZ 1928 1933 - O Su>=8 2 0:30 S
 R NZ 1929 1933 - Mar Su>=15 2 0 M
 R NZ 1934 1940 - Ap lastSu 2 0 M
 R NZ 1934 1940 - S lastSu 2 0:30 S
 R NZ 1946 o - Ja 1 0 0 S
 R NZ 1974 o - N Su>=1 2s 1 D
 R k 1974 o - N Su>=1 2:45s 1 -
 R NZ 1975 o - F lastSu 2s 0 S
 R k 1975 o - F lastSu 2:45s 0 -
 R NZ 1975 1988 - O lastSu 2s 1 D
 R k 1975 1988 - O lastSu 2:45s 1 -
 R NZ 1976 1989 - Mar Su>=1 2s 0 S
 R k 1976 1989 - Mar Su>=1 2:45s 0 -
 R NZ 1989 o - O Su>=8 2s 1 D
 R k 1989 o - O Su>=8 2:45s 1 -
 R NZ 1990 2006 - O Su>=1 2s 1 D
 R k 1990 2006 - O Su>=1 2:45s 1 -
 R NZ 1990 2007 - Mar Su>=15 2s 0 S
 R k 1990 2007 - Mar Su>=15 2:45s 0 -
 R NZ 2007 ma - S lastSu 2s 1 D
 R k 2007 ma - S lastSu 2:45s 1 -
 R NZ 2008 ma - Ap Su>=1 2s 0 S
 R k 2008 ma - Ap Su>=1 2:45s 0 -
 Z Pacific/Auckland 11:39:4 - LMT 1868 N 2
 11:30 NZ NZ%sT 1946
 12 NZ NZ%sT
 Z Pacific/Chatham 12:13:48 - LMT 1868 N 2
 12:15 - +1215 1946
 12:45 k +1245/+1345
 L Pacific/Auckland Antarctica/McMurdo
 R CK 1978 o - N 12 0 0:30 -
 R CK 1979 1991 - Mar Su>=1 0 0 -
 R CK 1979 1990 - O lastSu 0 0:30 -
 Z Pacific/Rarotonga -10:39:4 - LMT 1901
 -10:30 - -1030 1978 N 12
 -10 CK -10/-0930
 Z Pacific/Niue -11:19:40 - LMT 1901
 -11:20 - -1120 1951
 -11:30 - -1130 1978 O

-11 - -11
Z Pacific/Norfolk 11:11:52 - LMT 1901
11:12 - +1112 1951
11:30 - +1130 1974 O 27 2
11:30 1 +1230 1975 Mar 2 2
11:30 - +1130 2015 O 4 2
11 - +11
Z Pacific/Palau -15:2:4 - LMT 1844 D 31
8:57:56 - LMT 1901
9 - +09
Z Pacific/Port_Moresby 9:48:40 - LMT 1880
9:48:32 - PMMT 1895
10 - +10
Z Pacific/Bougainville 10:22:16 - LMT 1880
9:48:32 - PMMT 1895
10 - +10 1942 Jul
9 - +09 1945 Au 21
10 - +10 2014 D 28 2
11 - +11
Z Pacific/Pitcairn -8:40:20 - LMT 1901
-8:30 - -0830 1998 Ap 27
-8 - -08
Z Pacific/Pago_Pago 12:37:12 - LMT 1892 Jul 5
-11:22:48 - LMT 1911
-11 - SST
L Pacific/Pago_Pago Pacific/Midway
R WS 2010 o - S lastSu 0 1 -
R WS 2011 o - Ap Sa>=1 4 0 -
R WS 2011 o - S lastSa 3 1 -
R WS 2012 ma - Ap Su>=1 4 0 -
R WS 2012 ma - S lastSu 3 1 -
Z Pacific/Apia 12:33:4 - LMT 1892 Jul 5
-11:26:56 - LMT 1911
-11:30 - -1130 1950
-11 WS -11/-10 2011 D 29 24
13 WS +13/+14
Z Pacific/Guadalcanal 10:39:48 - LMT 1912 O
11 - +11
Z Pacific/Fakaofu -11:24:56 - LMT 1901
-11 - -11 2011 D 30
13 - +13
R TO 1999 o - O 7 2s 1 -
R TO 2000 o - Mar 19 2s 0 -
R TO 2000 2001 - N Su>=1 2 1 -
R TO 2001 2002 - Ja lastSu 2 0 -
R TO 2016 o - N Su>=1 2 1 -
R TO 2017 o - Ja Su>=15 3 0 -
Z Pacific/Tongatapu 12:19:20 - LMT 1901

12:20 - +1220 1941
13 - +13 1999
13 TO +13/+14
Z Pacific/Funafuti 11:56:52 - LMT 1901
12 - +12
Z Pacific/Wake 11:6:28 - LMT 1901
12 - +12
R VU 1983 o - S 25 0 1 -
R VU 1984 1991 - Mar Su>=23 0 0 -
R VU 1984 o - O 23 0 1 -
R VU 1985 1991 - S Su>=23 0 1 -
R VU 1992 1993 - Ja Su>=23 0 0 -
R VU 1992 o - O Su>=23 0 1 -
Z Pacific/Efate 11:13:16 - LMT 1912 Ja 13
11 VU +11/+12
Z Pacific/Wallis 12:15:20 - LMT 1901
12 - +12
R G 1916 o - May 21 2s 1 BST
R G 1916 o - O 1 2s 0 GMT
R G 1917 o - Ap 8 2s 1 BST
R G 1917 o - S 17 2s 0 GMT
R G 1918 o - Mar 24 2s 1 BST
R G 1918 o - S 30 2s 0 GMT
R G 1919 o - Mar 30 2s 1 BST
R G 1919 o - S 29 2s 0 GMT
R G 1920 o - Mar 28 2s 1 BST
R G 1920 o - O 25 2s 0 GMT
R G 1921 o - Ap 3 2s 1 BST
R G 1921 o - O 3 2s 0 GMT
R G 1922 o - Mar 26 2s 1 BST
R G 1922 o - O 8 2s 0 GMT
R G 1923 o - Ap Su>=16 2s 1 BST
R G 1923 1924 - S Su>=16 2s 0 GMT
R G 1924 o - Ap Su>=9 2s 1 BST
R G 1925 1926 - Ap Su>=16 2s 1 BST
R G 1925 1938 - O Su>=2 2s 0 GMT
R G 1927 o - Ap Su>=9 2s 1 BST
R G 1928 1929 - Ap Su>=16 2s 1 BST
R G 1930 o - Ap Su>=9 2s 1 BST
R G 1931 1932 - Ap Su>=16 2s 1 BST
R G 1933 o - Ap Su>=9 2s 1 BST
R G 1934 o - Ap Su>=16 2s 1 BST
R G 1935 o - Ap Su>=9 2s 1 BST
R G 1936 1937 - Ap Su>=16 2s 1 BST
R G 1938 o - Ap Su>=9 2s 1 BST
R G 1939 o - Ap Su>=16 2s 1 BST
R G 1939 o - N Su>=16 2s 0 GMT
R G 1940 o - F Su>=23 2s 1 BST

R G 1941 o - May Su>=2 1s 2 BDST
R G 1941 1943 - Au Su>=9 1s 1 BST
R G 1942 1944 - Ap Su>=2 1s 2 BDST
R G 1944 o - S Su>=16 1s 1 BST
R G 1945 o - Ap M>=2 1s 2 BDST
R G 1945 o - Jul Su>=9 1s 1 BST
R G 1945 1946 - O Su>=2 2s 0 GMT
R G 1946 o - Ap Su>=9 2s 1 BST
R G 1947 o - Mar 16 2s 1 BST
R G 1947 o - Ap 13 1s 2 BDST
R G 1947 o - Au 10 1s 1 BST
R G 1947 o - N 2 2s 0 GMT
R G 1948 o - Mar 14 2s 1 BST
R G 1948 o - O 31 2s 0 GMT
R G 1949 o - Ap 3 2s 1 BST
R G 1949 o - O 30 2s 0 GMT
R G 1950 1952 - Ap Su>=14 2s 1 BST
R G 1950 1952 - O Su>=21 2s 0 GMT
R G 1953 o - Ap Su>=16 2s 1 BST
R G 1953 1960 - O Su>=2 2s 0 GMT
R G 1954 o - Ap Su>=9 2s 1 BST
R G 1955 1956 - Ap Su>=16 2s 1 BST
R G 1957 o - Ap Su>=9 2s 1 BST
R G 1958 1959 - Ap Su>=16 2s 1 BST
R G 1960 o - Ap Su>=9 2s 1 BST
R G 1961 1963 - Mar lastSu 2s 1 BST
R G 1961 1968 - O Su>=23 2s 0 GMT
R G 1964 1967 - Mar Su>=19 2s 1 BST
R G 1968 o - F 18 2s 1 BST
R G 1972 1980 - Mar Su>=16 2s 1 BST
R G 1972 1980 - O Su>=23 2s 0 GMT
R G 1981 1995 - Mar lastSu 1u 1 BST
R G 1981 1989 - O Su>=23 1u 0 GMT
R G 1990 1995 - O Su>=22 1u 0 GMT
Z Europe/London -0:1:15 - LMT 1847 D 1 0s
0 G %s 1968 O 27
1 - BST 1971 O 31 2u
0 G %s 1996
0 E GMT/BST
L Europe/London Europe/Jersey
L Europe/London Europe/Guernsey
L Europe/London Europe/Isle_of_Man
R IE 1971 o - O 31 2u -1 -
R IE 1972 1980 - Mar Su>=16 2u 0 -
R IE 1972 1980 - O Su>=23 2u -1 -
R IE 1981 ma - Mar lastSu 1u 0 -
R IE 1981 1989 - O Su>=23 1u -1 -
R IE 1990 1995 - O Su>=22 1u -1 -

R IE 1996 ma - O lastSu 1u -1 -
Z Europe/Dublin -0:25 - LMT 1880 Au 2
-0:25:21 - DMT 1916 May 21 2s
-0:25:21 1 IST 1916 O 1 2s
0 G %s 1921 D 6
0 G GMT/IST 1940 F 25 2s
0 1 IST 1946 O 6 2s
0 - GMT 1947 Mar 16 2s
0 1 IST 1947 N 2 2s
0 - GMT 1948 Ap 18 2s
0 G GMT/IST 1968 O 27
1 IE IST/GMT
R E 1977 1980 - Ap Su>=1 1u 1 S
R E 1977 o - S lastSu 1u 0 -
R E 1978 o - O 1 1u 0 -
R E 1979 1995 - S lastSu 1u 0 -
R E 1981 ma - Mar lastSu 1u 1 S
R E 1996 ma - O lastSu 1u 0 -
R W- 1977 1980 - Ap Su>=1 1s 1 S
R W- 1977 o - S lastSu 1s 0 -
R W- 1978 o - O 1 1s 0 -
R W- 1979 1995 - S lastSu 1s 0 -
R W- 1981 ma - Mar lastSu 1s 1 S
R W- 1996 ma - O lastSu 1s 0 -
R c 1916 o - Ap 30 23 1 S
R c 1916 o - O 1 1 0 -
R c 1917 1918 - Ap M>=15 2s 1 S
R c 1917 1918 - S M>=15 2s 0 -
R c 1940 o - Ap 1 2s 1 S
R c 1942 o - N 2 2s 0 -
R c 1943 o - Mar 29 2s 1 S
R c 1943 o - O 4 2s 0 -
R c 1944 1945 - Ap M>=1 2s 1 S
R c 1944 o - O 2 2s 0 -
R c 1945 o - S 16 2s 0 -
R c 1977 1980 - Ap Su>=1 2s 1 S
R c 1977 o - S lastSu 2s 0 -
R c 1978 o - O 1 2s 0 -
R c 1979 1995 - S lastSu 2s 0 -
R c 1981 ma - Mar lastSu 2s 1 S
R c 1996 ma - O lastSu 2s 0 -
R e 1977 1980 - Ap Su>=1 0 1 S
R e 1977 o - S lastSu 0 0 -
R e 1978 o - O 1 0 0 -
R e 1979 1995 - S lastSu 0 0 -
R e 1981 ma - Mar lastSu 0 1 S
R e 1996 ma - O lastSu 0 0 -
R R 1917 o - Jul 1 23 1 MST

R R 1917 o - D 28 0 0 MMT
R R 1918 o - May 31 22 2 MDST
R R 1918 o - S 16 1 1 MST
R R 1919 o - May 31 23 2 MDST
R R 1919 o - Jul 1 0u 1 MSD
R R 1919 o - Au 16 0 0 MSK
R R 1921 o - F 14 23 1 MSD
R R 1921 o - Mar 20 23 2 +05
R R 1921 o - S 1 0 1 MSD
R R 1921 o - O 1 0 0 -
R R 1981 1984 - Ap 1 0 1 S
R R 1981 1983 - O 1 0 0 -
R R 1984 1995 - S lastSu 2s 0 -
R R 1985 2010 - Mar lastSu 2s 1 S
R R 1996 2010 - O lastSu 2s 0 -
Z WET 0 E WE%ST
Z CET 1 c CE%ST
Z MET 1 c ME%ST
Z EET 2 E EE%ST
R q 1940 o - Jun 16 0 1 S
R q 1942 o - N 2 3 0 -
R q 1943 o - Mar 29 2 1 S
R q 1943 o - Ap 10 3 0 -
R q 1974 o - May 4 0 1 S
R q 1974 o - O 2 0 0 -
R q 1975 o - May 1 0 1 S
R q 1975 o - O 2 0 0 -
R q 1976 o - May 2 0 1 S
R q 1976 o - O 3 0 0 -
R q 1977 o - May 8 0 1 S
R q 1977 o - O 2 0 0 -
R q 1978 o - May 6 0 1 S
R q 1978 o - O 1 0 0 -
R q 1979 o - May 5 0 1 S
R q 1979 o - S 30 0 0 -
R q 1980 o - May 3 0 1 S
R q 1980 o - O 4 0 0 -
R q 1981 o - Ap 26 0 1 S
R q 1981 o - S 27 0 0 -
R q 1982 o - May 2 0 1 S
R q 1982 o - O 3 0 0 -
R q 1983 o - Ap 18 0 1 S
R q 1983 o - O 1 0 0 -
R q 1984 o - Ap 1 0 1 S
Z Europe/Tirane 1:19:20 - LMT 1914
1 - CET 1940 Jun 16
1 q CE%ST 1984 Jul
1 E CE%ST

Z Europe/Andorra 0:6:4 - LMT 1901

0 - WET 1946 S 30

1 - CET 1985 Mar 31 2

1 E CE%ST

R a 1920 o - Ap 5 2s 1 S

R a 1920 o - S 13 2s 0 -

R a 1946 o - Ap 14 2s 1 S

R a 1946 1948 - O Su>=1 2s 0 -

R a 1947 o - Ap 6 2s 1 S

R a 1948 o - Ap 18 2s 1 S

R a 1980 o - Ap 6 0 1 S

R a 1980 o - S 28 0 0 -

Z Europe/Vienna 1:5:21 - LMT 1893 Ap

1 c CE%ST 1920

1 a CE%ST 1940 Ap 1 2s

1 c CE%ST 1945 Ap 2 2s

1 1 CEST 1945 Ap 12 2s

1 - CET 1946

1 a CE%ST 1981

1 E CE%ST

Z Europe/Minsk 1:50:16 - LMT 1880

1:50 - MMT 1924 May 2

2 - EET 1930 Jun 21

3 - MSK 1941 Jun 28

1 c CE%ST 1944 Jul 3

3 R MSK/MSD 1990

3 - MSK 1991 Mar 31 2s

2 R EE%ST 2011 Mar 27 2s

3 - +03

R b 1918 o - Mar 9 0s 1 S

R b 1918 1919 - O Sa>=1 23s 0 -

R b 1919 o - Mar 1 23s 1 S

R b 1920 o - F 14 23s 1 S

R b 1920 o - O 23 23s 0 -

R b 1921 o - Mar 14 23s 1 S

R b 1921 o - O 25 23s 0 -

R b 1922 o - Mar 25 23s 1 S

R b 1922 1927 - O Sa>=1 23s 0 -

R b 1923 o - Ap 21 23s 1 S

R b 1924 o - Mar 29 23s 1 S

R b 1925 o - Ap 4 23s 1 S

R b 1926 o - Ap 17 23s 1 S

R b 1927 o - Ap 9 23s 1 S

R b 1928 o - Ap 14 23s 1 S

R b 1928 1938 - O Su>=2 2s 0 -

R b 1929 o - Ap 21 2s 1 S

R b 1930 o - Ap 13 2s 1 S

R b 1931 o - Ap 19 2s 1 S

R b 1932 o - Ap 3 2s 1 S
R b 1933 o - Mar 26 2s 1 S
R b 1934 o - Ap 8 2s 1 S
R b 1935 o - Mar 31 2s 1 S
R b 1936 o - Ap 19 2s 1 S
R b 1937 o - Ap 4 2s 1 S
R b 1938 o - Mar 27 2s 1 S
R b 1939 o - Ap 16 2s 1 S
R b 1939 o - N 19 2s 0 -
R b 1940 o - F 25 2s 1 S
R b 1944 o - S 17 2s 0 -
R b 1945 o - Ap 2 2s 1 S
R b 1945 o - S 16 2s 0 -
R b 1946 o - May 19 2s 1 S
R b 1946 o - O 7 2s 0 -
Z Europe/Brussels 0:17:30 - LMT 1880
0:17:30 - BMT 1892 May 1 12
0 - WET 1914 N 8
1 - CET 1916 May
1 c CE%ST 1918 N 11 11u
0 b WE%ST 1940 May 20 2s
1 c CE%ST 1944 S 3
1 b CE%ST 1977
1 E CE%ST
R BG 1979 o - Mar 31 23 1 S
R BG 1979 o - O 1 1 0 -
R BG 1980 1982 - Ap Sa>=1 23 1 S
R BG 1980 o - S 29 1 0 -
R BG 1981 o - S 27 2 0 -
Z Europe/Sofia 1:33:16 - LMT 1880
1:56:56 - IMT 1894 N 30
2 - EET 1942 N 2 3
1 c CE%ST 1945
1 - CET 1945 Ap 2 3
2 - EET 1979 Mar 31 23
2 BG EE%ST 1982 S 26 3
2 c EE%ST 1991
2 e EE%ST 1997
2 E EE%ST
R CZ 1945 o - Ap M>=1 2s 1 S
R CZ 1945 o - O 1 2s 0 -
R CZ 1946 o - May 6 2s 1 S
R CZ 1946 1949 - O Su>=1 2s 0 -
R CZ 1947 1948 - Ap Su>=15 2s 1 S
R CZ 1949 o - Ap 9 2s 1 S
Z Europe/Prague 0:57:44 - LMT 1850
0:57:44 - PMT 1891 O
1 c CE%ST 1945 May 9

1 CZ CE%ST 1946 D 1 3
1 -1 GMT 1947 F 23 2
1 CZ CE%ST 1979
1 E CE%ST
R D 1916 o - May 14 23 1 S
R D 1916 o - S 30 23 0 -
R D 1940 o - May 15 0 1 S
R D 1945 o - Ap 2 2s 1 S
R D 1945 o - Au 15 2s 0 -
R D 1946 o - May 1 2s 1 S
R D 1946 o - S 1 2s 0 -
R D 1947 o - May 4 2s 1 S
R D 1947 o - Au 10 2s 0 -
R D 1948 o - May 9 2s 1 S
R D 1948 o - Au 8 2s 0 -
Z Europe/Copenhagen 0:50:20 - LMT 1890
0:50:20 - CMT 1894
1 D CE%ST 1942 N 2 2s
1 c CE%ST 1945 Ap 2 2
1 D CE%ST 1980
1 E CE%ST
Z Atlantic/Faroe -0:27:4 - LMT 1908 Ja 11
0 - WET 1981
0 E WE%ST
R Th 1991 1992 - Mar lastSu 2 1 D
R Th 1991 1992 - S lastSu 2 0 S
R Th 1993 2006 - Ap Su>=1 2 1 D
R Th 1993 2006 - O lastSu 2 0 S
R Th 2007 ma - Mar Su>=8 2 1 D
R Th 2007 ma - N Su>=1 2 0 S
Z America/Danmarkshavn -1:14:40 - LMT 1916 Jul 28
-3 - -03 1980 Ap 6 2
-3 E -03/-02 1996
0 - GMT
Z America/Scoresbysund -1:27:52 - LMT 1916 Jul 28
-2 - -02 1980 Ap 6 2
-2 c -02/-01 1981 Mar 29
-1 E -01/+00
Z America/Godthab -3:26:56 - LMT 1916 Jul 28
-3 - -03 1980 Ap 6 2
-3 E -03/-02
Z America/Thule -4:35:8 - LMT 1916 Jul 28
-4 Th A%ST
Z Europe/Tallinn 1:39 - LMT 1880
1:39 - TMT 1918 F
1 c CE%ST 1919 Jul
1:39 - TMT 1921 May
2 - EET 1940 Au 6

3 - MSK 1941 S 15
1 c CE%ST 1944 S 22
3 R MSK/MSD 1989 Mar 26 2s
2 1 EEST 1989 S 24 2s
2 c EE%ST 1998 S 22
2 E EE%ST 1999 O 31 4
2 - EET 2002 F 21
2 E EE%ST
R FI 1942 o - Ap 2 24 1 S
R FI 1942 o - O 4 1 0 -
R FI 1981 1982 - Mar lastSu 2 1 S
R FI 1981 1982 - S lastSu 3 0 -
Z Europe/Helsinki 1:39:49 - LMT 1878 May 31
1:39:49 - HMT 1921 May
2 FI EE%ST 1983
2 E EE%ST
L Europe/Helsinki Europe/Mariehamn
R F 1916 o - Jun 14 23s 1 S
R F 1916 1919 - O Su>=1 23s 0 -
R F 1917 o - Mar 24 23s 1 S
R F 1918 o - Mar 9 23s 1 S
R F 1919 o - Mar 1 23s 1 S
R F 1920 o - F 14 23s 1 S
R F 1920 o - O 23 23s 0 -
R F 1921 o - Mar 14 23s 1 S
R F 1921 o - O 25 23s 0 -
R F 1922 o - Mar 25 23s 1 S
R F 1922 1938 - O Sa>=1 23s 0 -
R F 1923 o - May 26 23s 1 S
R F 1924 o - Mar 29 23s 1 S
R F 1925 o - Ap 4 23s 1 S
R F 1926 o - Ap 17 23s 1 S
R F 1927 o - Ap 9 23s 1 S
R F 1928 o - Ap 14 23s 1 S
R F 1929 o - Ap 20 23s 1 S
R F 1930 o - Ap 12 23s 1 S
R F 1931 o - Ap 18 23s 1 S
R F 1932 o - Ap 2 23s 1 S
R F 1933 o - Mar 25 23s 1 S
R F 1934 o - Ap 7 23s 1 S
R F 1935 o - Mar 30 23s 1 S
R F 1936 o - Ap 18 23s 1 S
R F 1937 o - Ap 3 23s 1 S
R F 1938 o - Mar 26 23s 1 S
R F 1939 o - Ap 15 23s 1 S
R F 1939 o - N 18 23s 0 -
R F 1940 o - F 25 2 1 S
R F 1941 o - May 5 0 2 M

R F 1941 o - O 6 0 1 S
R F 1942 o - Mar 9 0 2 M
R F 1942 o - N 2 3 1 S
R F 1943 o - Mar 29 2 2 M
R F 1943 o - O 4 3 1 S
R F 1944 o - Ap 3 2 2 M
R F 1944 o - O 8 1 1 S
R F 1945 o - Ap 2 2 2 M
R F 1945 o - S 16 3 0 -
R F 1976 o - Mar 28 1 1 S
R F 1976 o - S 26 1 0 -
Z Europe/Paris 0:9:21 - LMT 1891 Mar 15 0:1
0:9:21 - PMT 1911 Mar 11 0:1
0 F WE%ST 1940 Jun 14 23
1 c CE%ST 1944 Au 25
0 F WE%ST 1945 S 16 3
1 F CE%ST 1977
1 E CE%ST
R DE 1946 o - Ap 14 2s 1 S
R DE 1946 o - O 7 2s 0 -
R DE 1947 1949 - O Su>=1 2s 0 -
R DE 1947 o - Ap 6 3s 1 S
R DE 1947 o - May 11 2s 2 M
R DE 1947 o - Jun 29 3 1 S
R DE 1948 o - Ap 18 2s 1 S
R DE 1949 o - Ap 10 2s 1 S
R So 1945 o - May 24 2 2 M
R So 1945 o - S 24 3 1 S
R So 1945 o - N 18 2s 0 -
Z Europe/Berlin 0:53:28 - LMT 1893 Ap
1 c CE%ST 1945 May 24 2
1 So CE%ST 1946
1 DE CE%ST 1980
1 E CE%ST
L Europe/Zurich Europe/Busingen
Z Europe/Gibraltar -0:21:24 - LMT 1880 Au 2 0s
0 G %s 1957 Ap 14 2
1 - CET 1982
1 E CE%ST
R g 1932 o - Jul 7 0 1 S
R g 1932 o - S 1 0 0 -
R g 1941 o - Ap 7 0 1 S
R g 1942 o - N 2 3 0 -
R g 1943 o - Mar 30 0 1 S
R g 1943 o - O 4 0 0 -
R g 1952 o - Jul 1 0 1 S
R g 1952 o - N 2 0 0 -
R g 1975 o - Ap 12 0s 1 S

R g 1975 o - N 26 0s 0 -
R g 1976 o - Ap 11 2s 1 S
R g 1976 o - O 10 2s 0 -
R g 1977 1978 - Ap Su>=1 2s 1 S
R g 1977 o - S 26 2s 0 -
R g 1978 o - S 24 4 0 -
R g 1979 o - Ap 1 9 1 S
R g 1979 o - S 29 2 0 -
R g 1980 o - Ap 1 0 1 S
R g 1980 o - S 28 0 0 -
Z Europe/Athens 1:34:52 - LMT 1895 S 14
1:34:52 - AMT 1916 Jul 28 0:1
2 g EE%sT 1941 Ap 30
1 g CE%sT 1944 Ap 4
2 g EE%sT 1981
2 E EE%sT
R h 1918 o - Ap 1 3 1 S
R h 1918 o - S 16 3 0 -
R h 1919 o - Ap 15 3 1 S
R h 1919 o - N 24 3 0 -
R h 1945 o - May 1 23 1 S
R h 1945 o - N 1 0 0 -
R h 1946 o - Mar 31 2s 1 S
R h 1946 1949 - O Su>=1 2s 0 -
R h 1947 1949 - Ap Su>=4 2s 1 S
R h 1950 o - Ap 17 2s 1 S
R h 1950 o - O 23 2s 0 -
R h 1954 1955 - May 23 0 1 S
R h 1954 1955 - O 3 0 0 -
R h 1956 o - Jun Su>=1 0 1 S
R h 1956 o - S lastSu 0 0 -
R h 1957 o - Jun Su>=1 1 1 S
R h 1957 o - S lastSu 3 0 -
R h 1980 o - Ap 6 1 1 S
Z Europe/Budapest 1:16:20 - LMT 1890 O
1 c CE%sT 1918
1 h CE%sT 1941 Ap 8
1 c CE%sT 1945
1 h CE%sT 1980 S 28 2s
1 E CE%sT
R w 1917 1919 - F 19 23 1 -
R w 1917 o - O 21 1 0 -
R w 1918 1919 - N 16 1 0 -
R w 1921 o - Mar 19 23 1 -
R w 1921 o - Jun 23 1 0 -
R w 1939 o - Ap 29 23 1 -
R w 1939 o - O 29 2 0 -
R w 1940 o - F 25 2 1 -

R w 1940 1941 - N Su>=2 1s 0 -
R w 1941 1942 - Mar Su>=2 1s 1 -
R w 1943 1946 - Mar Su>=1 1s 1 -
R w 1942 1948 - O Su>=22 1s 0 -
R w 1947 1967 - Ap Su>=1 1s 1 -
R w 1949 o - O 30 1s 0 -
R w 1950 1966 - O Su>=22 1s 0 -
R w 1967 o - O 29 1s 0 -
Z Atlantic/Reykjavik -1:28 - LMT 1908
-1 w -01/+00 1968 Ap 7 1s
0 - GMT
R I 1916 o - Jun 3 24 1 S
R I 1916 1917 - S 30 24 0 -
R I 1917 o - Mar 31 24 1 S
R I 1918 o - Mar 9 24 1 S
R I 1918 o - O 6 24 0 -
R I 1919 o - Mar 1 24 1 S
R I 1919 o - O 4 24 0 -
R I 1920 o - Mar 20 24 1 S
R I 1920 o - S 18 24 0 -
R I 1940 o - Jun 14 24 1 S
R I 1942 o - N 2 2s 0 -
R I 1943 o - Mar 29 2s 1 S
R I 1943 o - O 4 2s 0 -
R I 1944 o - Ap 2 2s 1 S
R I 1944 o - S 17 2s 0 -
R I 1945 o - Ap 2 2 1 S
R I 1945 o - S 15 1 0 -
R I 1946 o - Mar 17 2s 1 S
R I 1946 o - O 6 2s 0 -
R I 1947 o - Mar 16 0s 1 S
R I 1947 o - O 5 0s 0 -
R I 1948 o - F 29 2s 1 S
R I 1948 o - O 3 2s 0 -
R I 1966 1968 - May Su>=22 0s 1 S
R I 1966 o - S 24 24 0 -
R I 1967 1969 - S Su>=22 0s 0 -
R I 1969 o - Jun 1 0s 1 S
R I 1970 o - May 31 0s 1 S
R I 1970 o - S lastSu 0s 0 -
R I 1971 1972 - May Su>=22 0s 1 S
R I 1971 o - S lastSu 0s 0 -
R I 1972 o - O 1 0s 0 -
R I 1973 o - Jun 3 0s 1 S
R I 1973 1974 - S lastSu 0s 0 -
R I 1974 o - May 26 0s 1 S
R I 1975 o - Jun 1 0s 1 S
R I 1975 1977 - S lastSu 0s 0 -

R I 1976 o - May 30 0s 1 S
R I 1977 1979 - May Su>=22 0s 1 S
R I 1978 o - O 1 0s 0 -
R I 1979 o - S 30 0s 0 -
Z Europe/Rome 0:49:56 - LMT 1866 D 12
0:49:56 - RMT 1893 O 31 23:49:56
1 I CE%sT 1943 S 10
1 c CE%sT 1944 Jun 4
1 I CE%sT 1980
1 E CE%sT
L Europe/Rome Europe/Vatican
L Europe/Rome Europe/San_Marino
R LV 1989 1996 - Mar lastSu 2s 1 S
R LV 1989 1996 - S lastSu 2s 0 -
Z Europe/Riga 1:36:34 - LMT 1880
1:36:34 - RMT 1918 Ap 15 2
1:36:34 1 LST 1918 S 16 3
1:36:34 - RMT 1919 Ap 1 2
1:36:34 1 LST 1919 May 22 3
1:36:34 - RMT 1926 May 11
2 - EET 1940 Au 5
3 - MSK 1941 Jul
1 c CE%sT 1944 O 13
3 R MSK/MSD 1989 Mar lastSu 2s
2 1 EEST 1989 S lastSu 2s
2 LV EE%sT 1997 Ja 21
2 E EE%sT 2000 F 29
2 - EET 2001 Ja 2
2 E EE%sT
L Europe/Zurich Europe/Vaduz
Z Europe/Vilnius 1:41:16 - LMT 1880
1:24 - WMT 1917
1:35:36 - KMT 1919 O 10
1 - CET 1920 Jul 12
2 - EET 1920 O 9
1 - CET 1940 Au 3
3 - MSK 1941 Jun 24
1 c CE%sT 1944 Au
3 R MSK/MSD 1989 Mar 26 2s
2 R EE%sT 1991 S 29 2s
2 c EE%sT 1998
2 - EET 1998 Mar 29 1u
1 E CE%sT 1999 O 31 1u
2 - EET 2003
2 E EE%sT
R LX 1916 o - May 14 23 1 S
R LX 1916 o - O 1 1 0 -
R LX 1917 o - Ap 28 23 1 S

R LX 1917 o - S 17 1 0 -
R LX 1918 o - Ap M>=15 2s 1 S
R LX 1918 o - S M>=15 2s 0 -
R LX 1919 o - Mar 1 23 1 S
R LX 1919 o - O 5 3 0 -
R LX 1920 o - F 14 23 1 S
R LX 1920 o - O 24 2 0 -
R LX 1921 o - Mar 14 23 1 S
R LX 1921 o - O 26 2 0 -
R LX 1922 o - Mar 25 23 1 S
R LX 1922 o - O Su>=2 1 0 -
R LX 1923 o - Ap 21 23 1 S
R LX 1923 o - O Su>=2 2 0 -
R LX 1924 o - Mar 29 23 1 S
R LX 1924 1928 - O Su>=2 1 0 -
R LX 1925 o - Ap 5 23 1 S
R LX 1926 o - Ap 17 23 1 S
R LX 1927 o - Ap 9 23 1 S
R LX 1928 o - Ap 14 23 1 S
R LX 1929 o - Ap 20 23 1 S
Z Europe/Luxembourg 0:24:36 - LMT 1904 Jun
1 LX CE%sT 1918 N 25
0 LX WE%sT 1929 O 6 2s
0 b WE%sT 1940 May 14 3
1 c WE%sT 1944 S 18 3
1 b CE%sT 1977
1 E CE%sT
R MT 1973 o - Mar 31 0s 1 S
R MT 1973 o - S 29 0s 0 -
R MT 1974 o - Ap 21 0s 1 S
R MT 1974 o - S 16 0s 0 -
R MT 1975 1979 - Ap Su>=15 2 1 S
R MT 1975 1980 - S Su>=15 2 0 -
R MT 1980 o - Mar 31 2 1 S
Z Europe/Malta 0:58:4 - LMT 1893 N 2 0s
1 I CE%sT 1973 Mar 31
1 MT CE%sT 1981
1 E CE%sT
R MD 1997 ma - Mar lastSu 2 1 S
R MD 1997 ma - O lastSu 3 0 -
Z Europe/Chisinau 1:55:20 - LMT 1880
1:55 - CMT 1918 F 15
1:44:24 - BMT 1931 Jul 24
2 z EE%sT 1940 Au 15
2 1 EEST 1941 Jul 17
1 c CE%sT 1944 Au 24
3 R MSK/MSD 1990 May 6 2
2 R EE%sT 1992

2 e EE%ST 1997
 2 MD EE%ST
 Z Europe/Monaco 0:29:32 - LMT 1891 Mar 15
 0:9:21 - PMT 1911 Mar 11
 0 F WE%ST 1945 S 16 3
 1 F CE%ST 1977
 1 E CE%ST
 R N 1916 o - May 1 0 1 NST
 R N 1916 o - O 1 0 0 AMT
 R N 1917 o - Ap 16 2s 1 NST
 R N 1917 o - S 17 2s 0 AMT
 R N 1918 1921 - Ap M>=1 2s 1 NST
 R N 1918 1921 - S lastM 2s 0 AMT
 R N 1922 o - Mar lastSu 2s 1 NST
 R N 1922 1936 - O Su>=2 2s 0 AMT
 R N 1923 o - Jun F>=1 2s 1 NST
 R N 1924 o - Mar lastSu 2s 1 NST
 R N 1925 o - Jun F>=1 2s 1 NST
 R N 1926 1931 - May 15 2s 1 NST
 R N 1932 o - May 22 2s 1 NST
 R N 1933 1936 - May 15 2s 1 NST
 R N 1937 o - May 22 2s 1 NST
 R N 1937 o - Jul 1 0 1 S
 R N 1937 1939 - O Su>=2 2s 0 -
 R N 1938 1939 - May 15 2s 1 S
 R N 1945 o - Ap 2 2s 1 S
 R N 1945 o - S 16 2s 0 -
 Z Europe/Amsterdam 0:19:32 - LMT 1835
 0:19:32 N %s 1937 Jul
 0:20 N +0020/+0120 1940 May 16
 1 c CE%ST 1945 Ap 2 2
 1 N CE%ST 1977
 1 E CE%ST
 R NO 1916 o - May 22 1 1 S
 R NO 1916 o - S 30 0 0 -
 R NO 1945 o - Ap 2 2s 1 S
 R NO 1945 o - O 1 2s 0 -
 R NO 1959 1964 - Mar Su>=15 2s 1 S
 R NO 1959 1965 - S Su>=15 2s 0 -
 R NO 1965 o - Ap 25 2s 1 S
 Z Europe/Oslo 0:43 - LMT 1895
 1 NO CE%ST 1940 Au 10 23
 1 c CE%ST 1945 Ap 2 2
 1 NO CE%ST 1980
 1 E CE%ST
 L Europe/Oslo Arctic/Longyearbyen
 R O 1918 1919 - S 16 2s 0 -
 R O 1919 o - Ap 15 2s 1 S

R O 1944 o - Ap 3 2s 1 S
R O 1944 o - O 4 2 0 -
R O 1945 o - Ap 29 0 1 S
R O 1945 o - N 1 0 0 -
R O 1946 o - Ap 14 0s 1 S
R O 1946 o - O 7 2s 0 -
R O 1947 o - May 4 2s 1 S
R O 1947 1949 - O Su>=1 2s 0 -
R O 1948 o - Ap 18 2s 1 S
R O 1949 o - Ap 10 2s 1 S
R O 1957 o - Jun 2 1s 1 S
R O 1957 1958 - S lastSu 1s 0 -
R O 1958 o - Mar 30 1s 1 S
R O 1959 o - May 31 1s 1 S
R O 1959 1961 - O Su>=1 1s 0 -
R O 1960 o - Ap 3 1s 1 S
R O 1961 1964 - May lastSu 1s 1 S
R O 1962 1964 - S lastSu 1s 0 -
Z Europe/Warsaw 1:24 - LMT 1880
1:24 - WMT 1915 Au 5
1 c CE%sT 1918 S 16 3
2 O EE%sT 1922 Jun
1 O CE%sT 1940 Jun 23 2
1 c CE%sT 1944 O
1 O CE%sT 1977
1 W- CE%sT 1988
1 E CE%sT
R p 1916 o - Jun 17 23 1 S
R p 1916 o - N 1 1 0 -
R p 1917 o - F 28 23s 1 S
R p 1917 1921 - O 14 23s 0 -
R p 1918 o - Mar 1 23s 1 S
R p 1919 o - F 28 23s 1 S
R p 1920 o - F 29 23s 1 S
R p 1921 o - F 28 23s 1 S
R p 1924 o - Ap 16 23s 1 S
R p 1924 o - O 14 23s 0 -
R p 1926 o - Ap 17 23s 1 S
R p 1926 1929 - O Sa>=1 23s 0 -
R p 1927 o - Ap 9 23s 1 S
R p 1928 o - Ap 14 23s 1 S
R p 1929 o - Ap 20 23s 1 S
R p 1931 o - Ap 18 23s 1 S
R p 1931 1932 - O Sa>=1 23s 0 -
R p 1932 o - Ap 2 23s 1 S
R p 1934 o - Ap 7 23s 1 S
R p 1934 1938 - O Sa>=1 23s 0 -
R p 1935 o - Mar 30 23s 1 S

R p 1936 o - Ap 18 23s 1 S
R p 1937 o - Ap 3 23s 1 S
R p 1938 o - Mar 26 23s 1 S
R p 1939 o - Ap 15 23s 1 S
R p 1939 o - N 18 23s 0 -
R p 1940 o - F 24 23s 1 S
R p 1940 1941 - O 5 23s 0 -
R p 1941 o - Ap 5 23s 1 S
R p 1942 1945 - Mar Sa>=8 23s 1 S
R p 1942 o - Ap 25 22s 2 M
R p 1942 o - Au 15 22s 1 S
R p 1942 1945 - O Sa>=24 23s 0 -
R p 1943 o - Ap 17 22s 2 M
R p 1943 1945 - Au Sa>=25 22s 1 S
R p 1944 1945 - Ap Sa>=21 22s 2 M
R p 1946 o - Ap Sa>=1 23s 1 S
R p 1946 o - O Sa>=1 23s 0 -
R p 1947 1949 - Ap Su>=1 2s 1 S
R p 1947 1949 - O Su>=1 2s 0 -
R p 1951 1965 - Ap Su>=1 2s 1 S
R p 1951 1965 - O Su>=1 2s 0 -
R p 1977 o - Mar 27 0s 1 S
R p 1977 o - S 25 0s 0 -
R p 1978 1979 - Ap Su>=1 0s 1 S
R p 1978 o - O 1 0s 0 -
R p 1979 1982 - S lastSu 1s 0 -
R p 1980 o - Mar lastSu 0s 1 S
R p 1981 1982 - Mar lastSu 1s 1 S
R p 1983 o - Mar lastSu 2s 1 S
Z Europe/Lisbon -0:36:45 - LMT 1884
-0:36:45 - LMT 1912 Ja 1 0u
0 p WE%sT 1966 Ap 3 2
1 - CET 1976 S 26 1
0 p WE%sT 1983 S 25 1s
0 W- WE%sT 1992 S 27 1s
1 E CE%sT 1996 Mar 31 1u
0 E WE%sT
Z Atlantic/Azores -1:42:40 - LMT 1884
-1:54:32 - HMT 1912 Ja 1 2u
-2 p -02/-01 1942 Ap 25 22s
-2 p +00 1942 Au 15 22s
-2 p -02/-01 1943 Ap 17 22s
-2 p +00 1943 Au 28 22s
-2 p -02/-01 1944 Ap 22 22s
-2 p +00 1944 Au 26 22s
-2 p -02/-01 1945 Ap 21 22s
-2 p +00 1945 Au 25 22s
-2 p -02/-01 1966 Ap 3 2

-1 p -01/+00 1983 S 25 1s
-1 W- -01/+00 1992 S 27 1s
0 E WE%ST 1993 Mar 28 1u
-1 E -01/+00
Z Atlantic/Madeira -1:7:36 - LMT 1884
-1:7:36 - FMT 1912 Ja 1 1u
-1 p -01/+00 1942 Ap 25 22s
-1 p +01 1942 Au 15 22s
-1 p -01/+00 1943 Ap 17 22s
-1 p +01 1943 Au 28 22s
-1 p -01/+00 1944 Ap 22 22s
-1 p +01 1944 Au 26 22s
-1 p -01/+00 1945 Ap 21 22s
-1 p +01 1945 Au 25 22s
-1 p -01/+00 1966 Ap 3 2
0 p WE%ST 1983 S 25 1s
0 E WE%ST
R z 1932 o - May 21 0s 1 S
R z 1932 1939 - O Su>=1 0s 0 -
R z 1933 1939 - Ap Su>=2 0s 1 S
R z 1979 o - May 27 0 1 S
R z 1979 o - S lastSu 0 0 -
R z 1980 o - Ap 5 23 1 S
R z 1980 o - S lastSu 1 0 -
R z 1991 1993 - Mar lastSu 0s 1 S
R z 1991 1993 - S lastSu 0s 0 -
Z Europe/Bucharest 1:44:24 - LMT 1891 O
1:44:24 - BMT 1931 Jul 24
2 z EE%ST 1981 Mar 29 2s
2 c EE%ST 1991
2 z EE%ST 1994
2 e EE%ST 1997
2 E EE%ST
Z Europe/Kaliningrad 1:22 - LMT 1893 Ap
1 c CE%ST 1945
2 O CE%ST 1946
3 R MSK/MSD 1989 Mar 26 2s
2 R EE%ST 2011 Mar 27 2s
3 - +03 2014 O 26 2s
2 - EET
Z Europe/Moscow 2:30:17 - LMT 1880
2:30:17 - MMT 1916 Jul 3
2:31:19 R %s 1919 Jul 1 0u
3 R %s 1921 O
3 R MSK/MSD 1922 O
2 - EET 1930 Jun 21
3 R MSK/MSD 1991 Mar 31 2s
2 R EE%ST 1992 Ja 19 2s

3 R MSK/MSD 2011 Mar 27 2s
4 - MSK 2014 O 26 2s
3 - MSK
Z Europe/Simferopol 2:16:24 - LMT 1880
2:16 - SMT 1924 May 2
2 - EET 1930 Jun 21
3 - MSK 1941 N
1 c CE%ST 1944 Ap 13
3 R MSK/MSD 1990
3 - MSK 1990 Jul 1 2
2 - EET 1992
2 e EE%ST 1994 May
3 e MSK/MSD 1996 Mar 31 0s
3 1 MSD 1996 O 27 3s
3 R MSK/MSD 1997
3 - MSK 1997 Mar lastSu 1u
2 E EE%ST 2014 Mar 30 2
4 - MSK 2014 O 26 2s
3 - MSK
Z Europe/Astrakhan 3:12:12 - LMT 1924 May
3 - +03 1930 Jun 21
4 R +04/+05 1989 Mar 26 2s
3 R +03/+04 1991 Mar 31 2s
4 - +04 1992 Mar 29 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04 2014 O 26 2s
3 - +03 2016 Mar 27 2s
4 - +04
Z Europe/Volgograd 2:57:40 - LMT 1920 Ja 3
3 - +03 1930 Jun 21
4 - +04 1961 N 11
4 R +04/+05 1988 Mar 27 2s
3 R +03/+04 1991 Mar 31 2s
4 - +04 1992 Mar 29 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04 2014 O 26 2s
3 - +03 2018 O 28 2s
4 - +04
Z Europe/Saratov 3:4:18 - LMT 1919 Jul 1 0u
3 - +03 1930 Jun 21
4 R +04/+05 1988 Mar 27 2s
3 R +03/+04 1991 Mar 31 2s
4 - +04 1992 Mar 29 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04 2014 O 26 2s
3 - +03 2016 D 4 2s
4 - +04
Z Europe/Kirov 3:18:48 - LMT 1919 Jul 1 0u

3 - +03 1930 Jun 21
4 R +04/+05 1989 Mar 26 2s
3 R +03/+04 1991 Mar 31 2s
4 - +04 1992 Mar 29 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04 2014 O 26 2s
3 - +03
Z Europe/Samara 3:20:20 - LMT 1919 Jul 1 0u
3 - +03 1930 Jun 21
4 - +04 1935 Ja 27
4 R +04/+05 1989 Mar 26 2s
3 R +03/+04 1991 Mar 31 2s
2 R +02/+03 1991 S 29 2s
3 - +03 1991 O 20 3
4 R +04/+05 2010 Mar 28 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04
Z Europe/Ulyanovsk 3:13:36 - LMT 1919 Jul 1 0u
3 - +03 1930 Jun 21
4 R +04/+05 1989 Mar 26 2s
3 R +03/+04 1991 Mar 31 2s
2 R +02/+03 1992 Ja 19 2s
3 R +03/+04 2011 Mar 27 2s
4 - +04 2014 O 26 2s
3 - +03 2016 Mar 27 2s
4 - +04
Z Asia/Yekaterinburg 4:2:33 - LMT 1916 Jul 3
3:45:5 - PMT 1919 Jul 15 4
4 - +04 1930 Jun 21
5 R +05/+06 1991 Mar 31 2s
4 R +04/+05 1992 Ja 19 2s
5 R +05/+06 2011 Mar 27 2s
6 - +06 2014 O 26 2s
5 - +05
Z Asia/Omsk 4:53:30 - LMT 1919 N 14
5 - +05 1930 Jun 21
6 R +06/+07 1991 Mar 31 2s
5 R +05/+06 1992 Ja 19 2s
6 R +06/+07 2011 Mar 27 2s
7 - +07 2014 O 26 2s
6 - +06
Z Asia/Barnaul 5:35 - LMT 1919 D 10
6 - +06 1930 Jun 21
7 R +07/+08 1991 Mar 31 2s
6 R +06/+07 1992 Ja 19 2s
7 R +07/+08 1995 May 28
6 R +06/+07 2011 Mar 27 2s
7 - +07 2014 O 26 2s

6 - +06 2016 Mar 27 2s
7 - +07
Z Asia/Novosibirsk 5:31:40 - LMT 1919 D 14 6
6 - +06 1930 Jun 21
7 R +07/+08 1991 Mar 31 2s
6 R +06/+07 1992 Ja 19 2s
7 R +07/+08 1993 May 23
6 R +06/+07 2011 Mar 27 2s
7 - +07 2014 O 26 2s
6 - +06 2016 Jul 24 2s
7 - +07
Z Asia/Tomsk 5:39:51 - LMT 1919 D 22
6 - +06 1930 Jun 21
7 R +07/+08 1991 Mar 31 2s
6 R +06/+07 1992 Ja 19 2s
7 R +07/+08 2002 May 1 3
6 R +06/+07 2011 Mar 27 2s
7 - +07 2014 O 26 2s
6 - +06 2016 May 29 2s
7 - +07
Z Asia/Novokuznetsk 5:48:48 - LMT 1924 May
6 - +06 1930 Jun 21
7 R +07/+08 1991 Mar 31 2s
6 R +06/+07 1992 Ja 19 2s
7 R +07/+08 2010 Mar 28 2s
6 R +06/+07 2011 Mar 27 2s
7 - +07
Z Asia/Krasnoyarsk 6:11:26 - LMT 1920 Ja 6
6 - +06 1930 Jun 21
7 R +07/+08 1991 Mar 31 2s
6 R +06/+07 1992 Ja 19 2s
7 R +07/+08 2011 Mar 27 2s
8 - +08 2014 O 26 2s
7 - +07
Z Asia/Irkutsk 6:57:5 - LMT 1880
6:57:5 - IMT 1920 Ja 25
7 - +07 1930 Jun 21
8 R +08/+09 1991 Mar 31 2s
7 R +07/+08 1992 Ja 19 2s
8 R +08/+09 2011 Mar 27 2s
9 - +09 2014 O 26 2s
8 - +08
Z Asia/Chita 7:33:52 - LMT 1919 D 15
8 - +08 1930 Jun 21
9 R +09/+10 1991 Mar 31 2s
8 R +08/+09 1992 Ja 19 2s
9 R +09/+10 2011 Mar 27 2s
10 - +10 2014 O 26 2s

8 - +08 2016 Mar 27 2
9 - +09
Z Asia/Yakutsk 8:38:58 - LMT 1919 D 15
8 - +08 1930 Jun 21
9 R +09/+10 1991 Mar 31 2s
8 R +08/+09 1992 Ja 19 2s
9 R +09/+10 2011 Mar 27 2s
10 - +10 2014 O 26 2s
9 - +09
Z Asia/Vladivostok 8:47:31 - LMT 1922 N 15
9 - +09 1930 Jun 21
10 R +10/+11 1991 Mar 31 2s
9 R +09/+10 1992 Ja 19 2s
10 R +10/+11 2011 Mar 27 2s
11 - +11 2014 O 26 2s
10 - +10
Z Asia/Khandyga 9:2:13 - LMT 1919 D 15
8 - +08 1930 Jun 21
9 R +09/+10 1991 Mar 31 2s
8 R +08/+09 1992 Ja 19 2s
9 R +09/+10 2004
10 R +10/+11 2011 Mar 27 2s
11 - +11 2011 S 13 0s
10 - +10 2014 O 26 2s
9 - +09
Z Asia/Sakhalin 9:30:48 - LMT 1905 Au 23
9 - +09 1945 Au 25
11 R +11/+12 1991 Mar 31 2s
10 R +10/+11 1992 Ja 19 2s
11 R +11/+12 1997 Mar lastSu 2s
10 R +10/+11 2011 Mar 27 2s
11 - +11 2014 O 26 2s
10 - +10 2016 Mar 27 2s
11 - +11
Z Asia/Magadan 10:3:12 - LMT 1924 May 2
10 - +10 1930 Jun 21
11 R +11/+12 1991 Mar 31 2s
10 R +10/+11 1992 Ja 19 2s
11 R +11/+12 2011 Mar 27 2s
12 - +12 2014 O 26 2s
10 - +10 2016 Ap 24 2s
11 - +11
Z Asia/Srednekolymsk 10:14:52 - LMT 1924 May 2
10 - +10 1930 Jun 21
11 R +11/+12 1991 Mar 31 2s
10 R +10/+11 1992 Ja 19 2s
11 R +11/+12 2011 Mar 27 2s
12 - +12 2014 O 26 2s

11 - +11
Z Asia/Ust-Nera 9:32:54 - LMT 1919 D 15
8 - +08 1930 Jun 21
9 R +09/+10 1981 Ap
11 R +11/+12 1991 Mar 31 2s
10 R +10/+11 1992 Ja 19 2s
11 R +11/+12 2011 Mar 27 2s
12 - +12 2011 S 13 0s
11 - +11 2014 O 26 2s
10 - +10
Z Asia/Kamchatka 10:34:36 - LMT 1922 N 10
11 - +11 1930 Jun 21
12 R +12/+13 1991 Mar 31 2s
11 R +11/+12 1992 Ja 19 2s
12 R +12/+13 2010 Mar 28 2s
11 R +11/+12 2011 Mar 27 2s
12 - +12
Z Asia/Anadyr 11:49:56 - LMT 1924 May 2
12 - +12 1930 Jun 21
13 R +13/+14 1982 Ap 1 0s
12 R +12/+13 1991 Mar 31 2s
11 R +11/+12 1992 Ja 19 2s
12 R +12/+13 2010 Mar 28 2s
11 R +11/+12 2011 Mar 27 2s
12 - +12
Z Europe/Belgrade 1:22 - LMT 1884
1 - CET 1941 Ap 18 23
1 c CE%ST 1945
1 - CET 1945 May 8 2s
1 1 CEST 1945 S 16 2s
1 - CET 1982 N 27
1 E CE%ST
L Europe/Belgrade Europe/Ljubljana
L Europe/Belgrade Europe/Podgorica
L Europe/Belgrade Europe/Sarajevo
L Europe/Belgrade Europe/Skopje
L Europe/Belgrade Europe/Zagreb
L Europe/Prague Europe/Bratislava
R s 1918 o - Ap 15 23 1 S
R s 1918 1919 - O 6 24s 0 -
R s 1919 o - Ap 6 23 1 S
R s 1924 o - Ap 16 23 1 S
R s 1924 o - O 4 24s 0 -
R s 1926 o - Ap 17 23 1 S
R s 1926 1929 - O Sa>=1 24s 0 -
R s 1927 o - Ap 9 23 1 S
R s 1928 o - Ap 15 0 1 S
R s 1929 o - Ap 20 23 1 S

R s 1937 o - Jun 16 23 1 S
R s 1937 o - O 2 24s 0 -
R s 1938 o - Ap 2 23 1 S
R s 1938 o - Ap 30 23 2 M
R s 1938 o - O 2 24 1 S
R s 1939 o - O 7 24s 0 -
R s 1942 o - May 2 23 1 S
R s 1942 o - S 1 1 0 -
R s 1943 1946 - Ap Sa>=13 23 1 S
R s 1943 1944 - O Su>=1 1 0 -
R s 1945 1946 - S lastSu 1 0 -
R s 1949 o - Ap 30 23 1 S
R s 1949 o - O 2 1 0 -
R s 1974 1975 - Ap Sa>=12 23 1 S
R s 1974 1975 - O Su>=1 1 0 -
R s 1976 o - Mar 27 23 1 S
R s 1976 1977 - S lastSu 1 0 -
R s 1977 o - Ap 2 23 1 S
R s 1978 o - Ap 2 2s 1 S
R s 1978 o - O 1 2s 0 -
R Sp 1967 o - Jun 3 12 1 S
R Sp 1967 o - O 1 0 0 -
R Sp 1974 o - Jun 24 0 1 S
R Sp 1974 o - S 1 0 0 -
R Sp 1976 1977 - May 1 0 1 S
R Sp 1976 o - Au 1 0 0 -
R Sp 1977 o - S 28 0 0 -
R Sp 1978 o - Jun 1 0 1 S
R Sp 1978 o - Au 4 0 0 -
Z Europe/Madrid -0:14:44 - LMT 1900 D 31 23:45:16
0 s WE%sT 1940 Mar 16 23
1 s CE%sT 1979
1 E CE%sT
Z Africa/Ceuta -0:21:16 - LMT 1900 D 31 23:38:44
0 - WET 1918 May 6 23
0 1 WEST 1918 O 7 23
0 - WET 1924
0 s WE%sT 1929
0 - WET 1967
0 Sp WE%sT 1984 Mar 16
1 - CET 1986
1 E CE%sT
Z Atlantic/Canary -1:1:36 - LMT 1922 Mar
-1 - -01 1946 S 30 1
0 - WET 1980 Ap 6 0s
0 1 WEST 1980 S 28 1u
0 E WE%sT
Z Europe/Stockholm 1:12:12 - LMT 1879

1:0:14 - SET 1900
1 - CET 1916 May 14 23
1 1 CEST 1916 O 1 1
1 - CET 1980
1 E CE%ST
R CH 1941 1942 - May M>=1 1 1 S
R CH 1941 1942 - O M>=1 2 0 -
Z Europe/Zurich 0:34:8 - LMT 1853 Jul 16
0:29:46 - BMT 1894 Jun
1 CH CE%ST 1981
1 E CE%ST
R T 1916 o - May 1 0 1 S
R T 1916 o - O 1 0 0 -
R T 1920 o - Mar 28 0 1 S
R T 1920 o - O 25 0 0 -
R T 1921 o - Ap 3 0 1 S
R T 1921 o - O 3 0 0 -
R T 1922 o - Mar 26 0 1 S
R T 1922 o - O 8 0 0 -
R T 1924 o - May 13 0 1 S
R T 1924 1925 - O 1 0 0 -
R T 1925 o - May 1 0 1 S
R T 1940 o - Jun 30 0 1 S
R T 1940 o - O 5 0 0 -
R T 1940 o - D 1 0 1 S
R T 1941 o - S 21 0 0 -
R T 1942 o - Ap 1 0 1 S
R T 1942 o - N 1 0 0 -
R T 1945 o - Ap 2 0 1 S
R T 1945 o - O 8 0 0 -
R T 1946 o - Jun 1 0 1 S
R T 1946 o - O 1 0 0 -
R T 1947 1948 - Ap Su>=16 0 1 S
R T 1947 1950 - O Su>=2 0 0 -
R T 1949 o - Ap 10 0 1 S
R T 1950 o - Ap 19 0 1 S
R T 1951 o - Ap 22 0 1 S
R T 1951 o - O 8 0 0 -
R T 1962 o - Jul 15 0 1 S
R T 1962 o - O 8 0 0 -
R T 1964 o - May 15 0 1 S
R T 1964 o - O 1 0 0 -
R T 1970 1972 - May Su>=2 0 1 S
R T 1970 1972 - O Su>=2 0 0 -
R T 1973 o - Jun 3 1 1 S
R T 1973 o - N 4 3 0 -
R T 1974 o - Mar 31 2 1 S
R T 1974 o - N 3 5 0 -

R T 1975 o - Mar 30 0 1 S
R T 1975 1976 - O lastSu 0 0 -
R T 1976 o - Jun 1 0 1 S
R T 1977 1978 - Ap Su>=1 0 1 S
R T 1977 o - O 16 0 0 -
R T 1979 1980 - Ap Su>=1 3 1 S
R T 1979 1982 - O M>=11 0 0 -
R T 1981 1982 - Mar lastSu 3 1 S
R T 1983 o - Jul 31 0 1 S
R T 1983 o - O 2 0 0 -
R T 1985 o - Ap 20 0 1 S
R T 1985 o - S 28 0 0 -
R T 1986 1993 - Mar lastSu 1s 1 S
R T 1986 1995 - S lastSu 1s 0 -
R T 1994 o - Mar 20 1s 1 S
R T 1995 2006 - Mar lastSu 1s 1 S
R T 1996 2006 - O lastSu 1s 0 -
Z Europe/Istanbul 1:55:52 - LMT 1880
1:56:56 - IMT 1910 O
2 T EE%sT 1978 O 15
3 T +03/+04 1985 Ap 20
2 T EE%sT 2007
2 E EE%sT 2011 Mar 27 1u
2 - EET 2011 Mar 28 1u
2 E EE%sT 2014 Mar 30 1u
2 - EET 2014 Mar 31 1u
2 E EE%sT 2015 O 25 1u
2 1 EEST 2015 N 8 1u
2 E EE%sT 2016 S 7
3 - +03
L Europe/Istanbul Asia/Istanbul
Z Europe/Kiev 2:2:4 - LMT 1880
2:2:4 - KMT 1924 May 2
2 - EET 1930 Jun 21
3 - MSK 1941 S 20
1 c CE%sT 1943 N 6
3 R MSK/MSD 1990 Jul 1 2
2 1 EEST 1991 S 29 3
2 e EE%sT 1995
2 E EE%sT
Z Europe/Uzhgorod 1:29:12 - LMT 1890 O
1 - CET 1940
1 c CE%sT 1944 O
1 1 CEST 1944 O 26
1 - CET 1945 Jun 29
3 R MSK/MSD 1990
3 - MSK 1990 Jul 1 2
1 - CET 1991 Mar 31 3

2 - EET 1992
2 e EE%sT 1995
2 E EE%sT
Z Europe/Zaporozhye 2:20:40 - LMT 1880
2:20 - +0220 1924 May 2
2 - EET 1930 Jun 21
3 - MSK 1941 Au 25
1 c CE%sT 1943 O 25
3 R MSK/MSD 1991 Mar 31 2
2 e EE%sT 1995
2 E EE%sT
R u 1918 1919 - Mar lastSu 2 1 D
R u 1918 1919 - O lastSu 2 0 S
R u 1942 o - F 9 2 1 W
R u 1945 o - Au 14 23u 1 P
R u 1945 o - S 30 2 0 S
R u 1967 2006 - O lastSu 2 0 S
R u 1967 1973 - Ap lastSu 2 1 D
R u 1974 o - Ja 6 2 1 D
R u 1975 o - F lastSu 2 1 D
R u 1976 1986 - Ap lastSu 2 1 D
R u 1987 2006 - Ap Su>=1 2 1 D
R u 2007 ma - Mar Su>=8 2 1 D
R u 2007 ma - N Su>=1 2 0 S
Z EST -5 - EST
Z MST -7 - MST
Z HST -10 - HST
Z EST5EDT -5 u E%sT
Z CST6CDT -6 u C%sT
Z MST7MDT -7 u M%sT
Z PST8PDT -8 u P%sT
R NY 1920 o - Mar lastSu 2 1 D
R NY 1920 o - O lastSu 2 0 S
R NY 1921 1966 - Ap lastSu 2 1 D
R NY 1921 1954 - S lastSu 2 0 S
R NY 1955 1966 - O lastSu 2 0 S
Z America/New_York -4:56:2 - LMT 1883 N 18 12:3:58
-5 u E%sT 1920
-5 NY E%sT 1942
-5 u E%sT 1946
-5 NY E%sT 1967
-5 u E%sT
R Ch 1920 o - Jun 13 2 1 D
R Ch 1920 1921 - O lastSu 2 0 S
R Ch 1921 o - Mar lastSu 2 1 D
R Ch 1922 1966 - Ap lastSu 2 1 D
R Ch 1922 1954 - S lastSu 2 0 S
R Ch 1955 1966 - O lastSu 2 0 S

Z America/Chicago -5:50:36 - LMT 1883 N 18 12:9:24
-6 u C%sT 1920
-6 Ch C%sT 1936 Mar 1 2
-5 - EST 1936 N 15 2
-6 Ch C%sT 1942
-6 u C%sT 1946
-6 Ch C%sT 1967
-6 u C%sT
Z America/North_Dakota/Center -6:45:12 - LMT 1883 N 18 12:14:48
-7 u M%sT 1992 O 25 2
-6 u C%sT
Z America/North_Dakota/New_Salem -6:45:39 - LMT 1883 N 18 12:14:21
-7 u M%sT 2003 O 26 2
-6 u C%sT
Z America/North_Dakota/Beulah -6:47:7 - LMT 1883 N 18 12:12:53
-7 u M%sT 2010 N 7 2
-6 u C%sT
R De 1920 1921 - Mar lastSu 2 1 D
R De 1920 o - O lastSu 2 0 S
R De 1921 o - May 22 2 0 S
R De 1965 1966 - Ap lastSu 2 1 D
R De 1965 1966 - O lastSu 2 0 S
Z America/Denver -6:59:56 - LMT 1883 N 18 12:0:4
-7 u M%sT 1920
-7 De M%sT 1942
-7 u M%sT 1946
-7 De M%sT 1967
-7 u M%sT
R CA 1948 o - Mar 14 2:1 1 D
R CA 1949 o - Ja 1 2 0 S
R CA 1950 1966 - Ap lastSu 1 1 D
R CA 1950 1961 - S lastSu 2 0 S
R CA 1962 1966 - O lastSu 2 0 S
Z America/Los_Angeles -7:52:58 - LMT 1883 N 18 12:7:2
-8 u P%sT 1946
-8 CA P%sT 1967
-8 u P%sT
Z America/Juneau 15:2:19 - LMT 1867 O 19 15:33:32
-8:57:41 - LMT 1900 Au 20 12
-8 - PST 1942
-8 u P%sT 1946
-8 - PST 1969
-8 u P%sT 1980 Ap 27 2
-9 u Y%sT 1980 O 26 2
-8 u P%sT 1983 O 30 2
-9 u Y%sT 1983 N 30
-9 u AK%sT
Z America/Sitka 14:58:47 - LMT 1867 O 19 15:30

-9:1:13 - LMT 1900 Au 20 12
-8 - PST 1942
-8 u P%ST 1946
-8 - PST 1969
-8 u P%ST 1983 O 30 2
-9 u Y%ST 1983 N 30
-9 u AK%ST
Z America/Metlakatla 15:13:42 - LMT 1867 O 19 15:44:55
-8:46:18 - LMT 1900 Au 20 12
-8 - PST 1942
-8 u P%ST 1946
-8 - PST 1969
-8 u P%ST 1983 O 30 2
-8 - PST 2015 N 1 2
-9 u AK%ST 2018 N 4 2
-8 - PST 2019 Ja 20 2
-9 u AK%ST
Z America/Yakutat 14:41:5 - LMT 1867 O 19 15:12:18
-9:18:55 - LMT 1900 Au 20 12
-9 - YST 1942
-9 u Y%ST 1946
-9 - YST 1969
-9 u Y%ST 1983 N 30
-9 u AK%ST
Z America/Anchorage 14:0:24 - LMT 1867 O 19 14:31:37
-9:59:36 - LMT 1900 Au 20 12
-10 - AST 1942
-10 u A%ST 1967 Ap
-10 - AHST 1969
-10 u AH%ST 1983 O 30 2
-9 u Y%ST 1983 N 30
-9 u AK%ST
Z America/Nome 12:58:22 - LMT 1867 O 19 13:29:35
-11:1:38 - LMT 1900 Au 20 12
-11 - NST 1942
-11 u N%ST 1946
-11 - NST 1967 Ap
-11 - BST 1969
-11 u B%ST 1983 O 30 2
-9 u Y%ST 1983 N 30
-9 u AK%ST
Z America/Adak 12:13:22 - LMT 1867 O 19 12:44:35
-11:46:38 - LMT 1900 Au 20 12
-11 - NST 1942
-11 u N%ST 1946
-11 - NST 1967 Ap
-11 - BST 1969
-11 u B%ST 1983 O 30 2

-10 u AH%ST 1983 N 30
-10 u H%ST
Z Pacific/Honolulu -10:31:26 - LMT 1896 Ja 13 12
-10:30 - HST 1933 Ap 30 2
-10:30 1 HDT 1933 May 21 12
-10:30 u H%ST 1947 Jun 8 2
-10 - HST
Z America/Phoenix -7:28:18 - LMT 1883 N 18 11:31:42
-7 u M%ST 1944 Ja 1 0:1
-7 - MST 1944 Ap 1 0:1
-7 u M%ST 1944 O 1 0:1
-7 - MST 1967
-7 u M%ST 1968 Mar 21
-7 - MST
Z America/Boise -7:44:49 - LMT 1883 N 18 12:15:11
-8 u P%ST 1923 May 13 2
-7 u M%ST 1974
-7 - MST 1974 F 3 2
-7 u M%ST
R In 1941 o - Jun 22 2 1 D
R In 1941 1954 - S lastSu 2 0 S
R In 1946 1954 - Ap lastSu 2 1 D
Z America/Indiana/Indianapolis -5:44:38 - LMT 1883 N 18 12:15:22
-6 u C%ST 1920
-6 In C%ST 1942
-6 u C%ST 1946
-6 In C%ST 1955 Ap 24 2
-5 - EST 1957 S 29 2
-6 - CST 1958 Ap 27 2
-5 - EST 1969
-5 u E%ST 1971
-5 - EST 2006
-5 u E%ST
R Ma 1951 o - Ap lastSu 2 1 D
R Ma 1951 o - S lastSu 2 0 S
R Ma 1954 1960 - Ap lastSu 2 1 D
R Ma 1954 1960 - S lastSu 2 0 S
Z America/Indiana/Marengo -5:45:23 - LMT 1883 N 18 12:14:37
-6 u C%ST 1951
-6 Ma C%ST 1961 Ap 30 2
-5 - EST 1969
-5 u E%ST 1974 Ja 6 2
-6 1 CDT 1974 O 27 2
-5 u E%ST 1976
-5 - EST 2006
-5 u E%ST
R V 1946 o - Ap lastSu 2 1 D
R V 1946 o - S lastSu 2 0 S

R V 1953 1954 - Ap lastSu 2 1 D
R V 1953 1959 - S lastSu 2 0 S
R V 1955 o - May 1 0 1 D
R V 1956 1963 - Ap lastSu 2 1 D
R V 1960 o - O lastSu 2 0 S
R V 1961 o - S lastSu 2 0 S
R V 1962 1963 - O lastSu 2 0 S
Z America/Indiana/Vincennes -5:50:7 - LMT 1883 N 18 12:9:53
-6 u C%sT 1946
-6 V C%sT 1964 Ap 26 2
-5 - EST 1969
-5 u E%sT 1971
-5 - EST 2006 Ap 2 2
-6 u C%sT 2007 N 4 2
-5 u E%sT
R Pe 1946 o - Ap lastSu 2 1 D
R Pe 1946 o - S lastSu 2 0 S
R Pe 1953 1954 - Ap lastSu 2 1 D
R Pe 1953 1959 - S lastSu 2 0 S
R Pe 1955 o - May 1 0 1 D
R Pe 1956 1963 - Ap lastSu 2 1 D
R Pe 1960 o - O lastSu 2 0 S
R Pe 1961 o - S lastSu 2 0 S
R Pe 1962 1963 - O lastSu 2 0 S
Z America/Indiana/Tell_City -5:47:3 - LMT 1883 N 18 12:12:57
-6 u C%sT 1946
-6 Pe C%sT 1964 Ap 26 2
-5 - EST 1969
-5 u E%sT 1971
-5 - EST 2006 Ap 2 2
-6 u C%sT
R Pi 1955 o - May 1 0 1 D
R Pi 1955 1960 - S lastSu 2 0 S
R Pi 1956 1964 - Ap lastSu 2 1 D
R Pi 1961 1964 - O lastSu 2 0 S
Z America/Indiana/Petersburg -5:49:7 - LMT 1883 N 18 12:10:53
-6 u C%sT 1955
-6 Pi C%sT 1965 Ap 25 2
-5 - EST 1966 O 30 2
-6 u C%sT 1977 O 30 2
-5 - EST 2006 Ap 2 2
-6 u C%sT 2007 N 4 2
-5 u E%sT
R St 1947 1961 - Ap lastSu 2 1 D
R St 1947 1954 - S lastSu 2 0 S
R St 1955 1956 - O lastSu 2 0 S
R St 1957 1958 - S lastSu 2 0 S
R St 1959 1961 - O lastSu 2 0 S

Z America/Indiana/Knox -5:46:30 - LMT 1883 N 18 12:13:30

-6 u C%ST 1947

-6 St C%ST 1962 Ap 29 2

-5 - EST 1963 O 27 2

-6 u C%ST 1991 O 27 2

-5 - EST 2006 Ap 2 2

-6 u C%ST

R Pu 1946 1960 - Ap lastSu 2 1 D

R Pu 1946 1954 - S lastSu 2 0 S

R Pu 1955 1956 - O lastSu 2 0 S

R Pu 1957 1960 - S lastSu 2 0 S

Z America/Indiana/Winamac -5:46:25 - LMT 1883 N 18 12:13:35

-6 u C%ST 1946

-6 Pu C%ST 1961 Ap 30 2

-5 - EST 1969

-5 u E%ST 1971

-5 - EST 2006 Ap 2 2

-6 u C%ST 2007 Mar 11 2

-5 u E%ST

Z America/Indiana/Vevay -5:40:16 - LMT 1883 N 18 12:19:44

-6 u C%ST 1954 Ap 25 2

-5 - EST 1969

-5 u E%ST 1973

-5 - EST 2006

-5 u E%ST

R v 1921 o - May 1 2 1 D

R v 1921 o - S 1 2 0 S

R v 1941 1961 - Ap lastSu 2 1 D

R v 1941 o - S lastSu 2 0 S

R v 1946 o - Jun 2 2 0 S

R v 1950 1955 - S lastSu 2 0 S

R v 1956 1960 - O lastSu 2 0 S

Z America/Kentucky/Louisville -5:43:2 - LMT 1883 N 18 12:16:58

-6 u C%ST 1921

-6 v C%ST 1942

-6 u C%ST 1946

-6 v C%ST 1961 Jul 23 2

-5 - EST 1968

-5 u E%ST 1974 Ja 6 2

-6 1 CDT 1974 O 27 2

-5 u E%ST

Z America/Kentucky/Monticello -5:39:24 - LMT 1883 N 18 12:20:36

-6 u C%ST 1946

-6 - CST 1968

-6 u C%ST 2000 O 29 2

-5 u E%ST

R Dt 1948 o - Ap lastSu 2 1 D

R Dt 1948 o - S lastSu 2 0 S

Z America/Detroit -5:32:11 - LMT 1905
-6 - CST 1915 May 15 2
-5 - EST 1942
-5 u E%ST 1946
-5 Dt E%ST 1973
-5 u E%ST 1975
-5 - EST 1975 Ap 27 2
-5 u E%ST
R Me 1946 o - Ap lastSu 2 1 D
R Me 1946 o - S lastSu 2 0 S
R Me 1966 o - Ap lastSu 2 1 D
R Me 1966 o - O lastSu 2 0 S
Z America/Menominee -5:50:27 - LMT 1885 S 18 12
-6 u C%ST 1946
-6 Me C%ST 1969 Ap 27 2
-5 - EST 1973 Ap 29 2
-6 u C%ST
R C 1918 o - Ap 14 2 1 D
R C 1918 o - O 27 2 0 S
R C 1942 o - F 9 2 1 W
R C 1945 o - Au 14 23u 1 P
R C 1945 o - S 30 2 0 S
R C 1974 1986 - Ap lastSu 2 1 D
R C 1974 2006 - O lastSu 2 0 S
R C 1987 2006 - Ap Su>=1 2 1 D
R C 2007 ma - Mar Su>=8 2 1 D
R C 2007 ma - N Su>=1 2 0 S
R j 1917 o - Ap 8 2 1 D
R j 1917 o - S 17 2 0 S
R j 1919 o - May 5 23 1 D
R j 1919 o - Au 12 23 0 S
R j 1920 1935 - May Su>=1 23 1 D
R j 1920 1935 - O lastSu 23 0 S
R j 1936 1941 - May M>=9 0 1 D
R j 1936 1941 - O M>=2 0 0 S
R j 1946 1950 - May Su>=8 2 1 D
R j 1946 1950 - O Su>=2 2 0 S
R j 1951 1986 - Ap lastSu 2 1 D
R j 1951 1959 - S lastSu 2 0 S
R j 1960 1986 - O lastSu 2 0 S
R j 1987 o - Ap Su>=1 0:1 1 D
R j 1987 2006 - O lastSu 0:1 0 S
R j 1988 o - Ap Su>=1 0:1 2 DD
R j 1989 2006 - Ap Su>=1 0:1 1 D
R j 2007 2011 - Mar Su>=8 0:1 1 D
R j 2007 2010 - N Su>=1 0:1 0 S
Z America/St_Johns -3:30:52 - LMT 1884
-3:30:52 j N%ST 1918

-3:30:52 C N%ST 1919
-3:30:52 j N%ST 1935 Mar 30
-3:30 j N%ST 1942 May 11
-3:30 C N%ST 1946
-3:30 j N%ST 2011 N
-3:30 C N%ST
Z America/Goose_Bay -4:1:40 - LMT 1884
-3:30:52 - NST 1918
-3:30:52 C N%ST 1919
-3:30:52 - NST 1935 Mar 30
-3:30 - NST 1936
-3:30 j N%ST 1942 May 11
-3:30 C N%ST 1946
-3:30 j N%ST 1966 Mar 15 2
-4 j A%ST 2011 N
-4 C A%ST
R H 1916 o - Ap 1 0 1 D
R H 1916 o - O 1 0 0 S
R H 1920 o - May 9 0 1 D
R H 1920 o - Au 29 0 0 S
R H 1921 o - May 6 0 1 D
R H 1921 1922 - S 5 0 0 S
R H 1922 o - Ap 30 0 1 D
R H 1923 1925 - May Su>=1 0 1 D
R H 1923 o - S 4 0 0 S
R H 1924 o - S 15 0 0 S
R H 1925 o - S 28 0 0 S
R H 1926 o - May 16 0 1 D
R H 1926 o - S 13 0 0 S
R H 1927 o - May 1 0 1 D
R H 1927 o - S 26 0 0 S
R H 1928 1931 - May Su>=8 0 1 D
R H 1928 o - S 9 0 0 S
R H 1929 o - S 3 0 0 S
R H 1930 o - S 15 0 0 S
R H 1931 1932 - S M>=24 0 0 S
R H 1932 o - May 1 0 1 D
R H 1933 o - Ap 30 0 1 D
R H 1933 o - O 2 0 0 S
R H 1934 o - May 20 0 1 D
R H 1934 o - S 16 0 0 S
R H 1935 o - Jun 2 0 1 D
R H 1935 o - S 30 0 0 S
R H 1936 o - Jun 1 0 1 D
R H 1936 o - S 14 0 0 S
R H 1937 1938 - May Su>=1 0 1 D
R H 1937 1941 - S M>=24 0 0 S
R H 1939 o - May 28 0 1 D

R H 1940 1941 - May Su>=1 0 1 D
R H 1946 1949 - Ap lastSu 2 1 D
R H 1946 1949 - S lastSu 2 0 S
R H 1951 1954 - Ap lastSu 2 1 D
R H 1951 1954 - S lastSu 2 0 S
R H 1956 1959 - Ap lastSu 2 1 D
R H 1956 1959 - S lastSu 2 0 S
R H 1962 1973 - Ap lastSu 2 1 D
R H 1962 1973 - O lastSu 2 0 S
Z America/Halifax -4:14:24 - LMT 1902 Jun 15
-4 H A%sT 1918
-4 C A%sT 1919
-4 H A%sT 1942 F 9 2s
-4 C A%sT 1946
-4 H A%sT 1974
-4 C A%sT
Z America/Glace_Bay -3:59:48 - LMT 1902 Jun 15
-4 C A%sT 1953
-4 H A%sT 1954
-4 - AST 1972
-4 H A%sT 1974
-4 C A%sT
R o 1933 1935 - Jun Su>=8 1 1 D
R o 1933 1935 - S Su>=8 1 0 S
R o 1936 1938 - Jun Su>=1 1 1 D
R o 1936 1938 - S Su>=1 1 0 S
R o 1939 o - May 27 1 1 D
R o 1939 1941 - S Sa>=21 1 0 S
R o 1940 o - May 19 1 1 D
R o 1941 o - May 4 1 1 D
R o 1946 1972 - Ap lastSu 2 1 D
R o 1946 1956 - S lastSu 2 0 S
R o 1957 1972 - O lastSu 2 0 S
R o 1993 2006 - Ap Su>=1 0:1 1 D
R o 1993 2006 - O lastSu 0:1 0 S
Z America/Moncton -4:19:8 - LMT 1883 D 9
-5 - EST 1902 Jun 15
-4 C A%sT 1933
-4 o A%sT 1942
-4 C A%sT 1946
-4 o A%sT 1973
-4 C A%sT 1993
-4 o A%sT 2007
-4 C A%sT
Z America/Blanc-Sablon -3:48:28 - LMT 1884
-4 C A%sT 1970
-4 - AST
R t 1919 o - Mar 30 23:30 1 D

R t 1919 o - O 26 0 0 S
R t 1920 o - May 2 2 1 D
R t 1920 o - S 26 0 0 S
R t 1921 o - May 15 2 1 D
R t 1921 o - S 15 2 0 S
R t 1922 1923 - May Su>=8 2 1 D
R t 1922 1926 - S Su>=15 2 0 S
R t 1924 1927 - May Su>=1 2 1 D
R t 1927 1937 - S Su>=25 2 0 S
R t 1928 1937 - Ap Su>=25 2 1 D
R t 1938 1940 - Ap lastSu 2 1 D
R t 1938 1939 - S lastSu 2 0 S
R t 1945 1946 - S lastSu 2 0 S
R t 1946 o - Ap lastSu 2 1 D
R t 1947 1949 - Ap lastSu 0 1 D
R t 1947 1948 - S lastSu 0 0 S
R t 1949 o - N lastSu 0 0 S
R t 1950 1973 - Ap lastSu 2 1 D
R t 1950 o - N lastSu 2 0 S
R t 1951 1956 - S lastSu 2 0 S
R t 1957 1973 - O lastSu 2 0 S
Z America/Toronto -5:17:32 - LMT 1895
-5 C E%sT 1919
-5 t E%sT 1942 F 9 2s
-5 C E%sT 1946
-5 t E%sT 1974
-5 C E%sT
Z America/Thunder_Bay -5:57 - LMT 1895
-6 - CST 1910
-5 - EST 1942
-5 C E%sT 1970
-5 t E%sT 1973
-5 - EST 1974
-5 C E%sT
Z America/Nipigon -5:53:4 - LMT 1895
-5 C E%sT 1940 S 29
-5 1 EDT 1942 F 9 2s
-5 C E%sT
Z America/Rainy_River -6:18:16 - LMT 1895
-6 C C%sT 1940 S 29
-6 1 CDT 1942 F 9 2s
-6 C C%sT
Z America/Atikokan -6:6:28 - LMT 1895
-6 C C%sT 1940 S 29
-6 1 CDT 1942 F 9 2s
-6 C C%sT 1945 S 30 2
-5 - EST
R W 1916 o - Ap 23 0 1 D

R W 1916 o - S 17 0 0 S
 R W 1918 o - Ap 14 2 1 D
 R W 1918 o - O 27 2 0 S
 R W 1937 o - May 16 2 1 D
 R W 1937 o - S 26 2 0 S
 R W 1942 o - F 9 2 1 W
 R W 1945 o - Au 14 23u 1 P
 R W 1945 o - S lastSu 2 0 S
 R W 1946 o - May 12 2 1 D
 R W 1946 o - O 13 2 0 S
 R W 1947 1949 - Ap lastSu 2 1 D
 R W 1947 1949 - S lastSu 2 0 S
 R W 1950 o - May 1 2 1 D
 R W 1950 o - S 30 2 0 S
 R W 1951 1960 - Ap lastSu 2 1 D
 R W 1951 1958 - S lastSu 2 0 S
 R W 1959 o - O lastSu 2 0 S
 R W 1960 o - S lastSu 2 0 S
 R W 1963 o - Ap lastSu 2 1 D
 R W 1963 o - S 22 2 0 S
 R W 1966 1986 - Ap lastSu 2s 1 D
 R W 1966 2005 - O lastSu 2s 0 S
 R W 1987 2005 - Ap Su>=1 2s 1 D
 Z America/Winnipeg -6:28:36 - LMT 1887 Jul 16
 -6 W C%sT 2006
 -6 C C%sT
 R r 1918 o - Ap 14 2 1 D
 R r 1918 o - O 27 2 0 S
 R r 1930 1934 - May Su>=1 0 1 D
 R r 1930 1934 - O Su>=1 0 0 S
 R r 1937 1941 - Ap Su>=8 0 1 D
 R r 1937 o - O Su>=8 0 0 S
 R r 1938 o - O Su>=1 0 0 S
 R r 1939 1941 - O Su>=8 0 0 S
 R r 1942 o - F 9 2 1 W
 R r 1945 o - Au 14 23u 1 P
 R r 1945 o - S lastSu 2 0 S
 R r 1946 o - Ap Su>=8 2 1 D
 R r 1946 o - O Su>=8 2 0 S
 R r 1947 1957 - Ap lastSu 2 1 D
 R r 1947 1957 - S lastSu 2 0 S
 R r 1959 o - Ap lastSu 2 1 D
 R r 1959 o - O lastSu 2 0 S
 R Sw 1957 o - Ap lastSu 2 1 D
 R Sw 1957 o - O lastSu 2 0 S
 R Sw 1959 1961 - Ap lastSu 2 1 D
 R Sw 1959 o - O lastSu 2 0 S
 R Sw 1960 1961 - S lastSu 2 0 S

Z America/Regina -6:58:36 - LMT 1905 S
-7 r M%sT 1960 Ap lastSu 2
-6 - CST
Z America/Swift_Current -7:11:20 - LMT 1905 S
-7 C M%sT 1946 Ap lastSu 2
-7 r M%sT 1950
-7 Sw M%sT 1972 Ap lastSu 2
-6 - CST
R Ed 1918 1919 - Ap Su>=8 2 1 D
R Ed 1918 o - O 27 2 0 S
R Ed 1919 o - May 27 2 0 S
R Ed 1920 1923 - Ap lastSu 2 1 D
R Ed 1920 o - O lastSu 2 0 S
R Ed 1921 1923 - S lastSu 2 0 S
R Ed 1942 o - F 9 2 1 W
R Ed 1945 o - Au 14 23u 1 P
R Ed 1945 o - S lastSu 2 0 S
R Ed 1947 o - Ap lastSu 2 1 D
R Ed 1947 o - S lastSu 2 0 S
R Ed 1967 o - Ap lastSu 2 1 D
R Ed 1967 o - O lastSu 2 0 S
R Ed 1969 o - Ap lastSu 2 1 D
R Ed 1969 o - O lastSu 2 0 S
R Ed 1972 1986 - Ap lastSu 2 1 D
R Ed 1972 2006 - O lastSu 2 0 S
Z America/Edmonton -7:33:52 - LMT 1906 S
-7 Ed M%sT 1987
-7 C M%sT
R Va 1918 o - Ap 14 2 1 D
R Va 1918 o - O 27 2 0 S
R Va 1942 o - F 9 2 1 W
R Va 1945 o - Au 14 23u 1 P
R Va 1945 o - S 30 2 0 S
R Va 1946 1986 - Ap lastSu 2 1 D
R Va 1946 o - O 13 2 0 S
R Va 1947 1961 - S lastSu 2 0 S
R Va 1962 2006 - O lastSu 2 0 S
Z America/Vancouver -8:12:28 - LMT 1884
-8 Va P%sT 1987
-8 C P%sT
Z America/Dawson_Creek -8:0:56 - LMT 1884
-8 C P%sT 1947
-8 Va P%sT 1972 Au 30 2
-7 - MST
Z America/Fort_Nelson -8:10:47 - LMT 1884
-8 Va P%sT 1946
-8 - PST 1947
-8 Va P%sT 1987

-8 C P%ST 2015 Mar 8 2
-7 - MST
Z America/Creston -7:46:4 - LMT 1884
-7 - MST 1916 O
-8 - PST 1918 Jun 2
-7 - MST
R Y 1918 o - Ap 14 2 1 D
R Y 1918 o - O 27 2 0 S
R Y 1919 o - May 25 2 1 D
R Y 1919 o - N 1 0 0 S
R Y 1942 o - F 9 2 1 W
R Y 1945 o - Au 14 23u 1 P
R Y 1945 o - S 30 2 0 S
R Y 1965 o - Ap lastSu 0 2 DD
R Y 1965 o - O lastSu 2 0 S
R Y 1980 1986 - Ap lastSu 2 1 D
R Y 1980 2006 - O lastSu 2 0 S
R Y 1987 2006 - Ap Su>=1 2 1 D
Z America/Pangnirtung 0 - -00 1921
-4 Y A%ST 1995 Ap Su>=1 2
-5 C E%ST 1999 O 31 2
-6 C C%ST 2000 O 29 2
-5 C E%ST
Z America/Iqaluit 0 - -00 1942 Au
-5 Y E%ST 1999 O 31 2
-6 C C%ST 2000 O 29 2
-5 C E%ST
Z America/Resolute 0 - -00 1947 Au 31
-6 Y C%ST 2000 O 29 2
-5 - EST 2001 Ap 1 3
-6 C C%ST 2006 O 29 2
-5 - EST 2007 Mar 11 3
-6 C C%ST
Z America/Rankin_Inlet 0 - -00 1957
-6 Y C%ST 2000 O 29 2
-5 - EST 2001 Ap 1 3
-6 C C%ST
Z America/Cambridge_Bay 0 - -00 1920
-7 Y M%ST 1999 O 31 2
-6 C C%ST 2000 O 29 2
-5 - EST 2000 N 5
-6 - CST 2001 Ap 1 3
-7 C M%ST
Z America/Yellowknife 0 - -00 1935
-7 Y M%ST 1980
-7 C M%ST
Z America/Inuvik 0 - -00 1953
-8 Y P%ST 1979 Ap lastSu 2

-7 Y M%sT 1980
-7 C M%sT
Z America/Whitehorse -9:0:12 - LMT 1900 Au 20
-9 Y Y%sT 1967 May 28
-8 Y P%sT 1980
-8 C P%sT
Z America/Dawson -9:17:40 - LMT 1900 Au 20
-9 Y Y%sT 1973 O 28
-8 Y P%sT 1980
-8 C P%sT
R m 1939 o - F 5 0 1 D
R m 1939 o - Jun 25 0 0 S
R m 1940 o - D 9 0 1 D
R m 1941 o - Ap 1 0 0 S
R m 1943 o - D 16 0 1 W
R m 1944 o - May 1 0 0 S
R m 1950 o - F 12 0 1 D
R m 1950 o - Jul 30 0 0 S
R m 1996 2000 - Ap Su>=1 2 1 D
R m 1996 2000 - O lastSu 2 0 S
R m 2001 o - May Su>=1 2 1 D
R m 2001 o - S lastSu 2 0 S
R m 2002 ma - Ap Su>=1 2 1 D
R m 2002 ma - O lastSu 2 0 S
Z America/Cancun -5:47:4 - LMT 1922 Ja 1 0:12:56
-6 - CST 1981 D 23
-5 m E%sT 1998 Au 2 2
-6 m C%sT 2015 F 1 2
-5 - EST
Z America/Merida -5:58:28 - LMT 1922 Ja 1 0:1:32
-6 - CST 1981 D 23
-5 - EST 1982 D 2
-6 m C%sT
Z America/Matamoros -6:40 - LMT 1921 D 31 23:20
-6 - CST 1988
-6 u C%sT 1989
-6 m C%sT 2010
-6 u C%sT
Z America/Monterrey -6:41:16 - LMT 1921 D 31 23:18:44
-6 - CST 1988
-6 u C%sT 1989
-6 m C%sT
Z America/Mexico_City -6:36:36 - LMT 1922 Ja 1 0:23:24
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15
-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap

-6 m C%ST 2001 S 30 2
-6 - CST 2002 F 20
-6 m C%ST
Z America/Ojinaga -6:57:40 - LMT 1922 Ja 1 0:2:20
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15
-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap
-6 - CST 1996
-6 m C%ST 1998
-6 - CST 1998 Ap Su>=1 3
-7 m M%ST 2010
-7 u M%ST
Z America/Chihuahua -7:4:20 - LMT 1921 D 31 23:55:40
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15
-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap
-6 - CST 1996
-6 m C%ST 1998
-6 - CST 1998 Ap Su>=1 3
-7 m M%ST
Z America/Hermosillo -7:23:52 - LMT 1921 D 31 23:36:8
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15
-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap
-6 - CST 1942 Ap 24
-7 - MST 1949 Ja 14
-8 - PST 1970
-7 m M%ST 1999
-7 - MST
Z America/Mazatlan -7:5:40 - LMT 1921 D 31 23:54:20
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15
-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap
-6 - CST 1942 Ap 24
-7 - MST 1949 Ja 14
-8 - PST 1970
-7 m M%ST
Z America/Bahia_Banderas -7:1 - LMT 1921 D 31 23:59
-7 - MST 1927 Jun 10 23
-6 - CST 1930 N 15

-7 - MST 1931 May 1 23
-6 - CST 1931 O
-7 - MST 1932 Ap
-6 - CST 1942 Ap 24
-7 - MST 1949 Ja 14
-8 - PST 1970
-7 m M%sT 2010 Ap 4 2
-6 m C%sT
Z America/Tijuana -7:48:4 - LMT 1922 Ja 1 0:11:56
-7 - MST 1924
-8 - PST 1927 Jun 10 23
-7 - MST 1930 N 15
-8 - PST 1931 Ap
-8 1 PDT 1931 S 30
-8 - PST 1942 Ap 24
-8 1 PWT 1945 Au 14 23u
-8 1 PPT 1945 N 12
-8 - PST 1948 Ap 5
-8 1 PDT 1949 Ja 14
-8 - PST 1954
-8 CA P%sT 1961
-8 - PST 1976
-8 u P%sT 1996
-8 m P%sT 2001
-8 u P%sT 2002 F 20
-8 m P%sT 2010
-8 u P%sT
R BS 1964 1975 - O lastSu 2 0 S
R BS 1964 1975 - Ap lastSu 2 1 D
Z America/Nassau -5:9:30 - LMT 1912 Mar 2
-5 BS E%sT 1976
-5 u E%sT
R BB 1977 o - Jun 12 2 1 D
R BB 1977 1978 - O Su>=1 2 0 S
R BB 1978 1980 - Ap Su>=15 2 1 D
R BB 1979 o - S 30 2 0 S
R BB 1980 o - S 25 2 0 S
Z America/Barbados -3:58:29 - LMT 1924
-3:58:29 - BMT 1932
-4 BB A%sT
R BZ 1918 1942 - O Su>=2 0 0:30 -0530
R BZ 1919 1943 - F Su>=9 0 0 CST
R BZ 1973 o - D 5 0 1 CDT
R BZ 1974 o - F 9 0 0 CST
R BZ 1982 o - D 18 0 1 CDT
R BZ 1983 o - F 12 0 0 CST
Z America/Belize -5:52:48 - LMT 1912 Ap
-6 BZ %s

Z Atlantic/Bermuda -4:19:18 - LMT 1930 Ja 1 2

-4 - AST 1974 Ap 28 2

-4 C A%ST 1976

-4 u A%ST

R CR 1979 1980 - F lastSu 0 1 D

R CR 1979 1980 - Jun Su>=1 0 0 S

R CR 1991 1992 - Ja Sa>=15 0 1 D

R CR 1991 o - Jul 1 0 0 S

R CR 1992 o - Mar 15 0 0 S

Z America/Costa_Rica -5:36:13 - LMT 1890

-5:36:13 - SJMT 1921 Ja 15

-6 CR C%ST

R Q 1928 o - Jun 10 0 1 D

R Q 1928 o - O 10 0 0 S

R Q 1940 1942 - Jun Su>=1 0 1 D

R Q 1940 1942 - S Su>=1 0 0 S

R Q 1945 1946 - Jun Su>=1 0 1 D

R Q 1945 1946 - S Su>=1 0 0 S

R Q 1965 o - Jun 1 0 1 D

R Q 1965 o - S 30 0 0 S

R Q 1966 o - May 29 0 1 D

R Q 1966 o - O 2 0 0 S

R Q 1967 o - Ap 8 0 1 D

R Q 1967 1968 - S Su>=8 0 0 S

R Q 1968 o - Ap 14 0 1 D

R Q 1969 1977 - Ap lastSu 0 1 D

R Q 1969 1971 - O lastSu 0 0 S

R Q 1972 1974 - O 8 0 0 S

R Q 1975 1977 - O lastSu 0 0 S

R Q 1978 o - May 7 0 1 D

R Q 1978 1990 - O Su>=8 0 0 S

R Q 1979 1980 - Mar Su>=15 0 1 D

R Q 1981 1985 - May Su>=5 0 1 D

R Q 1986 1989 - Mar Su>=14 0 1 D

R Q 1990 1997 - Ap Su>=1 0 1 D

R Q 1991 1995 - O Su>=8 0s 0 S

R Q 1996 o - O 6 0s 0 S

R Q 1997 o - O 12 0s 0 S

R Q 1998 1999 - Mar lastSu 0s 1 D

R Q 1998 2003 - O lastSu 0s 0 S

R Q 2000 2003 - Ap Su>=1 0s 1 D

R Q 2004 o - Mar lastSu 0s 1 D

R Q 2006 2010 - O lastSu 0s 0 S

R Q 2007 o - Mar Su>=8 0s 1 D

R Q 2008 o - Mar Su>=15 0s 1 D

R Q 2009 2010 - Mar Su>=8 0s 1 D

R Q 2011 o - Mar Su>=15 0s 1 D

R Q 2011 o - N 13 0s 0 S

R Q 2012 o - Ap 1 0s 1 D
R Q 2012 ma - N Su>=1 0s 0 S
R Q 2013 ma - Mar Su>=8 0s 1 D
Z America/Havana -5:29:28 - LMT 1890
-5:29:36 - HMT 1925 Jul 19 12
-5 Q C%sT
R DO 1966 o - O 30 0 1 EDT
R DO 1967 o - F 28 0 0 EST
R DO 1969 1973 - O lastSu 0 0:30 -0430
R DO 1970 o - F 21 0 0 EST
R DO 1971 o - Ja 20 0 0 EST
R DO 1972 1974 - Ja 21 0 0 EST
Z America/Santo_Domingo -4:39:36 - LMT 1890
-4:40 - SDMT 1933 Ap 1 12
-5 DO %s 1974 O 27
-4 - AST 2000 O 29 2
-5 u E%sT 2000 D 3 1
-4 - AST
R SV 1987 1988 - May Su>=1 0 1 D
R SV 1987 1988 - S lastSu 0 0 S
Z America/El_Salvador -5:56:48 - LMT 1921
-6 SV C%sT
R GT 1973 o - N 25 0 1 D
R GT 1974 o - F 24 0 0 S
R GT 1983 o - May 21 0 1 D
R GT 1983 o - S 22 0 0 S
R GT 1991 o - Mar 23 0 1 D
R GT 1991 o - S 7 0 0 S
R GT 2006 o - Ap 30 0 1 D
R GT 2006 o - O 1 0 0 S
Z America/Guatemala -6:2:4 - LMT 1918 O 5
-6 GT C%sT
R HT 1983 o - May 8 0 1 D
R HT 1984 1987 - Ap lastSu 0 1 D
R HT 1983 1987 - O lastSu 0 0 S
R HT 1988 1997 - Ap Su>=1 1s 1 D
R HT 1988 1997 - O lastSu 1s 0 S
R HT 2005 2006 - Ap Su>=1 0 1 D
R HT 2005 2006 - O lastSu 0 0 S
R HT 2012 2015 - Mar Su>=8 2 1 D
R HT 2012 2015 - N Su>=1 2 0 S
R HT 2017 ma - Mar Su>=8 2 1 D
R HT 2017 ma - N Su>=1 2 0 S
Z America/Port-au-Prince -4:49:20 - LMT 1890
-4:49 - PPMT 1917 Ja 24 12
-5 HT E%sT
R HN 1987 1988 - May Su>=1 0 1 D
R HN 1987 1988 - S lastSu 0 0 S

R HN 2006 o - May Su>=1 0 1 D
R HN 2006 o - Au M>=1 0 0 S
Z America/Tegucigalpa -5:48:52 - LMT 1921 Ap
-6 HN C%sT
Z America/Jamaica -5:7:10 - LMT 1890
-5:7:10 - KMT 1912 F
-5 - EST 1974
-5 u E%sT 1984
-5 - EST
Z America/Martinique -4:4:20 - LMT 1890
-4:4:20 - FFMT 1911 May
-4 - AST 1980 Ap 6
-4 1 ADT 1980 S 28
-4 - AST
R NI 1979 1980 - Mar Su>=16 0 1 D
R NI 1979 1980 - Jun M>=23 0 0 S
R NI 2005 o - Ap 10 0 1 D
R NI 2005 o - O Su>=1 0 0 S
R NI 2006 o - Ap 30 2 1 D
R NI 2006 o - O Su>=1 1 0 S
Z America/Managua -5:45:8 - LMT 1890
-5:45:12 - MMT 1934 Jun 23
-6 - CST 1973 May
-5 - EST 1975 F 16
-6 NI C%sT 1992 Ja 1 4
-5 - EST 1992 S 24
-6 - CST 1993
-5 - EST 1997
-6 NI C%sT
Z America/Panama -5:18:8 - LMT 1890
-5:19:36 - CMT 1908 Ap 22
-5 - EST
L America/Panama America/Cayman
Z America/Puerto_Rico -4:24:25 - LMT 1899 Mar 28 12
-4 - AST 1942 May 3
-4 u A%sT 1946
-4 - AST
Z America/Miquelon -3:44:40 - LMT 1911 May 15
-4 - AST 1980 May
-3 - -03 1987
-3 C -03/-02
Z America/Grand_Turk -4:44:32 - LMT 1890
-5:7:10 - KMT 1912 F
-5 - EST 1979
-5 u E%sT 2015 N Su>=1 2
-4 - AST 2018 Mar 11 3
-5 u E%sT
R A 1930 o - D 1 0 1 -

R A 1931 o - Ap 1 0 0 -
R A 1931 o - O 15 0 1 -
R A 1932 1940 - Mar 1 0 0 -
R A 1932 1939 - N 1 0 1 -
R A 1940 o - Jul 1 0 1 -
R A 1941 o - Jun 15 0 0 -
R A 1941 o - O 15 0 1 -
R A 1943 o - Au 1 0 0 -
R A 1943 o - O 15 0 1 -
R A 1946 o - Mar 1 0 0 -
R A 1946 o - O 1 0 1 -
R A 1963 o - O 1 0 0 -
R A 1963 o - D 15 0 1 -
R A 1964 1966 - Mar 1 0 0 -
R A 1964 1966 - O 15 0 1 -
R A 1967 o - Ap 2 0 0 -
R A 1967 1968 - O Su>=1 0 1 -
R A 1968 1969 - Ap Su>=1 0 0 -
R A 1974 o - Ja 23 0 1 -
R A 1974 o - May 1 0 0 -
R A 1988 o - D 1 0 1 -
R A 1989 1993 - Mar Su>=1 0 0 -
R A 1989 1992 - O Su>=15 0 1 -
R A 1999 o - O Su>=1 0 1 -
R A 2000 o - Mar 3 0 0 -
R A 2007 o - D 30 0 1 -
R A 2008 2009 - Mar Su>=15 0 0 -
R A 2008 o - O Su>=15 0 1 -
Z America/Argentina/Buenos_Aires -3:53:48 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 A -03/-02
Z America/Argentina/Cordoba -4:16:48 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1991 Mar 3
-4 - -04 1991 O 20
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 A -03/-02
Z America/Argentina/Salta -4:21:40 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5

-3 A -03/-02 1991 Mar 3
-4 - -04 1991 O 20
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/Tucuman -4:20:52 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1991 Mar 3
-4 - -04 1991 O 20
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 Jun
-4 - -04 2004 Jun 13
-3 A -03/-02
Z America/Argentina/La_Rioja -4:27:24 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1991 Mar
-4 - -04 1991 May 7
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 Jun
-4 - -04 2004 Jun 20
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/San_Juan -4:34:4 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1991 Mar
-4 - -04 1991 May 7
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 May 31
-4 - -04 2004 Jul 25
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/Jujuy -4:21:12 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1990 Mar 4
-4 - -04 1990 O 28
-4 1 -03 1991 Mar 17

-4 - -04 1991 O 6
-3 1 -02 1992
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/Catamarca -4:23:8 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1991 Mar 3
-4 - -04 1991 O 20
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 Jun
-4 - -04 2004 Jun 20
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/Mendoza -4:35:16 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1990 Mar 4
-4 - -04 1990 O 15
-4 1 -03 1991 Mar
-4 - -04 1991 O 15
-4 1 -03 1992 Mar
-4 - -04 1992 O 18
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 May 23
-4 - -04 2004 S 26
-3 A -03/-02 2008 O 18
-3 - -03
R Sa 2008 2009 - Mar Su>=8 0 0 -
R Sa 2007 2008 - O Su>=8 0 1 -
Z America/Argentina/San_Luis -4:25:24 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1990
-3 1 -02 1990 Mar 14
-4 - -04 1990 O 15
-4 1 -03 1991 Mar
-4 - -04 1991 Jun
-3 - -03 1999 O 3
-4 1 -03 2000 Mar 3
-3 - -03 2004 May 31

-4 - -04 2004 Jul 25
-3 A -03/-02 2008 Ja 21
-4 Sa -04/-03 2009 O 11
-3 - -03
Z America/Argentina/Rio_Gallegos -4:36:52 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 Jun
-4 - -04 2004 Jun 20
-3 A -03/-02 2008 O 18
-3 - -03
Z America/Argentina/Ushuaia -4:33:12 - LMT 1894 O 31
-4:16:48 - CMT 1920 May
-4 - -04 1930 D
-4 A -04/-03 1969 O 5
-3 A -03/-02 1999 O 3
-4 A -04/-03 2000 Mar 3
-3 - -03 2004 May 30
-4 - -04 2004 Jun 20
-3 A -03/-02 2008 O 18
-3 - -03
L America/Curacao America/Aruba
Z America/La_Paz -4:32:36 - LMT 1890
-4:32:36 - CMT 1931 O 15
-4:32:36 1 BST 1932 Mar 21
-4 - -04
R B 1931 o - O 3 11 1 -
R B 1932 1933 - Ap 1 0 0 -
R B 1932 o - O 3 0 1 -
R B 1949 1952 - D 1 0 1 -
R B 1950 o - Ap 16 1 0 -
R B 1951 1952 - Ap 1 0 0 -
R B 1953 o - Mar 1 0 0 -
R B 1963 o - D 9 0 1 -
R B 1964 o - Mar 1 0 0 -
R B 1965 o - Ja 31 0 1 -
R B 1965 o - Mar 31 0 0 -
R B 1965 o - D 1 0 1 -
R B 1966 1968 - Mar 1 0 0 -
R B 1966 1967 - N 1 0 1 -
R B 1985 o - N 2 0 1 -
R B 1986 o - Mar 15 0 0 -
R B 1986 o - O 25 0 1 -
R B 1987 o - F 14 0 0 -
R B 1987 o - O 25 0 1 -

R B 1988 o - F 7 0 0 -
R B 1988 o - O 16 0 1 -
R B 1989 o - Ja 29 0 0 -
R B 1989 o - O 15 0 1 -
R B 1990 o - F 11 0 0 -
R B 1990 o - O 21 0 1 -
R B 1991 o - F 17 0 0 -
R B 1991 o - O 20 0 1 -
R B 1992 o - F 9 0 0 -
R B 1992 o - O 25 0 1 -
R B 1993 o - Ja 31 0 0 -
R B 1993 1995 - O Su>=11 0 1 -
R B 1994 1995 - F Su>=15 0 0 -
R B 1996 o - F 11 0 0 -
R B 1996 o - O 6 0 1 -
R B 1997 o - F 16 0 0 -
R B 1997 o - O 6 0 1 -
R B 1998 o - Mar 1 0 0 -
R B 1998 o - O 11 0 1 -
R B 1999 o - F 21 0 0 -
R B 1999 o - O 3 0 1 -
R B 2000 o - F 27 0 0 -
R B 2000 2001 - O Su>=8 0 1 -
R B 2001 2006 - F Su>=15 0 0 -
R B 2002 o - N 3 0 1 -
R B 2003 o - O 19 0 1 -
R B 2004 o - N 2 0 1 -
R B 2005 o - O 16 0 1 -
R B 2006 o - N 5 0 1 -
R B 2007 o - F 25 0 0 -
R B 2007 o - O Su>=8 0 1 -
R B 2008 2017 - O Su>=15 0 1 -
R B 2008 2011 - F Su>=15 0 0 -
R B 2012 o - F Su>=22 0 0 -
R B 2013 2014 - F Su>=15 0 0 -
R B 2015 o - F Su>=22 0 0 -
R B 2016 2019 - F Su>=15 0 0 -
R B 2018 o - N Su>=1 0 1 -
Z America/Noronha -2:9:40 - LMT 1914
-2 B -02/-01 1990 S 17
-2 - -02 1999 S 30
-2 B -02/-01 2000 O 15
-2 - -02 2001 S 13
-2 B -02/-01 2002 O
-2 - -02
Z America/Belem -3:13:56 - LMT 1914
-3 B -03/-02 1988 S 12
-3 - -03

Z America/Santarem -3:38:48 - LMT 1914

-4 B -04/-03 1988 S 12

-4 - -04 2008 Jun 24

-3 - -03

Z America/Fortaleza -2:34 - LMT 1914

-3 B -03/-02 1990 S 17

-3 - -03 1999 S 30

-3 B -03/-02 2000 O 22

-3 - -03 2001 S 13

-3 B -03/-02 2002 O

-3 - -03

Z America/Recife -2:19:36 - LMT 1914

-3 B -03/-02 1990 S 17

-3 - -03 1999 S 30

-3 B -03/-02 2000 O 15

-3 - -03 2001 S 13

-3 B -03/-02 2002 O

-3 - -03

Z America/Araguaina -3:12:48 - LMT 1914

-3 B -03/-02 1990 S 17

-3 - -03 1995 S 14

-3 B -03/-02 2003 S 24

-3 - -03 2012 O 21

-3 B -03/-02 2013 S

-3 - -03

Z America/Maceio -2:22:52 - LMT 1914

-3 B -03/-02 1990 S 17

-3 - -03 1995 O 13

-3 B -03/-02 1996 S 4

-3 - -03 1999 S 30

-3 B -03/-02 2000 O 22

-3 - -03 2001 S 13

-3 B -03/-02 2002 O

-3 - -03

Z America/Bahia -2:34:4 - LMT 1914

-3 B -03/-02 2003 S 24

-3 - -03 2011 O 16

-3 B -03/-02 2012 O 21

-3 - -03

Z America/Sao_Paulo -3:6:28 - LMT 1914

-3 B -03/-02 1963 O 23

-3 1 -02 1964

-3 B -03/-02

Z America/Campo_Grande -3:38:28 - LMT 1914

-4 B -04/-03

Z America/Cuiaba -3:44:20 - LMT 1914

-4 B -04/-03 2003 S 24

-4 - -04 2004 O

-4 B -04/-03
Z America/Porto_Velho -4:15:36 - LMT 1914
-4 B -04/-03 1988 S 12
-4 - -04
Z America/Boa_Vista -4:2:40 - LMT 1914
-4 B -04/-03 1988 S 12
-4 - -04 1999 S 30
-4 B -04/-03 2000 O 15
-4 - -04
Z America/Manaus -4:0:4 - LMT 1914
-4 B -04/-03 1988 S 12
-4 - -04 1993 S 28
-4 B -04/-03 1994 S 22
-4 - -04
Z America/Eirunepe -4:39:28 - LMT 1914
-5 B -05/-04 1988 S 12
-5 - -05 1993 S 28
-5 B -05/-04 1994 S 22
-5 - -05 2008 Jun 24
-4 - -04 2013 N 10
-5 - -05
Z America/Rio_Branco -4:31:12 - LMT 1914
-5 B -05/-04 1988 S 12
-5 - -05 2008 Jun 24
-4 - -04 2013 N 10
-5 - -05
R x 1927 1931 - S 1 0 1 -
R x 1928 1932 - Ap 1 0 0 -
R x 1968 o - N 3 4u 1 -
R x 1969 o - Mar 30 3u 0 -
R x 1969 o - N 23 4u 1 -
R x 1970 o - Mar 29 3u 0 -
R x 1971 o - Mar 14 3u 0 -
R x 1970 1972 - O Su>=9 4u 1 -
R x 1972 1986 - Mar Su>=9 3u 0 -
R x 1973 o - S 30 4u 1 -
R x 1974 1987 - O Su>=9 4u 1 -
R x 1987 o - Ap 12 3u 0 -
R x 1988 1990 - Mar Su>=9 3u 0 -
R x 1988 1989 - O Su>=9 4u 1 -
R x 1990 o - S 16 4u 1 -
R x 1991 1996 - Mar Su>=9 3u 0 -
R x 1991 1997 - O Su>=9 4u 1 -
R x 1997 o - Mar 30 3u 0 -
R x 1998 o - Mar Su>=9 3u 0 -
R x 1998 o - S 27 4u 1 -
R x 1999 o - Ap 4 3u 0 -
R x 1999 2010 - O Su>=9 4u 1 -

R x 2000 2007 - Mar Su>=9 3u 0 -
R x 2008 o - Mar 30 3u 0 -
R x 2009 o - Mar Su>=9 3u 0 -
R x 2010 o - Ap Su>=1 3u 0 -
R x 2011 o - May Su>=2 3u 0 -
R x 2011 o - Au Su>=16 4u 1 -
R x 2012 2014 - Ap Su>=23 3u 0 -
R x 2012 2014 - S Su>=2 4u 1 -
R x 2016 2018 - May Su>=9 3u 0 -
R x 2016 2018 - Au Su>=9 4u 1 -
R x 2019 ma - Ap Su>=2 3u 0 -
R x 2019 ma - S Su>=2 4u 1 -
Z America/Santiago -4:42:46 - LMT 1890
-4:42:46 - SMT 1910 Ja 10
-5 - -05 1916 Jul
-4:42:46 - SMT 1918 S 10
-4 - -04 1919 Jul
-4:42:46 - SMT 1927 S
-5 x -05/-04 1932 S
-4 - -04 1942 Jun
-5 - -05 1942 Au
-4 - -04 1946 Jul 15
-4 1 -03 1946 S
-4 - -04 1947 Ap
-5 - -05 1947 May 21 23
-4 x -04/-03
Z America/Punta_Arenas -4:43:40 - LMT 1890
-4:42:46 - SMT 1910 Ja 10
-5 - -05 1916 Jul
-4:42:46 - SMT 1918 S 10
-4 - -04 1919 Jul
-4:42:46 - SMT 1927 S
-5 x -05/-04 1932 S
-4 - -04 1942 Jun
-5 - -05 1942 Au
-4 - -04 1947 Ap
-5 - -05 1947 May 21 23
-4 x -04/-03 2016 D 4
-3 - -03
Z Pacific/Easter -7:17:28 - LMT 1890
-7:17:28 - EMT 1932 S
-7 x -07/-06 1982 Mar 14 3u
-6 x -06/-05
Z Antarctica/Palmer 0 - -00 1965
-4 A -04/-03 1969 O 5
-3 A -03/-02 1982 May
-4 x -04/-03 2016 D 4
-3 - -03

R CO 1992 o - May 3 0 1 -
R CO 1993 o - Ap 4 0 0 -
Z America/Bogota -4:56:16 - LMT 1884 Mar 13
-4:56:16 - BMT 1914 N 23
-5 CO -05/-04
Z America/Curacao -4:35:47 - LMT 1912 F 12
-4:30 - -0430 1965
-4 - AST
L America/Curacao America/Lower_Princes
L America/Curacao America/Kralendijk
R EC 1992 o - N 28 0 1 -
R EC 1993 o - F 5 0 0 -
Z America/Guayaquil -5:19:20 - LMT 1890
-5:14 - QMT 1931
-5 EC -05/-04
Z Pacific/Galapagos -5:58:24 - LMT 1931
-5 - -05 1986
-6 EC -06/-05
R FK 1937 1938 - S lastSu 0 1 -
R FK 1938 1942 - Mar Su>=19 0 0 -
R FK 1939 o - O 1 0 1 -
R FK 1940 1942 - S lastSu 0 1 -
R FK 1943 o - Ja 1 0 0 -
R FK 1983 o - S lastSu 0 1 -
R FK 1984 1985 - Ap lastSu 0 0 -
R FK 1984 o - S 16 0 1 -
R FK 1985 2000 - S Su>=9 0 1 -
R FK 1986 2000 - Ap Su>=16 0 0 -
R FK 2001 2010 - Ap Su>=15 2 0 -
R FK 2001 2010 - S Su>=1 2 1 -
Z Atlantic/Stanley -3:51:24 - LMT 1890
-3:51:24 - SMT 1912 Mar 12
-4 FK -04/-03 1983 May
-3 FK -03/-02 1985 S 15
-4 FK -04/-03 2010 S 5 2
-3 - -03
Z America/Cayenne -3:29:20 - LMT 1911 Jul
-4 - -04 1967 O
-3 - -03
Z America/Guyana -3:52:40 - LMT 1915 Mar
-3:45 - -0345 1975 Jul 31
-3 - -03 1991
-4 - -04
R y 1975 1988 - O 1 0 1 -
R y 1975 1978 - Mar 1 0 0 -
R y 1979 1991 - Ap 1 0 0 -
R y 1989 o - O 22 0 1 -
R y 1990 o - O 1 0 1 -

R y 1991 o - O 6 0 1 -
R y 1992 o - Mar 1 0 0 -
R y 1992 o - O 5 0 1 -
R y 1993 o - Mar 31 0 0 -
R y 1993 1995 - O 1 0 1 -
R y 1994 1995 - F lastSu 0 0 -
R y 1996 o - Mar 1 0 0 -
R y 1996 2001 - O Su>=1 0 1 -
R y 1997 o - F lastSu 0 0 -
R y 1998 2001 - Mar Su>=1 0 0 -
R y 2002 2004 - Ap Su>=1 0 0 -
R y 2002 2003 - S Su>=1 0 1 -
R y 2004 2009 - O Su>=15 0 1 -
R y 2005 2009 - Mar Su>=8 0 0 -
R y 2010 ma - O Su>=1 0 1 -
R y 2010 2012 - Ap Su>=8 0 0 -
R y 2013 ma - Mar Su>=22 0 0 -
Z America/Asuncion -3:50:40 - LMT 1890
-3:50:40 - AMT 1931 O 10
-4 - -04 1972 O
-3 - -03 1974 Ap
-4 y -04/-03
R PE 1938 o - Ja 1 0 1 -
R PE 1938 o - Ap 1 0 0 -
R PE 1938 1939 - S lastSu 0 1 -
R PE 1939 1940 - Mar Su>=24 0 0 -
R PE 1986 1987 - Ja 1 0 1 -
R PE 1986 1987 - Ap 1 0 0 -
R PE 1990 o - Ja 1 0 1 -
R PE 1990 o - Ap 1 0 0 -
R PE 1994 o - Ja 1 0 1 -
R PE 1994 o - Ap 1 0 0 -
Z America/Lima -5:8:12 - LMT 1890
-5:8:36 - LMT 1908 Jul 28
-5 PE -05/-04
Z Atlantic/South_Georgia -2:26:8 - LMT 1890
-2 - -02
Z America/Paramaribo -3:40:40 - LMT 1911
-3:40:52 - PMT 1935
-3:40:36 - PMT 1945 O
-3:30 - -0330 1984 O
-3 - -03
Z America/Port_of_Spain -4:6:4 - LMT 1912 Mar 2
-4 - AST
L America/Port_of_Spain America/Anguilla
L America/Port_of_Spain America/Antigua
L America/Port_of_Spain America/Dominica
L America/Port_of_Spain America/Grenada

L America/Port_of_Spain America/Guadeloupe
L America/Port_of_Spain America/Marigot
L America/Port_of_Spain America/Montserrat
L America/Port_of_Spain America/St_Barthelemy
L America/Port_of_Spain America/St_Kitts
L America/Port_of_Spain America/St_Lucia
L America/Port_of_Spain America/St_Thomas
L America/Port_of_Spain America/St_Vincent
L America/Port_of_Spain America/Tortola
R U 1923 1925 - O 1 0 0:30 -
R U 1924 1926 - Ap 1 0 0 -
R U 1933 1938 - O lastSu 0 0:30 -
R U 1934 1941 - Mar lastSa 24 0 -
R U 1939 o - O 1 0 0:30 -
R U 1940 o - O 27 0 0:30 -
R U 1941 o - Au 1 0 0:30 -
R U 1942 o - D 14 0 0:30 -
R U 1943 o - Mar 14 0 0 -
R U 1959 o - May 24 0 0:30 -
R U 1959 o - N 15 0 0 -
R U 1960 o - Ja 17 0 1 -
R U 1960 o - Mar 6 0 0 -
R U 1965 o - Ap 4 0 1 -
R U 1965 o - S 26 0 0 -
R U 1968 o - May 27 0 0:30 -
R U 1968 o - D 1 0 0 -
R U 1970 o - Ap 25 0 1 -
R U 1970 o - Jun 14 0 0 -
R U 1972 o - Ap 23 0 1 -
R U 1972 o - Jul 16 0 0 -
R U 1974 o - Ja 13 0 1:30 -
R U 1974 o - Mar 10 0 0:30 -
R U 1974 o - S 1 0 0 -
R U 1974 o - D 22 0 1 -
R U 1975 o - Mar 30 0 0 -
R U 1976 o - D 19 0 1 -
R U 1977 o - Mar 6 0 0 -
R U 1977 o - D 4 0 1 -
R U 1978 1979 - Mar Su>=1 0 0 -
R U 1978 o - D 17 0 1 -
R U 1979 o - Ap 29 0 1 -
R U 1980 o - Mar 16 0 0 -
R U 1987 o - D 14 0 1 -
R U 1988 o - F 28 0 0 -
R U 1988 o - D 11 0 1 -
R U 1989 o - Mar 5 0 0 -
R U 1989 o - O 29 0 1 -
R U 1990 o - F 25 0 0 -

R U 1990 1991 - O Su>=21 0 1 -
R U 1991 1992 - Mar Su>=1 0 0 -
R U 1992 o - O 18 0 1 -
R U 1993 o - F 28 0 0 -
R U 2004 o - S 19 0 1 -
R U 2005 o - Mar 27 2 0 -
R U 2005 o - O 9 2 1 -
R U 2006 2015 - Mar Su>=8 2 0 -
R U 2006 2014 - O Su>=1 2 1 -
Z America/Montevideo -3:44:51 - LMT 1908 Jun 10
-3:44:51 - MMT 1920 May
-4 - -04 1923 O
-3:30 U -0330/-03 1942 D 14
-3 U -03/-0230 1960
-3 U -03/-02 1968
-3 U -03/-0230 1970
-3 U -03/-02 1974
-3 U -03/-0130 1974 Mar 10
-3 U -03/-0230 1974 D 22
-3 U -03/-02
Z America/Caracas -4:27:44 - LMT 1890
-4:27:40 - CMT 1912 F 12
-4:30 - -0430 1965
-4 - -04 2007 D 9 3
-4:30 - -0430 2016 May 1 2:30
-4 - -04
Z Etc/GMT 0 - GMT
Z Etc/UTC 0 - UTC
L Etc/GMT GMT
L Etc/UTC Etc/Universal
L Etc/UTC Etc/Zulu
L Etc/GMT Etc/Greenwich
L Etc/GMT Etc/GMT-0
L Etc/GMT Etc/GMT+0
L Etc/GMT Etc/GMT0
Z Etc/GMT-14 14 - +14
Z Etc/GMT-13 13 - +13
Z Etc/GMT-12 12 - +12
Z Etc/GMT-11 11 - +11
Z Etc/GMT-10 10 - +10
Z Etc/GMT-9 9 - +09
Z Etc/GMT-8 8 - +08
Z Etc/GMT-7 7 - +07
Z Etc/GMT-6 6 - +06
Z Etc/GMT-5 5 - +05
Z Etc/GMT-4 4 - +04
Z Etc/GMT-3 3 - +03
Z Etc/GMT-2 2 - +02

Z Etc/GMT-1 1 - +01
Z Etc/GMT+1 -1 - -01
Z Etc/GMT+2 -2 - -02
Z Etc/GMT+3 -3 - -03
Z Etc/GMT+4 -4 - -04
Z Etc/GMT+5 -5 - -05
Z Etc/GMT+6 -6 - -06
Z Etc/GMT+7 -7 - -07
Z Etc/GMT+8 -8 - -08
Z Etc/GMT+9 -9 - -09
Z Etc/GMT+10 -10 - -10
Z Etc/GMT+11 -11 - -11
Z Etc/GMT+12 -12 - -12
Z Factory 0 - -00
L Africa/Nairobi Africa/Asmera
L Africa/Abidjan Africa/Timbuktu
L America/Argentina/Catamarca America/Argentina/ComodRivadavia
L America/Adak America/Atka
L America/Argentina/Buenos_Aires America/Buenos_Aires
L America/Argentina/Catamarca America/Catamarca
L America/Atikokan America/Coral_Harbour
L America/Argentina/Cordoba America/Cordoba
L America/Tijuana America/Ensenada
L America/Indiana/Indianapolis America/Fort_Wayne
L America/Indiana/Indianapolis America/Indianapolis
L America/Argentina/Jujuy America/Jujuy
L America/Indiana/Knox America/Knox_IN
L America/Kentucky/Louisville America/Louisville
L America/Argentina/Mendoza America/Mendoza
L America/Toronto America/Montreal
L America/Rio_Branco America/Porto_Acre
L America/Argentina/Cordoba America/Rosario
L America/Tijuana America/Santa_Isabel
L America/Denver America/Shiprock
L America/Port_of_Spain America/Virgin
L Pacific/Auckland Antarctica/South_Pole
L Asia/Ashgabat Asia/Ashkhabad
L Asia/Kolkata Asia/Calcutta
L Asia/Shanghai Asia/Chongqing
L Asia/Shanghai Asia/Chungking
L Asia/Dhaka Asia/Dacca
L Asia/Shanghai Asia/Harbin
L Asia/Urumqi Asia/Kashgar
L Asia/Kathmandu Asia/Katmandu
L Asia/Macau Asia/Macao
L Asia/Yangon Asia/Rangoon
L Asia/Ho_Chi_Minh Asia/Saigon
L Asia/Jerusalem Asia/Tel_Aviv

L Asia/Thimphu Asia/Thimbu
L Asia/Makassar Asia/Ujung_Pandang
L Asia/Ulaanbaatar Asia/Ulan_Bator
L Atlantic/Faroe Atlantic/Faeroe
L Europe/Oslo Atlantic/Jan_Mayen
L Australia/Sydney Australia/ACT
L Australia/Sydney Australia/Canberra
L Australia/Lord_Howe Australia/LHI
L Australia/Sydney Australia/NSW
L Australia/Darwin Australia/North
L Australia/Brisbane Australia/Queensland
L Australia/Adelaide Australia/South
L Australia/Hobart Australia/Tasmania
L Australia/Melbourne Australia/Victoria
L Australia/Perth Australia/West
L Australia/Broken_Hill Australia/Yancowinna
L America/Rio_Branco Brazil/Acre
L America/Noronha Brazil/DeNoronha
L America/Sao_Paulo Brazil/East
L America/Manaus Brazil/West
L America/Halifax Canada/Atlantic
L America/Winnipeg Canada/Central
L America/Toronto Canada/Eastern
L America/Edmonton Canada/Mountain
L America/St_Johns Canada/Newfoundland
L America/Vancouver Canada/Pacific
L America/Regina Canada/Saskatchewan
L America/Whitehorse Canada/Yukon
L America/Santiago Chile/Continental
L Pacific/Easter Chile/EasterIsland
L America/Havana Cuba
L Africa/Cairo Egypt
L Europe/Dublin Eire
L Etc/UTC Etc/UCT
L Europe/London Europe/Belfast
L Europe/Chisinau Europe/Tiraspol
L Europe/London GB
L Europe/London GB-Eire
L Etc/GMT GMT+0
L Etc/GMT GMT-0
L Etc/GMT GMT0
L Etc/GMT Greenwich
L Asia/Hong_Kong Hongkong
L Atlantic/Reykjavik Iceland
L Asia/Tehran Iran
L Asia/Jerusalem Israel
L America/Jamaica Jamaica
L Asia/Tokyo Japan

L Pacific/Kwajalein Kwajalein
L Africa/Tripoli Libya
L America/Tijuana Mexico/BajaNorte
L America/Mazatlan Mexico/BajaSur
L America/Mexico_City Mexico/General
L Pacific/Auckland NZ
L Pacific/Chatham NZ-CHAT
L America/Denver Navajo
L Asia/Shanghai PRC
L Pacific/Honolulu Pacific/Johnston
L Pacific/Pohnpei Pacific/Ponape
L Pacific/Pago_Pago Pacific/Samoa
L Pacific/Chuuk Pacific/Truk
L Pacific/Chuuk Pacific/Yap
L Europe/Warsaw Poland
L Europe/Lisbon Portugal
L Asia/Taipei ROC
L Asia/Seoul ROK
L Asia/Singapore Singapore
L Europe/Istanbul Turkey
L Etc/UTC UCT
L America/Anchorage US/Alaska
L America/Adak US/Aleutian
L America/Phoenix US/Arizona
L America/Chicago US/Central
L America/Indiana/Indianapolis US/East-Indiana
L America/New_York US/Eastern
L Pacific/Honolulu US/Hawaii
L America/Indiana/Knox US/Indiana-Starke
L America/Detroit US/Michigan
L America/Denver US/Mountain
L America/Los_Angeles US/Pacific
L Pacific/Pago_Pago US/Samoa
L Etc/UTC UTC
L Etc/UTC Universal
L Europe/Moscow W-SU
L Etc/UTC Zulu

Found in path(s):

* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/zoneinfo/tzdata.zi

No license file was found, but licenses were detected in source scan.

Allowance for leap seconds added to each time zone file.

This file is in the public domain.

This file is generated automatically from the data in the public-domain


```
# leap-seconds.list file, which can be copied from
# <ftp://ftp.nist.gov/pub/time/leap-seconds.list>
# or <ftp://ftp.boulder.nist.gov/pub/time/leap-seconds.list>
# or <ftp://tycho.usno.navy.mil/pub/ntp/leap-seconds.list>.
# For more about leap-seconds.list, please see
# The NTP Timescale and Leap Seconds
# <https://www.eecis.udel.edu/~mills/leap.html>.

# The International Earth Rotation and Reference Systems Service
# periodically uses leap seconds to keep UTC to within 0.9 s of UT1
# (which measures the true angular orientation of the earth in space)
# and publishes leap second data in a copyrighted file
# <https://hpiers.obspm.fr/iers/bul/bulc/Leap_Second.dat>.
# See: Levine J. Coordinated Universal Time and the leap second.
# URSI Radio Sci Bull. 2016;89(4):30-6. doi:10.23919/URSIRSB.2016.7909995
# <https://ieeexplore.ieee.org/document/7909995>.

# There were no leap seconds before 1972, because the official mechanism
# accounting for the discrepancy between atomic time and the earth's rotation
# did not exist. The first ("1 Jan 1972") data line in leap-seconds.list
# does not denote a leap second; it denotes the start of the current definition
# of UTC.

# The correction (+ or -) is made at the given time, so lines
# will typically look like:
# Leap YEAR MON DAY 23:59:60 + R/S
# or
# Leap YEAR MON DAY 23:59:59 - R/S

# If the leap second is Rolling (R) the given time is local time (unused here).
Leap 1972 Jun 30 23:59:60 + S
Leap 1972 Dec 31 23:59:60 + S
Leap 1973 Dec 31 23:59:60 + S
Leap 1974 Dec 31 23:59:60 + S
Leap 1975 Dec 31 23:59:60 + S
Leap 1976 Dec 31 23:59:60 + S
Leap 1977 Dec 31 23:59:60 + S
Leap 1978 Dec 31 23:59:60 + S
Leap 1979 Dec 31 23:59:60 + S
Leap 1981 Jun 30 23:59:60 + S
Leap 1982 Jun 30 23:59:60 + S
Leap 1983 Jun 30 23:59:60 + S
Leap 1985 Jun 30 23:59:60 + S
Leap 1987 Dec 31 23:59:60 + S
Leap 1989 Dec 31 23:59:60 + S
Leap 1990 Dec 31 23:59:60 + S
Leap 1992 Jun 30 23:59:60 + S
Leap 1993 Jun 30 23:59:60 + S
```

Leap 1994 Jun 30 23:59:60 + S
Leap 1995 Dec 31 23:59:60 + S
Leap 1997 Jun 30 23:59:60 + S
Leap 1998 Dec 31 23:59:60 + S
Leap 2005 Dec 31 23:59:60 + S
Leap 2008 Dec 31 23:59:60 + S
Leap 2012 Jun 30 23:59:60 + S
Leap 2015 Jun 30 23:59:60 + S
Leap 2016 Dec 31 23:59:60 + S

POSIX timestamps for the data in this file:

#updated 1467936000
#expires 1577491200

Updated through IERS Bulletin C57

File expires on: 28 December 2019

Found in path(s):

* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/zoneinfo/leapseconds

No license file was found, but licenses were detected in source scan.

tzdb timezone descriptions

#

This file is in the public domain.

#

From Paul Eggert (2018-06-27):

This file contains a table where each row stands for a timezone where

civil timestamps have agreed since 1970. Columns are separated by

a single tab. Lines beginning with '#' are comments. All text uses

UTF-8 encoding. The columns of the table are as follows:

#

1. The countries that overlap the timezone, as a comma-separated list

of ISO 3166 2-character country codes. See the file 'iso3166.tab'.

2. Latitude and longitude of the timezone's principal location

in ISO 6709 sign-degrees-minutes-seconds format,

either $\pm DDMM\pm DDDMM$ or $\pm DDMMSS\pm DDDMMSS$,

first latitude (+ is north), then longitude (+ is east).

3. Timezone name used in value of TZ environment variable.

Please see the theory.html file for how these names are chosen.

If multiple timezones overlap a country, each has a row in the

table, with each column 1 containing the country code.

4. Comments; present if and only if a country has multiple timezones.

#

If a timezone covers multiple countries, the most-populous city is used,

and that country is listed first in column 1; any other countries

are listed alphabetically by country code. The table is sorted

first by country code, then (if possible) by an order within the

```

# country that (1) makes some geographical sense, and (2) puts the
# most populous timezones first, where that does not contradict (1).
#
# This table is intended as an aid for users, to help them select timezones
# appropriate for their practical needs. It is not intended to take or
# endorse any position on legal or territorial claims.
#
#country-
#codes coordinates TZ comments
AD +4230+00131 Europe/Andorra
AE,OM +2518+05518 Asia/Dubai
AF +3431+06912 Asia/Kabul
AL +4120+01950 Europe/Tirane
AM +4011+04430 Asia/Yerevan
AQ -6617+11031 Antarctica/Casey Casey
AQ -6835+07758 Antarctica/Davis Davis
AQ -6640+14001 Antarctica/DumontDUrville Dumont-d'Urville
AQ -6736+06253 Antarctica/Mawson Mawson
AQ -6448-06406 Antarctica/Palmer Palmer
AQ -6734-06808 Antarctica/Rothera Rothera
AQ -690022+0393524 Antarctica/Syowa Syowa
AQ -720041+0023206 Antarctica/Troll Troll
AQ -7824+10654 Antarctica/Vostok Vostok
AR -3436-05827 America/Argentina/Buenos_Aires Buenos Aires (BA, CF)
AR -3124-06411 America/Argentina/Cordoba Argentina (most areas: CB, CC, CN, ER, FM, MN, SE, SF)
AR -2447-06525 America/Argentina/Salta Salta (SA, LP, NQ, RN)
AR -2411-06518 America/Argentina/Jujuy Jujuy (JY)
AR -2649-06513 America/Argentina/Tucuman Tucumán (TM)
AR -2828-06547 America/Argentina/Catamarca Catamarca (CT); Chubut (CH)
AR -2926-06651 America/Argentina/La_Rioja La Rioja (LR)
AR -3132-06831 America/Argentina/San_Juan San Juan (SJ)
AR -3253-06849 America/Argentina/Mendoza Mendoza (MZ)
AR -3319-06621 America/Argentina/San_Luis San Luis (SL)
AR -5138-06913 America/Argentina/Rio_Gallegos Santa Cruz (SC)
AR -5448-06818 America/Argentina/Ushuaia Tierra del Fuego (TF)
AS,UM -1416-17042 Pacific/Pago_Pago Samoa, Midway
AT +4813+01620 Europe/Vienna
AU -3133+15905 Australia/Lord_Howe Lord Howe Island
AU -5430+15857 Antarctica/Macquarie Macquarie Island
AU -4253+14719 Australia/Hobart Tasmania (most areas)
AU -3956+14352 Australia/Currie Tasmania (King Island)
AU -3749+14458 Australia/Melbourne Victoria
AU -3352+15113 Australia/Sydney New South Wales (most areas)
AU -3157+14127 Australia/Broken_Hill New South Wales (Yancowinna)
AU -2728+15302 Australia/Brisbane Queensland (most areas)
AU -2016+14900 Australia/Lindeman Queensland (Whitsunday Islands)
AU -3455+13835 Australia/Adelaide South Australia
AU -1228+13050 Australia/Darwin Northern Territory

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AU -3157+11551 Australia/Perth Western Australia (most areas)
AU -3143+12852 Australia/Eucla Western Australia (Eucla)
AZ +4023+04951 Asia/Baku
BB +1306-05937 America/Barbados
BD +2343+09025 Asia/Dhaka
BE +5050+00420 Europe/Brussels
BG +4241+02319 Europe/Sofia
BM +3217-06446 Atlantic/Bermuda
BN +0456+11455 Asia/Brunei
BO -1630-06809 America/La_Paz
BR -0351-03225 America/Noronha Atlantic islands
BR -0127-04829 America/Belem Pará (east); Amapá
BR -0343-03830 America/Fortaleza Brazil (northeast: MA, PI, CE, RN, PB)
BR -0803-03454 America/Recife Pernambuco
BR -0712-04812 America/Araguaina Tocantins
BR -0940-03543 America/Maceio Alagoas, Sergipe
BR -1259-03831 America/Bahia Bahia
BR -2332-04637 America/Sao_Paulo Brazil (southeast: GO, DF, MG, ES, RJ, SP, PR, SC, RS)
BR -2027-05437 America/Campo_Grande Mato Grosso do Sul
BR -1535-05605 America/Cuiaba Mato Grosso
BR -0226-05452 America/Santarem Pará (west)
BR -0846-06354 America/Porto_Velho Rondônia
BR +0249-06040 America/Boa_Vista Roraima
BR -0308-06001 America/Manaus Amazonas (east)
BR -0640-06952 America/Eirunepé Amazonas (west)
BR -0958-06748 America/Rio_Branco Acre
BS +2505-07721 America/Nassau
BT +2728+08939 Asia/Thimphu
BY +5354+02734 Europe/Minsk
BZ +1730-08812 America/Belize
CA +4734-05243 America/St_Johns Newfoundland; Labrador (southeast)
CA +4439-06336 America/Halifax Atlantic - NS (most areas); PE
CA +4612-05957 America/Glace_Bay Atlantic - NS (Cape Breton)
CA +4606-06447 America/Moncton Atlantic - New Brunswick
CA +5320-06025 America/Goose_Bay Atlantic - Labrador (most areas)
CA +5125-05707 America/Blanc-Sablon AST - QC (Lower North Shore)
CA +4339-07923 America/Toronto Eastern - ON, QC (most areas)
CA +4901-08816 America/Nipigon Eastern - ON, QC (no DST 1967-73)
CA +4823-08915 America/Thunder_Bay Eastern - ON (Thunder Bay)
CA +6344-06828 America/Iqaluit Eastern - NU (most east areas)
CA +6608-06544 America/Pangnirtung Eastern - NU (Pangnirtung)
CA +484531-0913718 America/Atikokan EST - ON (Atikokan); NU (Coral H)
CA +4953-09709 America/Winnipeg Central - ON (west); Manitoba
CA +4843-09434 America/Rainy_River Central - ON (Rainy R, Ft Frances)
CA +744144-0944945 America/Resolute Central - NU (Resolute)
CA +624900-0920459 America/Rankin_Inlet Central - NU (central)
CA +5024-10439 America/Regina CST - SK (most areas)
CA +5017-10750 America/Swift_Current CST - SK (midwest)

CA +5333-11328 America/Edmonton Mountain - AB; BC (E); SK (W)
CA +690650-1050310 America/Cambridge_Bay Mountain - NU (west)
CA +6227-11421 America/Yellowknife Mountain - NT (central)
CA +682059-1334300 America/Inuvik Mountain - NT (west)
CA +4906-11631 America/Creston MST - BC (Creston)
CA +5946-12014 America/Dawson_Creek MST - BC (Dawson Cr, Ft St John)
CA +5848-12242 America/Fort_Nelson MST - BC (Ft Nelson)
CA +4916-12307 America/Vancouver Pacific - BC (most areas)
CA +6043-13503 America/Whitehorse Pacific - Yukon (south)
CA +6404-13925 America/Dawson Pacific - Yukon (north)
CC -1210+09655 Indian/Cocos
CH,DE,LI +4723+00832 Europe/Zurich Swiss time
CI,BF,GM,GN,ML,MR,SH,SL,SN,TG +0519-00402 Africa/Abidjan
CK -2114-15946 Pacific/Rarotonga
CL -3327-07040 America/Santiago Chile (most areas)
CL -5309-07055 America/Punta_Arenas Region of Magallanes
CL -2709-10926 Pacific/Easter Easter Island
CN +3114+12128 Asia/Shanghai Beijing Time
CN +4348+08735 Asia/Urumqi Xinjiang Time
CO +0436-07405 America/Bogota
CR +0956-08405 America/Costa_Rica
CU +2308-08222 America/Havana
CV +1455-02331 Atlantic/Cape_Verde
CW,AW,BQ,SX +1211-06900 America/Curacao
CX -1025+10543 Indian/Christmas
CY +3510+03322 Asia/Nicosia Cyprus (most areas)
CY +3507+03357 Asia/Famagusta Northern Cyprus
CZ,SK +5005+01426 Europe/Prague
DE +5230+01322 Europe/Berlin Germany (most areas)
DK +5540+01235 Europe/Copenhagen
DO +1828-06954 America/Santo_Domingo
DZ +3647+00303 Africa/Algiers
EC -0210-07950 America/Guayaquil Ecuador (mainland)
EC -0054-08936 Pacific/Galapagos Galápagos Islands
EE +5925+02445 Europe/Tallinn
EG +3003+03115 Africa/Cairo
EH +2709-01312 Africa/El_Aaiun
ES +4024-00341 Europe/Madrid Spain (mainland)
ES +3553-00519 Africa/Ceuta Ceuta, Melilla
ES +2806-01524 Atlantic/Canary Canary Islands
FI,AX +6010+02458 Europe/Helsinki
FJ -1808+17825 Pacific/Fiji
FK -5142-05751 Atlantic/Stanley
FM +0725+15147 Pacific/Chuuk Chuuk/Truk, Yap
FM +0658+15813 Pacific/Pohnpei Pohnpei/Ponape
FM +0519+16259 Pacific/Kosrae Kosrae
FO +6201-00646 Atlantic/Faroe
FR +4852+00220 Europe/Paris

GB,GG,IM,JE +513030-0000731 Europe/London
GE +4143+04449 Asia/Tbilisi
GF +0456-05220 America/Cayenne
GH +0533-00013 Africa/Accra
GI +3608-00521 Europe/Gibraltar
GL +6411-05144 America/Godthab Greenland (most areas)
GL +7646-01840 America/Danmarkshavn National Park (east coast)
GL +7029-02158 America/Scoresbysund Scoresbysund/Ittoqqortoormiit
GL +7634-06847 America/Thule Thule/Pituffik
GR +3758+02343 Europe/Athens
GS -5416-03632 Atlantic/South_Georgia
GT +1438-09031 America/Guatemala
GU,MP +1328+14445 Pacific/Guam
GW +1151-01535 Africa/Bissau
GY +0648-05810 America/Guyana
HK +2217+11409 Asia/Hong_Kong
HN +1406-08713 America/Tegucigalpa
HT +1832-07220 America/Port-au-Prince
HU +4730+01905 Europe/Budapest
ID -0610+10648 Asia/Jakarta Java, Sumatra
ID -0002+10920 Asia/Pontianak Borneo (west, central)
ID -0507+11924 Asia/Makassar Borneo (east, south); Sulawesi/Celebes, Bali, Nusa Tenggara; Timor (west)
ID -0232+14042 Asia/Jayapura New Guinea (West Papua / Irian Jaya); Maluku/Moluccas
IE +5320-00615 Europe/Dublin
IL +314650+0351326 Asia/Jerusalem
IN +2232+08822 Asia/Kolkata
IO -0720+07225 Indian/Chagos
IQ +3321+04425 Asia/Baghdad
IR +3540+05126 Asia/Tehran
IS +6409-02151 Atlantic/Reykjavik
IT,SM,VA +4154+01229 Europe/Rome
JM +175805-0764736 America/Jamaica
JO +3157+03556 Asia/Amman
JP +353916+1394441 Asia/Tokyo
KE,DJ,ER,ET,KM,MG,SO,TZ,UG,YT -0117+03649 Africa/Nairobi
KG +4254+07436 Asia/Bishkek
KI +0125+17300 Pacific/Tarawa Gilbert Islands
KI -0308-17105 Pacific/Enderbury Phoenix Islands
KI +0152-15720 Pacific/Kiritimati Line Islands
KP +3901+12545 Asia/Pyongyang
KR +3733+12658 Asia/Seoul
KZ +4315+07657 Asia/Almaty Kazakhstan (most areas)
KZ +4448+06528 Asia/Qyzylorda Qyzylorda/Kyzylorda/Kzyl-Orda
KZ +5312+06337 Asia/Qostanay Qostanay/Kostanay/Kustanay
KZ +5017+05710 Asia/Aqtobe Aqtöbe/Aktobe
KZ +4431+05016 Asia/Aqtau Mangghysta/Mankistau
KZ +4707+05156 Asia/Atyrau Atyra/Atirau/Gur'yev
KZ +5113+05121 Asia/Oral West Kazakhstan

LB +3353+03530 Asia/Beirut
LK +0656+07951 Asia/Colombo
LR +0618-01047 Africa/Monrovia
LT +5441+02519 Europe/Vilnius
LU +4936+00609 Europe/Luxembourg
LV +5657+02406 Europe/Riga
LY +3254+01311 Africa/Tripoli
MA +3339-00735 Africa/Casablanca
MC +4342+00723 Europe/Monaco
MD +4700+02850 Europe/Chisinau
MH +0709+17112 Pacific/Majuro Marshall Islands (most areas)
MH +0905+16720 Pacific/Kwajalein Kwajalein
MM +1647+09610 Asia/Yangon
MN +4755+10653 Asia/Ulaanbaatar Mongolia (most areas)
MN +4801+09139 Asia/Hovd Bayan-Ölgii, Govi-Altai, Hovd, Uvs, Zavkhan
MN +4804+11430 Asia/Choibalsan Dornod, Sükhbaatar
MO +221150+1133230 Asia/Macau
MQ +1436-06105 America/Martinique
MT +3554+01431 Europe/Malta
MU -2010+05730 Indian/Mauritius
MV +0410+07330 Indian/Maldives
MX +1924-09909 America/Mexico_City Central Time
MX +2105-08646 America/Cancun Eastern Standard Time - Quintana Roo
MX +2058-08937 America/Merida Central Time - Campeche, Yucatán
MX +2540-10019 America/Monterrey Central Time - Durango; Coahuila, Nuevo León, Tamaulipas (most areas)
MX +2550-09730 America/Matamoros Central Time US - Coahuila, Nuevo León, Tamaulipas (US border)
MX +2313-10625 America/Mazatlan Mountain Time - Baja California Sur, Nayarit, Sinaloa
MX +2838-10605 America/Chihuahua Mountain Time - Chihuahua (most areas)
MX +2934-10425 America/Ojinaga Mountain Time US - Chihuahua (US border)
MX +2904-11058 America/Hermosillo Mountain Standard Time - Sonora
MX +3232-11701 America/Tijuana Pacific Time US - Baja California
MX +2048-10515 America/Bahia_Banderas Central Time - Bahía de Banderas
MY +0310+10142 Asia/Kuala_Lumpur Malaysia (peninsula)
MY +0133+11020 Asia/Kuching Sabah, Sarawak
MZ,BI,BW,CD,MW,RW,ZM,ZW -2558+03235 Africa/Maputo Central Africa Time
NA -2234+01706 Africa/Windhoek
NC -2216+16627 Pacific/Noumea
NF -2903+16758 Pacific/Norfolk
NG,AO,BJ,CD,CF,CG,CM,GA,GQ,NE +0627+00324 Africa/Lagos West Africa Time
NI +1209-08617 America/Managua
NL +5222+00454 Europe/Amsterdam
NO,SJ +5955+01045 Europe/Oslo
NP +2743+08519 Asia/Kathmandu
NR -0031+16655 Pacific/Nauru
NU -1901-16955 Pacific/Niue
NZ,AQ -3652+17446 Pacific/Auckland New Zealand time
NZ -4357-17633 Pacific/Chatham Chatham Islands
PA,KY +0858-07932 America/Panama

PE -1203-07703 America/Lima
PF -1732-14934 Pacific/Tahiti Society Islands
PF -0900-13930 Pacific/Marquesas Marquesas Islands
PF -2308-13457 Pacific/Gambier Gambier Islands
PG -0930+14710 Pacific/Port_Moresby Papua New Guinea (most areas)
PG -0613+15534 Pacific/Bougainville Bougainville
PH +1435+12100 Asia/Manila
PK +2452+06703 Asia/Karachi
PL +5215+02100 Europe/Warsaw
PM +4703-05620 America/Miquelon
PN -2504-13005 Pacific/Pitcairn
PR +182806-0660622 America/Puerto_Rico
PS +3130+03428 Asia/Gaza Gaza Strip
PS +313200+0350542 Asia/Hebron West Bank
PT +3843-00908 Europe/Lisbon Portugal (mainland)
PT +3238-01654 Atlantic/Madeira Madeira Islands
PT +3744-02540 Atlantic/Azores Azores
PW +0720+13429 Pacific/Palau
PY -2516-05740 America/Asuncion
QA,BH +2517+05132 Asia/Qatar
RE,TF -2052+05528 Indian/Reunion Réunion, Crozet, Scattered Islands
RO +4426+02606 Europe/Bucharest
RS,BA,HR,ME,MK,SI +4450+02030 Europe/Belgrade
RU +5443+02030 Europe/Kaliningrad MSK-01 - Kaliningrad
RU +554521+0373704 Europe/Moscow MSK+00 - Moscow area
Mention RU and UA alphabetically. See "territorial claims" above.
RU,UA +4457+03406 Europe/Simferopol MSK+00 - Crimea
RU +5836+04939 Europe/Kirov MSK+00 - Kirov
RU +4621+04803 Europe/Astrakhan MSK+01 - Astrakhan
RU +4844+04425 Europe/Volgograd MSK+01 - Volgograd
RU +5134+04602 Europe/Saratov MSK+01 - Saratov
RU +5420+04824 Europe/Ulyanovsk MSK+01 - Ulyanovsk
RU +5312+05009 Europe/Samara MSK+01 - Samara, Udmurtia
RU +5651+06036 Asia/Yekaterinburg MSK+02 - Urals
RU +5500+07324 Asia/Omsk MSK+03 - Omsk
RU +5502+08255 Asia/Novosibirsk MSK+04 - Novosibirsk
RU +5322+08345 Asia/Barnaul MSK+04 - Altai
RU +5630+08458 Asia/Tomsk MSK+04 - Tomsk
RU +5345+08707 Asia/Novokuznetsk MSK+04 - Kemerovo
RU +5601+09250 Asia/Krasnoyarsk MSK+04 - Krasnoyarsk area
RU +5216+10420 Asia/Irkutsk MSK+05 - Irkutsk, Buryatia
RU +5203+11328 Asia/Chita MSK+06 - Zabaykalsky
RU +6200+12940 Asia/Yakutsk MSK+06 - Lena River
RU +623923+1353314 Asia/Khandyga MSK+06 - Tomponsky, Ust-Maysky
RU +4310+13156 Asia/Vladivostok MSK+07 - Amur River
RU +643337+1431336 Asia/Ust-Nera MSK+07 - Oymyakonsky
RU +5934+15048 Asia/Magadan MSK+08 - Magadan
RU +4658+14242 Asia/Sakhalin MSK+08 - Sakhalin Island

RU +6728+15343 Asia/Srednekolymsk MSK+08 - Sakha (E); North Kuril Is
RU +5301+15839 Asia/Kamchatka MSK+09 - Kamchatka
RU +6445+17729 Asia/Anadyr MSK+09 - Bering Sea
SA,KW,YE +2438+04643 Asia/Riyadh
SB -0932+16012 Pacific/Guadalcanal
SC -0440+05528 Indian/Mahe
SD +1536+03232 Africa/Khartoum
SE +5920+01803 Europe/Stockholm
SG +0117+10351 Asia/Singapore
SR +0550-05510 America/Paramaribo
SS +0451+03137 Africa/Juba
ST +0020+00644 Africa/Sao_Tome
SV +1342-08912 America/El_Salvador
SY +3330+03618 Asia/Damascus
TC +2128-07108 America/Grand_Turk
TD +1207+01503 Africa/Ndjamena
TF -492110+0701303 Indian/Kerguelen Kerguelen, St Paul Island, Amsterdam Island
TH,KH,LA,VN +1345+10031 Asia/Bangkok Indochina (most areas)
TJ +3835+06848 Asia/Dushanbe
TK -0922-17114 Pacific/Fakaofu
TL -0833+12535 Asia/Dili
TM +3757+05823 Asia/Ashgabat
TN +3648+01011 Africa/Tunis
TO -2110-17510 Pacific/Tongatapu
TR +4101+02858 Europe/Istanbul
TT,AG,AI,BL,DM,GD,GP,KN,LC,MF,MS,VC,VG,VI +1039-06131 America/Port_of_Spain
TV -0831+17913 Pacific/Funafuti
TW +2503+12130 Asia/Taipei
UA +5026+03031 Europe/Kiev Ukraine (most areas)
UA +4837+02218 Europe/Uzhgorod Ruthenia
UA +4750+03510 Europe/Zaporozhye Zaporozh'ye/Zaporizhia; Lugansk/Luhansk (east)
UM +1917+16637 Pacific/Wake Wake Island
US +404251-0740023 America/New_York Eastern (most areas)
US +421953-0830245 America/Detroit Eastern - MI (most areas)
US +381515-0854534 America/Kentucky/Louisville Eastern - KY (Louisville area)
US +364947-0845057 America/Kentucky/Monticello Eastern - KY (Wayne)
US +394606-0860929 America/Indiana/Indianapolis Eastern - IN (most areas)
US +384038-0873143 America/Indiana/Vincennes Eastern - IN (Da, Du, K, Mn)
US +410305-0863611 America/Indiana/Winamac Eastern - IN (Pulaski)
US +382232-0862041 America/Indiana/Marengo Eastern - IN (Crawford)
US +382931-0871643 America/Indiana/Petersburg Eastern - IN (Pike)
US +384452-0850402 America/Indiana/Vevay Eastern - IN (Switzerland)
US +415100-0873900 America/Chicago Central (most areas)
US +375711-0864541 America/Indiana/Tell_City Central - IN (Perry)
US +411745-0863730 America/Indiana/Knox Central - IN (Starke)
US +450628-0873651 America/Menominee Central - MI (Wisconsin border)
US +470659-1011757 America/North_Dakota/Center Central - ND (Oliver)
US +465042-1012439 America/North_Dakota/New_Salem Central - ND (Morton rural)

US +471551-1014640 America/North_Dakota/Beulah Central - ND (Mercer)
US +394421-1045903 America/Denver Mountain (most areas)
US +433649-1161209 America/Boise Mountain - ID (south); OR (east)
US +332654-1120424 America/Phoenix MST - Arizona (except Navajo)
US +340308-1181434 America/Los_Angeles Pacific
US +611305-1495401 America/Anchorage Alaska (most areas)
US +581807-1342511 America/Juneau Alaska - Juneau area
US +571035-1351807 America/Sitka Alaska - Sitka area
US +550737-1313435 America/Metlakatla Alaska - Annette Island
US +593249-1394338 America/Yakutat Alaska - Yakutat
US +643004-1652423 America/Nome Alaska (west)
US +515248-1763929 America/Adak Aleutian Islands
US,UM +211825-1575130 Pacific/Honolulu Hawaii
UY -345433-0561245 America/Montevideo
UZ +3940+06648 Asia/Samarkand Uzbekistan (west)
UZ +4120+06918 Asia/Tashkent Uzbekistan (east)
VE +1030-06656 America/Caracas
VN +1045+10640 Asia/Ho_Chi_Minh Vietnam (south)
VU -1740+16825 Pacific/Efate
WF -1318-17610 Pacific/Wallis
WS -1350-17144 Pacific/Apia
ZA,LS,SZ -2615+02800 Africa/Johannesburg

Found in path(s):

```
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/zoneinfo/zone1970.tab
```

No license file was found, but licenses were detected in source scan.

```
# tzdb timezone descriptions (deprecated version)
#
# This file is in the public domain, so clarified as of
# 2009-05-17 by Arthur David Olson.
#
# From Paul Eggert (2018-06-27):
# This file is intended as a backward-compatibility aid for older programs.
# New programs should use zone1970.tab. This file is like zone1970.tab (see
# zone1970.tab's comments), but with the following additional restrictions:
#
# 1. This file contains only ASCII characters.
# 2. The first data column contains exactly one country code.
#
# Because of (2), each row stands for an area that is the intersection
# of a region identified by a country code and of a timezone where civil
# clocks have agreed since 1970; this is a narrower definition than
# that of zone1970.tab.
#
# This table is intended as an aid for users, to help them select timezones
# appropriate for their practical needs. It is not intended to take or
```

endorse any position on legal or territorial claims.

#country-
#code coordinates TZ comments
AD +4230+00131 Europe/Andorra
AE +2518+05518 Asia/Dubai
AF +3431+06912 Asia/Kabul
AG +1703-06148 America/Antigua
AI +1812-06304 America/Anguilla
AL +4120+01950 Europe/Tirane
AM +4011+04430 Asia/Yerevan
AO -0848+01314 Africa/Luanda
AQ -7750+16636 Antarctica/McMurdo New Zealand time - McMurdo, South Pole
AQ -6617+11031 Antarctica/Casey Casey
AQ -6835+07758 Antarctica/Davis Davis
AQ -6640+14001 Antarctica/DumontD'Urville Dumont-d'Urville
AQ -6736+06253 Antarctica/Mawson Mawson
AQ -6448-06406 Antarctica/Palmer Palmer
AQ -6734-06808 Antarctica/Rothera Rothera
AQ -690022+0393524 Antarctica/Syowa Syowa
AQ -720041+0023206 Antarctica/Troll Troll
AQ -7824+10654 Antarctica/Vostok Vostok
AR -3436-05827 America/Argentina/Buenos_Aires Buenos Aires (BA, CF)
AR -3124-06411 America/Argentina/Cordoba Argentina (most areas: CB, CC, CN, ER, FM, MN, SE, SF)
AR -2447-06525 America/Argentina/Salta Salta (SA, LP, NQ, RN)
AR -2411-06518 America/Argentina/Jujuy Jujuy (JY)
AR -2649-06513 America/Argentina/Tucuman Tucuman (TM)
AR -2828-06547 America/Argentina/Catamarca Catamarca (CT); Chubut (CH)
AR -2926-06651 America/Argentina/La_Rioja La Rioja (LR)
AR -3132-06831 America/Argentina/San_Juan San Juan (SJ)
AR -3253-06849 America/Argentina/Mendoza Mendoza (MZ)
AR -3319-06621 America/Argentina/San_Luis San Luis (SL)
AR -5138-06913 America/Argentina/Rio_Gallegos Santa Cruz (SC)
AR -5448-06818 America/Argentina/Ushuaia Tierra del Fuego (TF)
AS -1416-17042 Pacific/Pago_Pago
AT +4813+01620 Europe/Vienna
AU -3133+15905 Australia/Lord_Howe Lord Howe Island
AU -5430+15857 Antarctica/Macquarie Macquarie Island
AU -4253+14719 Australia/Hobart Tasmania (most areas)
AU -3956+14352 Australia/Currie Tasmania (King Island)
AU -3749+14458 Australia/Melbourne Victoria
AU -3352+15113 Australia/Sydney New South Wales (most areas)
AU -3157+14127 Australia/Broken_Hill New South Wales (Yancowinna)
AU -2728+15302 Australia/Brisbane Queensland (most areas)
AU -2016+14900 Australia/Lindeman Queensland (Whitsunday Islands)
AU -3455+13835 Australia/Adelaide South Australia
AU -1228+13050 Australia/Darwin Northern Territory
AU -3157+11551 Australia/Perth Western Australia (most areas)

AU -3143+12852 Australia/Eucla Western Australia (Eucla)
AW +1230-06958 America/Aruba
AX +6006+01957 Europe/Mariehamn
AZ +4023+04951 Asia/Baku
BA +4352+01825 Europe/Sarajevo
BB +1306-05937 America/Barbados
BD +2343+09025 Asia/Dhaka
BE +5050+00420 Europe/Brussels
BF +1222-00131 Africa/Ouagadougou
BG +4241+02319 Europe/Sofia
BH +2623+05035 Asia/Bahrain
BI -0323+02922 Africa/Bujumbura
BJ +0629+00237 Africa/Porto-Novo
BL +1753-06251 America/St_Barthelemy
BM +3217-06446 Atlantic/Bermuda
BN +0456+11455 Asia/Brunei
BO -1630-06809 America/La_Paz
BQ +120903-0681636 America/Kralendijk
BR -0351-03225 America/Noronha Atlantic islands
BR -0127-04829 America/Belem Para (east); Amapa
BR -0343-03830 America/Fortaleza Brazil (northeast: MA, PI, CE, RN, PB)
BR -0803-03454 America/Recife Pernambuco
BR -0712-04812 America/Araguaina Tocantins
BR -0940-03543 America/Maceio Alagoas, Sergipe
BR -1259-03831 America/Bahia Bahia
BR -2332-04637 America/Sao_Paulo Brazil (southeast: GO, DF, MG, ES, RJ, SP, PR, SC, RS)
BR -2027-05437 America/Campo_Grande Mato Grosso do Sul
BR -1535-05605 America/Cuiaba Mato Grosso
BR -0226-05452 America/Santarem Para (west)
BR -0846-06354 America/Porto_Velho Rondonia
BR +0249-06040 America/Boa_Vista Roraima
BR -0308-06001 America/Manaus Amazonas (east)
BR -0640-06952 America/Eirunepe Amazonas (west)
BR -0958-06748 America/Rio_Branco Acre
BS +2505-07721 America/Nassau
BT +2728+08939 Asia/Thimphu
BW -2439+02555 Africa/Gaborone
BY +5354+02734 Europe/Minsk
BZ +1730-08812 America/Belize
CA +4734-05243 America/St_Johns Newfoundland; Labrador (southeast)
CA +4439-06336 America/Halifax Atlantic - NS (most areas); PE
CA +4612-05957 America/Glace_Bay Atlantic - NS (Cape Breton)
CA +4606-06447 America/Moncton Atlantic - New Brunswick
CA +5320-06025 America/Goose_Bay Atlantic - Labrador (most areas)
CA +5125-05707 America/Blanc-Sablon AST - QC (Lower North Shore)
CA +4339-07923 America/Toronto Eastern - ON, QC (most areas)
CA +4901-08816 America/Nipigon Eastern - ON, QC (no DST 1967-73)
CA +4823-08915 America/Thunder_Bay Eastern - ON (Thunder Bay)

CA +6344-06828 America/Iqaluit Eastern - NU (most east areas)
CA +6608-06544 America/Pangnirtung Eastern - NU (Pangnirtung)
CA +484531-0913718 America/Atikokan EST - ON (Atikokan); NU (Coral H)
CA +4953-09709 America/Winnipeg Central - ON (west); Manitoba
CA +4843-09434 America/Rainy_River Central - ON (Rainy R, Ft Frances)
CA +744144-0944945 America/Resolute Central - NU (Resolute)
CA +624900-0920459 America/Rankin_Inlet Central - NU (central)
CA +5024-10439 America/Regina CST - SK (most areas)
CA +5017-10750 America/Swift_Current CST - SK (midwest)
CA +5333-11328 America/Edmonton Mountain - AB; BC (E); SK (W)
CA +690650-1050310 America/Cambridge_Bay Mountain - NU (west)
CA +6227-11421 America/Yellowknife Mountain - NT (central)
CA +682059-1334300 America/Inuvik Mountain - NT (west)
CA +4906-11631 America/Creston MST - BC (Creston)
CA +5946-12014 America/Dawson_Creek MST - BC (Dawson Cr, Ft St John)
CA +5848-12242 America/Fort_Nelson MST - BC (Ft Nelson)
CA +4916-12307 America/Vancouver Pacific - BC (most areas)
CA +6043-13503 America/Whitehorse Pacific - Yukon (south)
CA +6404-13925 America/Dawson Pacific - Yukon (north)
CC -1210+09655 Indian/Cocos
CD -0418+01518 Africa/Kinshasa Dem. Rep. of Congo (west)
CD -1140+02728 Africa/Lubumbashi Dem. Rep. of Congo (east)
CF +0422+01835 Africa/Bangui
CG -0416+01517 Africa/Brazzaville
CH +4723+00832 Europe/Zurich
CI +0519-00402 Africa/Abidjan
CK -2114-15946 Pacific/Rarotonga
CL -3327-07040 America/Santiago Chile (most areas)
CL -5309-07055 America/Punta_Arenas Region of Magallanes
CL -2709-10926 Pacific/Easter Easter Island
CM +0403+00942 Africa/Douala
CN +3114+12128 Asia/Shanghai Beijing Time
CN +4348+08735 Asia/Urumqi Xinjiang Time
CO +0436-07405 America/Bogota
CR +0956-08405 America/Costa_Rica
CU +2308-08222 America/Havana
CV +1455-02331 Atlantic/Cape_Verde
CW +1211-06900 America/Curacao
CX -1025+10543 Indian/Christmas
CY +3510+03322 Asia/Nicosia Cyprus (most areas)
CY +3507+03357 Asia/Famagusta Northern Cyprus
CZ +5005+01426 Europe/Prague
DE +5230+01322 Europe/Berlin Germany (most areas)
DE +4742+00841 Europe/Busingen Busingen
DJ +1136+04309 Africa/Djibouti
DK +5540+01235 Europe/Copenhagen
DM +1518-06124 America/Dominica
DO +1828-06954 America/Santo_Domingo

DZ +3647+00303 Africa/Algiers
EC -0210-07950 America/Guayaquil Ecuador (mainland)
EC -0054-08936 Pacific/Galapagos Galapagos Islands
EE +5925+02445 Europe/Tallinn
EG +3003+03115 Africa/Cairo
EH +2709-01312 Africa/El_Aaiun
ER +1520+03853 Africa/Asmara
ES +4024-00341 Europe/Madrid Spain (mainland)
ES +3553-00519 Africa/Ceuta Ceuta, Melilla
ES +2806-01524 Atlantic/Canary Canary Islands
ET +0902+03842 Africa/Addis_Ababa
FI +6010+02458 Europe/Helsinki
FJ -1808+17825 Pacific/Fiji
FK -5142-05751 Atlantic/Stanley
FM +0725+15147 Pacific/Chuuk Chuuk/Truk, Yap
FM +0658+15813 Pacific/Pohnpei Pohnpei/Ponape
FM +0519+16259 Pacific/Kosrae Kosrae
FO +6201-00646 Atlantic/Faroe
FR +4852+00220 Europe/Paris
GA +0023+00927 Africa/Libreville
GB +513030-0000731 Europe/London
GD +1203-06145 America/Grenada
GE +4143+04449 Asia/Tbilisi
GF +0456-05220 America/Cayenne
GG +492717-0023210 Europe/Guernsey
GH +0533-00013 Africa/Accra
GI +3608-00521 Europe/Gibraltar
GL +6411-05144 America/Godthab Greenland (most areas)
GL +7646-01840 America/Danmarkshavn National Park (east coast)
GL +7029-02158 America/Scoresbysund Scoresbysund/Ittoqqortoormiit
GL +7634-06847 America/Thule Thule/Pituffik
GM +1328-01639 Africa/Banjul
GN +0931-01343 Africa/Conakry
GP +1614-06132 America/Guadeloupe
GQ +0345+00847 Africa/Malabo
GR +3758+02343 Europe/Athens
GS -5416-03632 Atlantic/South_Georgia
GT +1438-09031 America/Guatemala
GU +1328+14445 Pacific/Guam
GW +1151-01535 Africa/Bissau
GY +0648-05810 America/Guyana
HK +2217+11409 Asia/Hong_Kong
HN +1406-08713 America/Tegucigalpa
HR +4548+01558 Europe/Zagreb
HT +1832-07220 America/Port-au-Prince
HU +4730+01905 Europe/Budapest
ID -0610+10648 Asia/Jakarta Java, Sumatra
ID -0002+10920 Asia/Pontianak Borneo (west, central)

ID -0507+11924 Asia/Makassar Borneo (east, south); Sulawesi/Celebes, Bali, Nusa Tenggara; Timor (west)
ID -0232+14042 Asia/Jayapura New Guinea (West Papua / Irian Jaya); Maluku/Moluccas
IE +5320-00615 Europe/Dublin
IL +314650+0351326 Asia/Jerusalem
IM +5409-00428 Europe/Isle_of_Man
IN +2232+08822 Asia/Kolkata
IO -0720+07225 Indian/Chagos
IQ +3321+04425 Asia/Baghdad
IR +3540+05126 Asia/Tehran
IS +6409-02151 Atlantic/Reykjavik
IT +4154+01229 Europe/Rome
JE +491101-0020624 Europe/Jersey
JM +175805-0764736 America/Jamaica
JO +3157+03556 Asia/Amman
JP +353916+1394441 Asia/Tokyo
KE -0117+03649 Africa/Nairobi
KG +4254+07436 Asia/Bishkek
KH +1133+10455 Asia/Phnom_Penh
KI +0125+17300 Pacific/Tarawa Gilbert Islands
KI -0308-17105 Pacific/Enderbury Phoenix Islands
KI +0152-15720 Pacific/Kiritimati Line Islands
KM -1141+04316 Indian/Comoro
KN +1718-06243 America/St_Kitts
KP +3901+12545 Asia/Pyongyang
KR +3733+12658 Asia/Seoul
KW +2920+04759 Asia/Kuwait
KY +1918-08123 America/Cayman
KZ +4315+07657 Asia/Almaty Kazakhstan (most areas)
KZ +4448+06528 Asia/Qyzylorda Qyzylorda/Kyzylorda/Kzyl-Orda
KZ +5312+06337 Asia/Qostanay Qostanay/Kostanay/Kustanay
KZ +5017+05710 Asia/Aqtobe Aqtobe/Aktobe
KZ +4431+05016 Asia/Aqtau Mangghystau/Mankistau
KZ +4707+05156 Asia/Atyrau Atyrau/Atirau/Gur'yev
KZ +5113+05121 Asia/Oral West Kazakhstan
LA +1758+10236 Asia/Vientiane
LB +3353+03530 Asia/Beirut
LC +1401-06100 America/St_Lucia
LI +4709+00931 Europe/Vaduz
LK +0656+07951 Asia/Colombo
LR +0618-01047 Africa/Monrovia
LS -2928+02730 Africa/Maseru
LT +5441+02519 Europe/Vilnius
LU +4936+00609 Europe/Luxembourg
LV +5657+02406 Europe/Riga
LY +3254+01311 Africa/Tripoli
MA +3339-00735 Africa/Casablanca
MC +4342+00723 Europe/Monaco
MD +4700+02850 Europe/Chisinau

ME +4226+01916 Europe/Podgorica
MF +1804-06305 America/Marigot
MG -1855+04731 Indian/Antananarivo
MH +0709+17112 Pacific/Majuro Marshall Islands (most areas)
MH +0905+16720 Pacific/Kwajalein Kwajalein
MK +4159+02126 Europe/Skopje
ML +1239-00800 Africa/Bamako
MM +1647+09610 Asia/Yangon
MN +4755+10653 Asia/Ulaanbaatar Mongolia (most areas)
MN +4801+09139 Asia/Hovd Bayan-Olgii, Govi-Altai, Hovd, Uvs, Zavkhan
MN +4804+11430 Asia/Choibalsan Dornod, Sukhbaatar
MO +221150+1133230 Asia/Macau
MP +1512+14545 Pacific/Saipan
MQ +1436-06105 America/Martinique
MR +1806-01557 Africa/Nouakchott
MS +1643-06213 America/Montserrat
MT +3554+01431 Europe/Malta
MU -2010+05730 Indian/Mauritius
MV +0410+07330 Indian/Maldives
MW -1547+03500 Africa/Blantyre
MX +1924-09909 America/Mexico_City Central Time
MX +2105-08646 America/Cancun Eastern Standard Time - Quintana Roo
MX +2058-08937 America/Merida Central Time - Campeche, Yucatan
MX +2540-10019 America/Monterrey Central Time - Durango; Coahuila, Nuevo Leon, Tamaulipas (most areas)
MX +2550-09730 America/Matamoros Central Time US - Coahuila, Nuevo Leon, Tamaulipas (US border)
MX +2313-10625 America/Mazatlan Mountain Time - Baja California Sur, Nayarit, Sinaloa
MX +2838-10605 America/Chihuahua Mountain Time - Chihuahua (most areas)
MX +2934-10425 America/Ojinaga Mountain Time US - Chihuahua (US border)
MX +2904-11058 America/Hermosillo Mountain Standard Time - Sonora
MX +3232-11701 America/Tijuana Pacific Time US - Baja California
MX +2048-10515 America/Bahia_Banderas Central Time - Bahia de Banderas
MY +0310+10142 Asia/Kuala_Lumpur Malaysia (peninsula)
MY +0133+11020 Asia/Kuching Sabah, Sarawak
MZ -2558+03235 Africa/Maputo
NA -2234+01706 Africa/Windhoek
NC -2216+16627 Pacific/Noumea
NE +1331+00207 Africa/Niamey
NF -2903+16758 Pacific/Norfolk
NG +0627+00324 Africa/Lagos
NI +1209-08617 America/Managua
NL +5222+00454 Europe/Amsterdam
NO +5955+01045 Europe/Oslo
NP +2743+08519 Asia/Kathmandu
NR -0031+16655 Pacific/Nauru
NU -1901-16955 Pacific/Niue
NZ -3652+17446 Pacific/Auckland New Zealand (most areas)
NZ -4357-17633 Pacific/Chatham Chatham Islands
OM +2336+05835 Asia/Muscat

PA +0858-07932 America/Panama
PE -1203-07703 America/Lima
PF -1732-14934 Pacific/Tahiti Society Islands
PF -0900-13930 Pacific/Marquesas Marquesas Islands
PF -2308-13457 Pacific/Gambier Gambier Islands
PG -0930+14710 Pacific/Port_Moresby Papua New Guinea (most areas)
PG -0613+15534 Pacific/Bougainville Bougainville
PH +1435+12100 Asia/Manila
PK +2452+06703 Asia/Karachi
PL +5215+02100 Europe/Warsaw
PM +4703-05620 America/Miquelon
PN -2504-13005 Pacific/Pitcairn
PR +182806-0660622 America/Puerto_Rico
PS +3130+03428 Asia/Gaza Gaza Strip
PS +313200+0350542 Asia/Hebron West Bank
PT +3843-00908 Europe/Lisbon Portugal (mainland)
PT +3238-01654 Atlantic/Madeira Madeira Islands
PT +3744-02540 Atlantic/Azores Azores
PW +0720+13429 Pacific/Palau
PY -2516-05740 America/Asuncion
QA +2517+05132 Asia/Qatar
RE -2052+05528 Indian/Reunion
RO +4426+02606 Europe/Bucharest
RS +4450+02030 Europe/Belgrade
RU +5443+02030 Europe/Kaliningrad MSK-01 - Kaliningrad
RU +554521+0373704 Europe/Moscow MSK+00 - Moscow area
The obsolescent zone.tab format cannot represent Europe/Simferopol well.
Put it in RU section and list as UA. See "territorial claims" above.
Programs should use zone1970.tab instead; see above.
UA +4457+03406 Europe/Simferopol MSK+00 - Crimea
RU +5836+04939 Europe/Kirov MSK+00 - Kirov
RU +4621+04803 Europe/Astrakhan MSK+01 - Astrakhan
RU +4844+04425 Europe/Volgograd MSK+01 - Volgograd
RU +5134+04602 Europe/Saratov MSK+01 - Saratov
RU +5420+04824 Europe/Ulyanovsk MSK+01 - Ulyanovsk
RU +5312+05009 Europe/Samara MSK+01 - Samara, Udmurtia
RU +5651+06036 Asia/Yekaterinburg MSK+02 - Urals
RU +5500+07324 Asia/Omsk MSK+03 - Omsk
RU +5502+08255 Asia/Novosibirsk MSK+04 - Novosibirsk
RU +5322+08345 Asia/Barnaul MSK+04 - Altai
RU +5630+08458 Asia/Tomsk MSK+04 - Tomsk
RU +5345+08707 Asia/Novokuznetsk MSK+04 - Kemerovo
RU +5601+09250 Asia/Krasnoyarsk MSK+04 - Krasnoyarsk area
RU +5216+10420 Asia/Irkutsk MSK+05 - Irkutsk, Buryatia
RU +5203+11328 Asia/Chita MSK+06 - Zabaykalsky
RU +6200+12940 Asia/Yakutsk MSK+06 - Lena River
RU +623923+1353314 Asia/Khandyga MSK+06 - Tomponsky, Ust-Maysky
RU +4310+13156 Asia/Vladivostok MSK+07 - Amur River

RU +643337+1431336 Asia/Ust-Nera MSK+07 - Oymyakonsky
RU +5934+15048 Asia/Magadan MSK+08 - Magadan
RU +4658+14242 Asia/Sakhalin MSK+08 - Sakhalin Island
RU +6728+15343 Asia/Srednekolymsk MSK+08 - Sakha (E); North Kuril Is
RU +5301+15839 Asia/Kamchatka MSK+09 - Kamchatka
RU +6445+17729 Asia/Anadyr MSK+09 - Bering Sea
RW -0157+03004 Africa/Kigali
SA +2438+04643 Asia/Riyadh
SB -0932+16012 Pacific/Guadalcanal
SC -0440+05528 Indian/Mahe
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SY +3330+03618 Asia/Damascus
SZ -2618+03106 Africa/Mbabane
TC +2128-07108 America/Grand_Turk
TD +1207+01503 Africa/Ndjamena
TF -492110+0701303 Indian/Kerguelen
TG +0608+00113 Africa/Lome
TH +1345+10031 Asia/Bangkok
TJ +3835+06848 Asia/Dushanbe
TK -0922-17114 Pacific/Fakaofu
TL -0833+12535 Asia/Dili
TM +3757+05823 Asia/Ashgabat
TN +3648+01011 Africa/Tunis
TO -2110-17510 Pacific/Tongatapu
TR +4101+02858 Europe/Istanbul
TT +1039-06131 America/Port_of_Spain
TV -0831+17913 Pacific/Funafuti
TW +2503+12130 Asia/Taipei
TZ -0648+03917 Africa/Dar_es_Salaam
UA +5026+03031 Europe/Kiev Ukraine (most areas)
UA +4837+02218 Europe/Uzhgorod Ruthenia
UA +4750+03510 Europe/Zaporozhye Zaporozh'ye/Zaporizhia; Lugansk/Luhansk (east)
UG +0019+03225 Africa/Kampala

UM +2813-17722 Pacific/Midway Midway Islands
UM +1917+16637 Pacific/Wake Wake Island
US +404251-0740023 America/New_York Eastern (most areas)
US +421953-0830245 America/Detroit Eastern - MI (most areas)
US +381515-0854534 America/Kentucky/Louisville Eastern - KY (Louisville area)
US +364947-0845057 America/Kentucky/Monticello Eastern - KY (Wayne)
US +394606-0860929 America/Indiana/Indianapolis Eastern - IN (most areas)
US +384038-0873143 America/Indiana/Vincennes Eastern - IN (Da, Du, K, Mn)
US +410305-0863611 America/Indiana/Winamac Eastern - IN (Pulaski)
US +382232-0862041 America/Indiana/Marengo Eastern - IN (Crawford)
US +382931-0871643 America/Indiana/Petersburg Eastern - IN (Pike)
US +384452-0850402 America/Indiana/Vevay Eastern - IN (Switzerland)
US +415100-0873900 America/Chicago Central (most areas)
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US +394421-1045903 America/Denver Mountain (most areas)
US +433649-1161209 America/Boise Mountain - ID (south); OR (east)
US +332654-1120424 America/Phoenix MST - Arizona (except Navajo)
US +340308-1181434 America/Los_Angeles Pacific
US +611305-1495401 America/Anchorage Alaska (most areas)
US +581807-1342511 America/Juneau Alaska - Juneau area
US +571035-1351807 America/Sitka Alaska - Sitka area
US +550737-1313435 America/Metlakatla Alaska - Annette Island
US +593249-1394338 America/Yakutat Alaska - Yakutat
US +643004-1652423 America/Nome Alaska (west)
US +515248-1763929 America/Adak Aleutian Islands
US +211825-1575130 Pacific/Honolulu Hawaii
UY -345433-0561245 America/Montevideo
UZ +3940+06648 Asia/Samarkand Uzbekistan (west)
UZ +4120+06918 Asia/Tashkent Uzbekistan (east)
VA +415408+0122711 Europe/Vatican
VC +1309-06114 America/St_Vincent
VE +1030-06656 America/Caracas
VG +1827-06437 America/Tortola
VI +1821-06456 America/St_Thomas
VN +1045+10640 Asia/Ho_Chi_Min
VU -1740+16825 Pacific/Efate
WF -1318-17610 Pacific/Wallis
WS -1350-17144 Pacific/Apia
YE +1245+04512 Asia/Aden
YT -1247+04514 Indian/Mayotte
ZA -2615+02800 Africa/Johannesburg
ZM -1525+02817 Africa/Lusaka
ZW -1750+03103 Africa/Harare

Found in path(s):

```
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/zoneinfo/zone.tab
```

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```
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* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/man/man8/zdump-8-gz/zdump.8
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/man/man3/newctime-3-gz/newctime.3
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/man/man3/newtzset-3-gz/newtzset.3
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/man/man8/zic-8-gz/zic.8
* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/man/man8/tzselect-8-gz/tzselect.8
```

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ISO 3166 alpha-2 country codes

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2009-05-17 by Arthur David Olson.

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From Paul Eggert (2015-05-02):

This file contains a table of two-letter country codes. Columns are

separated by a single tab. Lines beginning with '#' are comments.

All text uses UTF-8 encoding. The columns of the table are as follows:

#

1. ISO 3166-1 alpha-2 country code, current as of

ISO 3166-1 N976 (2018-11-06). See: Updates on ISO 3166-1

<https://isotc.iso.org/livelink/livelink/Open/16944257>

2. The usual English name for the coded region,

chosen so that alphabetic sorting of subsets produces helpful lists.

This is not the same as the English name in the ISO 3166 tables.

#

The table is sorted by country code.

#

This table is intended as an aid for users, to help them select time

zone data appropriate for their practical needs. It is not intended

to take or endorse any position on legal or territorial claims.

#

#country-

#code name of country, territory, area, or subdivision

AD Andorra
AE United Arab Emirates
AF Afghanistan
AG Antigua & Barbuda
AI Anguilla
AL Albania
AM Armenia
AO Angola
AQ Antarctica
AR Argentina
AS Samoa (American)
AT Austria
AU Australia
AW Aruba
AX Åland Islands
AZ Azerbaijan
BA Bosnia & Herzegovina
BB Barbados
BD Bangladesh
BE Belgium
BF Burkina Faso
BG Bulgaria
BH Bahrain
BI Burundi
BJ Benin
BL St Barthelemy
BM Bermuda
BN Brunei
BO Bolivia
BQ Caribbean NL
BR Brazil
BS Bahamas
BT Bhutan
BV Bouvet Island
BW Botswana
BY Belarus
BZ Belize
CA Canada
CC Cocos (Keeling) Islands
CD Congo (Dem. Rep.)
CF Central African Rep.
CG Congo (Rep.)
CH Switzerland
CI Côte d'Ivoire
CK Cook Islands
CL Chile
CM Cameroon
CN China

CO Colombia
CR Costa Rica
CU Cuba
CV Cape Verde
CW Curaçao
CX Christmas Island
CY Cyprus
CZ Czech Republic
DE Germany
DJ Djibouti
DK Denmark
DM Dominica
DO Dominican Republic
DZ Algeria
EC Ecuador
EE Estonia
EG Egypt
EH Western Sahara
ER Eritrea
ES Spain
ET Ethiopia
FI Finland
FJ Fiji
FK Falkland Islands
FM Micronesia
FO Faroe Islands
FR France
GA Gabon
GB Britain (UK)
GD Grenada
GE Georgia
GF French Guiana
GG Guernsey
GH Ghana
GI Gibraltar
GL Greenland
GM Gambia
GN Guinea
GP Guadeloupe
GQ Equatorial Guinea
GR Greece
GS South Georgia & the South Sandwich Islands
GT Guatemala
GU Guam
GW Guinea-Bissau
GY Guyana
HK Hong Kong
HM Heard Island & McDonald Islands

HN Honduras
HR Croatia
HT Haiti
HU Hungary
ID Indonesia
IE Ireland
IL Israel
IM Isle of Man
IN India
IO British Indian Ocean Territory
IQ Iraq
IR Iran
IS Iceland
IT Italy
JE Jersey
JM Jamaica
JO Jordan
JP Japan
KE Kenya
KG Kyrgyzstan
KH Cambodia
KI Kiribati
KM Comoros
KN St Kitts & Nevis
KP Korea (North)
KR Korea (South)
KW Kuwait
KY Cayman Islands
KZ Kazakhstan
LA Laos
LB Lebanon
LC St Lucia
LI Liechtenstein
LK Sri Lanka
LR Liberia
LS Lesotho
LT Lithuania
LU Luxembourg
LV Latvia
LY Libya
MA Morocco
MC Monaco
MD Moldova
ME Montenegro
MF St Martin (French)
MG Madagascar
MH Marshall Islands
MK North Macedonia

ML Mali
MM Myanmar (Burma)
MN Mongolia
MO Macau
MP Northern Mariana Islands
MQ Martinique
MR Mauritania
MS Montserrat
MT Malta
MU Mauritius
MV Maldives
MW Malawi
MX Mexico
MY Malaysia
MZ Mozambique
NA Namibia
NC New Caledonia
NE Niger
NF Norfolk Island
NG Nigeria
NI Nicaragua
NL Netherlands
NO Norway
NP Nepal
NR Nauru
NU Niue
NZ New Zealand
OM Oman
PA Panama
PE Peru
PF French Polynesia
PG Papua New Guinea
PH Philippines
PK Pakistan
PL Poland
PM St Pierre & Miquelon
PN Pitcairn
PR Puerto Rico
PS Palestine
PT Portugal
PW Palau
PY Paraguay
QA Qatar
RE Réunion
RO Romania
RS Serbia
RU Russia
RW Rwanda

SA Saudi Arabia
SB Solomon Islands
SC Seychelles
SD Sudan
SE Sweden
SG Singapore
SH St Helena
SI Slovenia
SJ Svalbard & Jan Mayen
SK Slovakia
SL Sierra Leone
SM San Marino
SN Senegal
SO Somalia
SR Suriname
SS South Sudan
ST Sao Tome & Principe
SV El Salvador
SX St Maarten (Dutch)
SY Syria
SZ Eswatini (Swaziland)
TC Turks & Caicos Is
TD Chad
TF French Southern & Antarctic Lands
TG Togo
TH Thailand
TJ Tajikistan
TK Tokelau
TL East Timor
TM Turkmenistan
TN Tunisia
TO Tonga
TR Turkey
TT Trinidad & Tobago
TV Tuvalu
TW Taiwan
TZ Tanzania
UA Ukraine
UG Uganda
UM US minor outlying islands
US United States
UY Uruguay
UZ Uzbekistan
VA Vatican City
VC St Vincent
VE Venezuela
VG Virgin Islands (UK)
VI Virgin Islands (US)

VN Vietnam
VU Vanuatu
WF Wallis & Futuna
WS Samoa (western)
YE Yemen
YT Mayotte
ZA South Africa
ZM Zambia
ZW Zimbabwe

Found in path(s):

* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/share/zoneinfo/iso3166.tab

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* /opt/cola/permits/1665668414_1683914125.2478206/0/tzdata-2019b-1-x86-64-pkg-tar-xz/usr/bin/tzselect

1.264 readline 8.0

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```

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```
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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1.268 nss 3.45

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```
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# here. Please keep the list sorted by first names.
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1.270 swscale 5

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1.272 libxv 1.0.11 2

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1.273 gzip 1.10

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1.274 vulkan-icd-loader 1.1.117-1

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1.275 sysstat 12.1.5

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1.276 busybox 1.35.0

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Julian Seward, Cambridge, UK.

jseward@bzip.org

bzip2/libbzip2 version 1.0.4 of 20 December 2006

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1.277 Idns 1.7.1

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/* From openssh 4.3p2 filename openbsd-compat/fake-rfc2553.h */

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/* from openssl 4.3p2 compat/strncpy.c */

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/*

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* AUTHOR: Aaron D. Gifford - <http://www.aarongifford.com/>

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*
* Modified by Jelte Jansen to fit in ldns, and not clash with any
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* Changes:
* - Renamed (external) functions and constants to fit ldns style
* - Removed _End and _Data functions
* - Added ldns_shaX(data, len, digest) convenience functions
* - Removed prototypes of _Transform functions and made those static
*
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*
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/* From openssl4.3p2 compat/inet_aton.c */

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1.278 gcc-lib 10.3.0

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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That's all there is to it!
DRuntime: Runtime Library for the D Programming Language

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GCC RUNTIME LIBRARY EXCEPTION

Version 3.1, 31 March 2009

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Version 3, 29 June 2007

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1.279 mailcap 2.1.48+14+g5811758 1

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1.280 rpcbind 1.2.5-2

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1.281 libsodium 1.0.18

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1.282 grep 3.3-1

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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1.284 nlhomann_json 3.11.2

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Version 3, 29 June 2007

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goproperties - properties file decoder for Go

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//

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package github

import (

 "context"

 "fmt"

)

// LicensesService handles communication with the license related

// methods of the GitHub API.

//

// GitHub API docs: <https://developer.github.com/v3/licenses/>

type LicensesService service

// RepositoryLicense represents the license for a repository.

type RepositoryLicense struct {

 Name *string `json:"name,omitempty"`

 Path *string `json:"path,omitempty"`

 SHA *string `json:"sha,omitempty"`

 Size *int `json:"size,omitempty"`

 URL *string `json:"url,omitempty"`

 HTMLURL *string `json:"html_url,omitempty"`

 GitURL *string `json:"git_url,omitempty"`

 DownloadURL *string `json:"download_url,omitempty"`

 Type *string `json:"type,omitempty"`

 Content *string `json:"content,omitempty"`

 Encoding *string `json:"encoding,omitempty"`

 License *License `json:"license,omitempty"`

}

func (l RepositoryLicense) String() string {

 return Stringify(l)

}

// License represents an open source license.

type License struct {

 Key *string `json:"key,omitempty"`

 Name *string `json:"name,omitempty"`

 URL *string `json:"url,omitempty"`

```

SPDXID      *string `json:"spdx_id,omitempty"`
HTMLURL     *string `json:"html_url,omitempty"`
Featured    *bool   `json:"featured,omitempty"`
Description *string `json:"description,omitempty"`
Implementation *string `json:"implementation,omitempty"`
Permissions *[]string `json:"permissions,omitempty"`
Conditions  *[]string `json:"conditions,omitempty"`
Limitations *[]string `json:"limitations,omitempty"`
Body        *string `json:"body,omitempty"`
}

func (l License) String() string {
    return Stringify(l)
}

// List popular open source licenses.
//
// GitHub API docs: https://developer.github.com/v3/licenses/#list-all-licenses
func (s *LicensesService) List(ctx context.Context) ([]*License, *Response, error) {
    req, err := s.client.NewRequest("GET", "licenses", nil)
    if err != nil {
        return nil, nil, err
    }

    var licenses []*License
    resp, err := s.client.Do(ctx, req, &licenses)
    if err != nil {
        return nil, resp, err
    }

    return licenses, resp, nil
}

// Get extended metadata for one license.
//
// GitHub API docs: https://developer.github.com/v3/licenses/#get-an-individual-license
func (s *LicensesService) Get(ctx context.Context, licenseName string) (*License, *Response, error) {
    u := fmt.Sprintf("licenses/%s", licenseName)

    req, err := s.client.NewRequest("GET", u, nil)
    if err != nil {
        return nil, nil, err
    }

    license := new(License)
    resp, err := s.client.Do(ctx, req, license)
    if err != nil {
        return nil, resp, err
    }
}

```

}

return license, resp, nil

}

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* /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/timeval.h

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- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/cdecl.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/gccmacro.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/xmalloc.h

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/** Load the authentication cookie from a file. This function is primarily * meant for PulseAudio's own tunnel modules, which need to load the cookie * from a custom location. Applications don't usually need to care about the * cookie at all, but if it happens that you know what the authentication * cookie is and your application needs to load it from a non-standard * location, feel free to use this function. \since 5.0 */

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- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/sample.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/glib-mainloop.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/volume.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/stream.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/introspect.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/simple.h
- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/scache.h
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Configuration file for PulseAudio clients. See pulse-client.conf(5) for
more information. Default values are commented out. Use either ; or # for
commenting.

; default-sink =
; default-source =
; default-server =
; default-dbus-server =

autospawn = no
; autospawn = yes
; daemon-binary = /usr/bin/pulseaudio
; extra-arguments = --log-target=syslog

; cookie-file =

; enable-shm = yes
; shm-size-bytes = 0 # setting this 0 will use the system-default, usually 64 MiB

; auto-connect-localhost = no
; auto-connect-display = no

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***/
/

/** \page threaded_mainloop Threaded Main Loop

*

* \section overv_sec Overview

*

* The threaded main loop implementation is a special version of the primary
* main loop implementation (see \ref mainloop). For the basic design, see
* its documentation.

*

* The added feature in the threaded main loop is that it spawns a new thread
* that runs the real main loop. This allows a synchronous application to use
* the asynchronous API without risking stalling the PulseAudio library.

*

* \section creat_sec Creation

*

* A pa_threaded_mainloop object is created using pa_threaded_mainloop_new().
* This will only allocate the required structures though, so to use it the
* thread must also be started. This is done through
* pa_threaded_mainloop_start(), after which you can start using the main loop.

*

* \section destr_sec Destruction

*

* When the PulseAudio connection has been terminated, the thread must be
* stopped and the resources freed. Stopping the thread is done using
* pa_threaded_mainloop_stop(), which must be called without the lock (see
* below) held. When that function returns, the thread is stopped and the
* pa_threaded_mainloop object can be freed using pa_threaded_mainloop_free().

*

* \section lock_sec Locking

*

* Since the PulseAudio API doesn't allow concurrent accesses to objects,

* a locking scheme must be used to guarantee safe usage. The threaded main loop API provides such a scheme through the functions `pa_threaded_mainloop_lock()` and `pa_threaded_mainloop_unlock()`.

* The lock is recursive, so it's safe to use it multiple times from the same thread. Just make sure you call `pa_threaded_mainloop_unlock()` the same number of times you called `pa_threaded_mainloop_lock()`.

* The lock needs to be held whenever you call any PulseAudio function that uses an object associated with this main loop. Make sure you do not hold on to the lock more than necessary though, as the threaded main loop stops while the lock is held.

* Example:

```
* \code
* void my_check_stream_func(pa_threaded_mainloop *m, pa_stream *s) {
*     pa_stream_state_t state;
*
*     pa_threaded_mainloop_lock(m);
*
*     state = pa_stream_get_state(s);
*
*     pa_threaded_mainloop_unlock(m);
*
*     if (state == PA_STREAM_READY)
*         printf("Stream is ready!");
*     else
*         printf("Stream is not ready!");
* }
* \endcode
```

* \section cb_sec Callbacks

* Callbacks in PulseAudio are asynchronous, so they require extra care when using them together with a threaded main loop.

* The easiest way to turn the callback based operations into synchronous ones, is to simply wait for the callback to be called and continue from there. This is the approach chosen in PulseAudio's threaded API.

* \subsection basic_subsec Basic callbacks

* For the basic case, where all that is required is to wait for the callback to be invoked, the code should look something like this:

* Example:

```

* \code
* static void my_drain_callback(pa_stream *s, int success, void *userdata) {
*     pa_threaded_mainloop *m;
*
*     m = userdata;
*     assert(m);
*
*     pa_threaded_mainloop_signal(m, 0);
* }
*
* void my_drain_stream_func(pa_threaded_mainloop *m, pa_stream *s) {
*     pa_operation *o;
*
*     pa_threaded_mainloop_lock(m);
*
*     o = pa_stream_drain(s, my_drain_callback, m);
*     assert(o);
*
*     while (pa_operation_get_state(o) == PA_OPERATION_RUNNING)
*         pa_threaded_mainloop_wait(m);
*
*     pa_operation_unref(o);
*
*     pa_threaded_mainloop_unlock(m);
* }
* \endcode

```

* The main function, `my_drain_stream_func()`, will wait for the callback to be called using `pa_threaded_mainloop_wait()`.

* If your application is multi-threaded, then this waiting must be done inside a while loop. The reason for this is that multiple threads might be using `pa_threaded_mainloop_wait()` at the same time. Each thread must therefore verify that it was its callback that was invoked. Also the underlying OS synchronization primitives are usually not free of spurious wake-ups, so a `pa_threaded_mainloop_wait()` must be called within a loop even if you have only one thread waiting.

* The callback, `my_drain_callback()`, indicates to the main function that it has been called using `pa_threaded_mainloop_signal()`.

* As you can see, `pa_threaded_mainloop_wait()` may only be called with the lock held. The same thing is true for `pa_threaded_mainloop_signal()`, but as the lock is held before the callback is invoked, you do not have to deal with that.

* The functions will not dead lock because the wait function will release

```

* the lock before waiting and then regrab it once it has been signalled.
* For those of you familiar with threads, the behaviour is that of a
* condition variable.
*
* \subsection data_subsec Data callbacks
*
* For many callbacks, simply knowing that they have been called is
* insufficient. The callback also receives some data that is desired. To
* access this data safely, we must extend our example a bit:
*
* \code
* static int * volatile drain_result = NULL;
*
* static void my_drain_callback(pa_stream*s, int success, void *userdata) {
*     pa_threaded_mainloop *m;
*
*     m = userdata;
*     assert(m);
*
*     drain_result = &success;
*
*     pa_threaded_mainloop_signal(m, 1);
* }
*
* void my_drain_stream_func(pa_threaded_mainloop *m, pa_stream *s) {
*     pa_operation *o;
*
*     pa_threaded_mainloop_lock(m);
*
*     o = pa_stream_drain(s, my_drain_callback, m);
*     assert(o);
*
*     while (drain_result == NULL)
*         pa_threaded_mainloop_wait(m);
*
*     pa_operation_unref(o);
*
*     if (*drain_result)
*         printf("Success!");
*     else
*         printf("Bitter defeat...");
*
*     pa_threaded_mainloop_accept(m);
*
*     pa_threaded_mainloop_unlock(m);
* }
* \endcode
*

```

- * The example is a bit silly as it would probably have been easier to just
- * copy the contents of success, but for larger data structures this can be
- * wasteful.
- *
- * The difference here compared to the basic callback is the value 1 passed
- * to pa_threaded_mainloop_signal() and the call to
- * pa_threaded_mainloop_accept(). What will happen is that
- * pa_threaded_mainloop_signal() will signal the main function and then wait.
- * The main function is then free to use the data in the callback until
- * pa_threaded_mainloop_accept() is called, which will allow the callback
- * to continue.
- *
- * Note that pa_threaded_mainloop_accept() must be called some time between
- * exiting the while loop and unlocking the main loop! Failure to do so will
- * result in a race condition. I.e. it is not ok to release the lock and
- * regrab it before calling pa_threaded_mainloop_accept().
- *
- * \subsection async_subsec Asynchronous callbacks
- *
- * PulseAudio also has callbacks that are completely asynchronous, meaning
- * that they can be called at any time. The threaded main loop API provides
- * the locking mechanism to handle concurrent accesses, but nothing else.
- * Applications will have to handle communication from the callback to the
- * main program through their own mechanisms.
- *
- * The callbacks that are completely asynchronous are:
- *
- * \li State callbacks for contexts, streams, etc.
- * \li Subscription notifications
- * /

Found in path(s):

- * /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/include/pulse/thread-mainloop.h

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* /opt/cola/permits/1665621533_1683840479.6072018/0/libpulse-12-2-2-x86-64-pkg-tar-xz/usr/share/vala/vapi/libpulse.vapi

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```

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1.300 libxft 2.3.3-1

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```

```
*/opt/cola/permits/1667739336_1683912592.0856156/0/zfs-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/src/zfs-0.8.1/include/sys/zfs_sa.h
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* /opt/cola/permits/1667739336_1683912592.0856156/0/zfs-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/src/zfs-0.8.1/include/zfs_prop.h

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0.8.1/include/sys/vdev RAIDZ impl.h

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0.8.1/include/spl/sys/fcntl.h
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* /opt/cola/permits/1667739336_1683912592.0856156/0/zfs-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/src/zfs-0.8.1/include/sys/dsl_synctask.h
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- *
- * z_compress_level/z_uncompress are nearly identical copies of the
- * compress2/uncompress functions provided by the official zlib package
- * available at <http://zlib.net/>. The only changes made we to slightly
- * adapt the functions called to match the linux kernel implementation
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- *
- * zlib.h -- interface of the 'zlib' general purpose compression library
- * version 1.2.5, April 19th, 2010
- *
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* Interface declarations for Skein hashing.
* Source code author: Doug Whiting, 2008.
* This algorithm and source code is released to the public domain.
*
* The following compile-time switches may be defined to control some
* tradeoffs between speed, code size, error checking, and security.
*
* The "default" note explains what happens when the switch is not defined.
*
* SKEIN_DEBUG -- make callouts from inside Skein code
* to examine/display intermediate values.
* [default: no callouts (no overhead)]
*
* SKEIN_ERR_CHECK -- how error checking is handled inside Skein
* code. If not defined, most error checking
* is disabled (for performance). Otherwise,
* the switch value is interpreted as:
* 0: use assert() to flag errors
* 1: return SKEIN_FAIL to flag errors
*
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*/opt/cola/permits/1667739336_1683912592.0856156/0/zfs-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/src/zfs-0.8.1/include/sys/zfs_sysfs.h
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* /opt/cola/permits/1667739336_1683912592.0856156/0/zfs-git-0-8-1-r0-63b88f7e-1-x86-64-pkg-tar-xz/usr/src/zfs-0.8.1/include/sys/spa_checksum.h

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```

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1.302 gpm 1.20.7.r27.g1fd1941 1

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1.305 sudo 1.9.5p2

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Allbery, Russ
Anderson, Jamie
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The following people have worked to translate sudo into other languages as part of the Translation Project, see <https://translationproject.org> for more details.

Albuquerque, Pedro
Blttermann, Mario

Bogusz, Jakub
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1.306 libxi 1.1.4-1

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```
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```

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1.308 dtc 1.4.6

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(principal original author of dtc and libfdt)

2 November 2007

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1.315 ffmpeg 4.2

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* Video Acceleration API (video encoding) encode sample

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/share/ffmpeg/examples/vaapi_encode.c

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```
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* The Video Decode and Presentation API for UNIX (VDPAU) is used for
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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/murmur3.h

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* Lagged Fibonacci PRNG

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xz/usr/share/ffmpeg/examples/resampling_audio.c

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-

xz/usr/share/ffmpeg/examples/scaling_video.c

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-

xz/usr/share/ffmpeg/examples/demuxing_decoding.c

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* An implementation of the TwoFish algorithm

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xz/usr/include/libavutil/downmix_info.h

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xz/usr/include/libavcodec/mediacodec.h

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* Blowfish algorithm
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xz/usr/include/libavutil/blowfish.h

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* filter layer

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xz/usr/include/libavfilter/avfilter.h

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```
/*
* Video Acceleration API (shared data between FFmpeg and the video player)
* HW decode acceleration for MPEG-2, MPEG-4, H.264 and VC-1
*
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xz/usr/include/libavcodec/vaapi.h
```

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/*

* Copyright (c) 2017 Jun Zhao

* Copyright (c) 2017 Kaixuan Liu

*

* HW Acceleration API (video decoding) decode sample

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/share/ffmpeg/examples/encode_audio.c

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/share/ffmpeg/examples/decode_video.c

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
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* A 32-bit implementation of the TEA algorithm

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Found in path(s):

```
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavutil/audio_fifo.h
```

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```
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```

Found in path(s):

```
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
```


xz/usr/include/libavutil/mastering_display_metadata.h

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* AES-CTR cipher

* Copyright (c) 2015 Eran Kornblau <erankor at gmail dot com>

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xz/usr/include/libavutil/aes_ctr.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/error.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/avfft.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_vaapi.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_d3d11va.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_drm.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_dxva2.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/replaygain.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavfilter/buffersrc.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/imgutils.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libswscale/version.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavdevice/version.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_vdpau.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/frame.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/vorbis_parser.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/timestamp.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/macros.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_mediacodec.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/buffer.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_qsv.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/pixelutils.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/dict.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_videotoolbox.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/version.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/dv_profile.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/hwcontext_cuda.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/adts_parser.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/fifo.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/file.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavdevice/avdevice.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/tx.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/avdct.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/intreadwrite.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/parseutils.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/motion_vector.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavfilter/buffersink.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/samplefmt.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/share/ffmpeg/examples/metadata.c

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* A 32-bit implementation of the XTEA algorithm

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/xtea.h

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* Videotoolbox hardware acceleration

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/videotoolbox.h

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/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/bin/ffmpeg: binary file matches

/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/bin/ffplay: binary file matches

/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/bin/ffprobe: binary file matches

/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/lib/libavcodec.so.58.54.100: binary file matches

/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/lib/libavdevice.so.58.8.100: binary file matches

/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-

xz/usr/lib/libavfilter.so.7.57.100: binary file matches
/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/lib/libavformat.so.58.29.100: binary file matches
/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/lib/libavutil.so.56.31.100: binary file matches
/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/lib/libpostproc.so.55.5.100: binary file matches
/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/lib/libswresample.so.3.5.100: binary file matches
/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/lib/libswscale.so.5.5.100: binary file matches

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-

xz/usr/share/ffmpeg/examples/avio_reading.c

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* LZO 1x decompression

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xz/usr/include/libavutil/lzo.h

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* JNI public API functions
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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-

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* An implementation of the CAST128 algorithm as mentioned in RFC2144

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xz/usr/include/libavutil/hdr_dynamic_metadata.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libpostproc/version.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavfilter/version.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavformat/version.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/share/ffmpeg/examples/transcode_aac.c

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xz/usr/include/libavutil/sha512.h
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavutil/ripemd.h
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xz/usr/include/libavutil/rational.h

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 * AC-3 parser prototypes
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```
*/opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavcodec/ac3_parser.h
```

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```
/*
 * Video Acceleration API (video transcoding) transcode sample
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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/share/ffmpeg/examples/vaapi_transcode.c

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/*

* Direct3D11 HW acceleration

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavcodec/d3d11va.h

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xz/usr/include/libavcodec/dirac.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/crc.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/mem.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/log.h

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/pixfmt.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/include/libavutil/common.h

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```
* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavutil/timecode.h
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xz/usr/include/libavutil/avstring.h

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<p>As a special exception, you can use a bitmap subtitle stream as input: it

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-xz/usr/share/doc/ffmpeg/ffmpeg.html

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* Intel MediaSDK QSV public API

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* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavcodec/avcodec.h

* /opt/cola/permits/1578117916_1683753024.8244066/0/ffmpeg-1-4-2-4-x86-64-pkg-tar-
xz/usr/include/libavformat/avformat.h

1.316 libssh2 1.10.0

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1.317 mpfr 4.0.2-1

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- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setschedprio.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/timer_getoverrun.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/clearenv.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/uselocale.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/memmove.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/malloc.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/statvfs.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/prctl.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/posix_spawn.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/unlocked_stdio.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/posix_fadvise.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_init.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strstr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/uname.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/tee.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dysize.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/tmpfs.5
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tzset.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_cleanup_push_defer_np.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_tryjoin_np.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/toupper.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_exit.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/vfork.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/atan.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sigsetops.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/abs.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getnetent.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/splICE.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strcoll.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sem_init.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/exp10.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sendmmsg.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/frexp.3

- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mq_open.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dlinfo.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/address_families.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/stime.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gsignal.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/idle.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/close.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/chmod.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_spin_lock.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/membarrier.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/chroot.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setresuid.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/utimensat.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lrint.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sigwaitinfo.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tcgetpgrp.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/rmdir.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/s390_guarded_storage.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/matherr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/log.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getdents.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getusershell.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getaddrinfo_a.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/threads.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/system.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/pipe.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/syslog.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/trunc.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_cleanup_push.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/rename.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lround.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/shm_open.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man3/getservent.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/times.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/random_r.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/inet.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fabs.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/toascii.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/sigevent.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/socketmark.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/readdir.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/dup.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/newlocale.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_self.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/acct.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/locale.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/intro.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/malloc_usable_size.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/usleep.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/memset.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_cancel.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/expm1.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fopencookie.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/clock_getcpuclid.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sigqueue.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/poll.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/shmctl.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/fork.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fmod.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fpurge.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/msr.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/umask.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/semop.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getgrent.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_setschedparam.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getpid.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sinh.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ulimit.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/_exit.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/get_phys_pages.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/bsearch.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strxfrm.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ctime.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ilogb.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sysv_signal.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/timegm.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_getattr_np.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/pty.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/wait.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_setstacksize.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ustat.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gcvt.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/mouse.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getuid.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_join.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/finite.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/full.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/uselib.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/logb.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getaddrinfo.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/random.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_kill_other_threads_np.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/abort.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/erfc.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getdirentries.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/regex.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strcmp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/migrate_pages.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/swapon.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mcheck.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/group_member.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/memfrob.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/init_module.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man2/remap_file_pages.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strverscmp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sysinfo.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/timer_settime.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/scalbn.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/iopl.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/write.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/fsync.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sched_getcpu.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/asinh.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/inode.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_setscheduler.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_create.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/credentials.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/clock_getres.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getprotoent_r.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/signal.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_testcancel.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ttyslot.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sigpause.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getumask.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/statx.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lseek64.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/gethostname.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ opendir.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getrlimit.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/execve.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ pthread_atfork.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fgetpwent.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/mount_namespaces.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/atexit.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/seekdir.3

- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mmap2.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/vmsplice.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/suffixes.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/chown.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/puts.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/semget.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sin.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_sigmask.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ctermid.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/recvmmsg.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getpagesize.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/process_vm_readv.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/atof.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fexecve.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/floor.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/syslog.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getw.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/memchr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/kill.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/readv.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/units.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mincore.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/open.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setschedparam.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getpw.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/udplite.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/malloc_trim.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/seccomp.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mq_receive.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strtoul.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lsearch.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fcloseall.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/atan2.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_yield.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man3/fgetgrent.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/clock_nanosleep.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getservent_r.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/vsock.7
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/clock.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/bsd_signal.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/basename.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/staffs.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/time.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/setlogmask.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/signal.7
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ftok.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_mutex_consistent.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/asin.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mbind.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/isfdtype.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/posix_openpt.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/y0.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/inet_net_pton.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/stpcpy.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/initrd.4
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getopt.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/assert.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gnu_get_libc_version.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/delete_module.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/man-pages.7
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/set_tid_address.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/vhangup.2
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getprotoent.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_equal.3
 * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/memcpy.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getauxval.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/byteorder.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/msync.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/reboot.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sync.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/remove.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/capabilities.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/inet_ntop.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/get_mempolicy.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/malloc_info.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/cbrt.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mallinfo.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sem_wait.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sleep.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/difftime.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_setaffinity_np.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sysfs.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mkstemp.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/inotify.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/drand48.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/psignal.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/execveat.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sysctl.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/cgroups.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/move_pages.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/canonicalize_file_name.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_setschedpolicy.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/glob.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fnmatch.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/namespaces.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/stat.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getmntent.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sigpending.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/raise.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tanh.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/nptl.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sem_post.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/INFINITY.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fseeko.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mkdtemp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sem_close.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tempnam.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/log1p.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/lseek.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/index.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/libc.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/open_by_handle_at.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/math_error.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setuid.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_getcpuclockid.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setup.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/on_exit.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mq_unlink.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strcascmp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_sigqueue.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getgrnam.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strchr.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/nice.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/hier.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/gettimeofday.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sqrt.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/bpf-helpers.7

- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ioctl_iflags.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/div.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setconcurrency.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dladdr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/rand.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/unlink.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ecvt.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/futimes.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/bstring.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mq_getattr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/realpath.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setname_np.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ether_aton.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/isalpha.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_rwlockattr_setkind_np.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/st.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/sysfs.5
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gets.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getrcent_r.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/fuse.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/atoi.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/alarm.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pow10.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mallopt.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/keyctl.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/profil.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/rint.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/exp2.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getenv.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/aio.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/vm86.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/pipe.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/j0.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/catgets.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strlen.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/qecvt.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/putpwent.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mount.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/chdir.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ntp_gettime.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ffs.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strtol.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/intro.1

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/localeconv.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strptime.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sigsuspend.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sigreturn.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_init.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getdate.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strfry.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/adjtime.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/sprof.1

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/link.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getgroups.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/inet_pton.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/makecontext.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pow.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/locale.1

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/man.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/semctl.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/select_tut.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setcancelstate.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/futimesat.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/read.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/endian.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/round.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_setaffinity_np.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/access.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strcpy.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sync_file_range.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/qsort.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getlogin.3

- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_attr_setstackaddr.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tcgetsid.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/makedev.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strtok.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/putenv.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/shm_overview.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/sd.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/CPU_SET.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mq_getsetattr.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/alloc_hugepages.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setfsuid.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/termio.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/string.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/resolver.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_setattr.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/nextup.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strpbrk.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strsignal.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/shmget.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/setlocale.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/timer_delete.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/sigwait.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/timeradd.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getipnodebyname.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/insque.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getdomainname.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/exp.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/modify.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/umount.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/path_resolution.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/intro.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/log2.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strdup.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/lookup_dcookie.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fgetc.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/bzero.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/asprintf.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/set_mempolicy.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/flock.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mktemp.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/mq_overview.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/pthread_mutexattr_setrobust.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/pkey_alloc.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getline.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/bindresvport.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/tmpnam.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/services.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/pread.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/signal-safety.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/undocumented.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ceil.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/re_comp.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/stdio_ext.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gethostid.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mmap.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/shmop.2

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/passwd.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_suspend.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fenv.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-14.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dlopen.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_return.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/cp1252.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/encrypt.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/motd.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-6.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/inotify_rm_watch.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ioctl_console.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_yield.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-3.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lockf.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ttyname.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/cacheflush.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ftw.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/host.conf.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man2/sched_get_priority_max.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/mem.4

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/koi8-r.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-11.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/perror.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man8/iconvconfig.8

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/tty.4

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/sk98lin.4

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-4.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/group.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/gettutent.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/envIRON.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/s390_sthyi.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_rr_get_interval.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/listxattr.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/cp1251.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mlock.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/vcs.4

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/utf-8.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/errno.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/standards.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/nsswitch.conf.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strtoimax.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ipc.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setSID.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/intro.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/mremap.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/s390_pci_mmio_write.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ftime.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/networks.5

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/attributes.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/memusagestat.1

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/ascii.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man2/inotify_add_watch.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-2.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_error.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-10.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_setparam.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/setxattr.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-1.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-7.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/shells.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-9.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/repertoiremap.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/intro.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_fsyc.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/nanosleep.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcstoimax.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wordexp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getpass.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-5.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/dsp56k.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getxattr.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/modify_ldt.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man6/intro.6
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-15.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/hsearch.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/unicode.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/_syscall.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/printf.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/outb.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/protocols.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/ttytype.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-

5.02/man3/aio_cancel.3

- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/acct.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/ram.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/mtrace.1
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dlerror.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/inotify_init.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/posixoptions.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/removexattr.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/crypt.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getpwent_r.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/socketcall.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/ualarm.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getsid.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/nologin.5
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/hosts.5
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/unimplemented.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/setjmp.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/bootparam.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/utmp.5
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/updwtmp.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/rtc.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/localedef.1
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ptrace.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/s390_runtime_instr.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/brk.2
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/intro.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/ttyS.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-8.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/iconv.1
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strfmon.3
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-16.7
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/memusage.1
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/hd.4
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/sock_diag.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man8/intro.8
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/getent.1
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/securetty.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/armSCII-8.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/koi8-u.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/sched.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/login.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/cfree.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/lio_listio.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_write.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/aio_read.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/null.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sched_setaffinity.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dlsym.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/issue.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/iso_8859-13.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/glob.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/termios.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/fd.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/adjtimex.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ioperm.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/lp.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/termcap.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/bdflush.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getgrent_r.3

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.b"\" Modified 1993-07-24 by Rik Faith <faith@cs.unc.edu>'

.b"\" Modified 1995-09-26 by Andries Brouwer <aeb@cwil.nl>'

.b"\" and again on 960413 and 980804 and 981223.'

.b"\" Modified 1998-12-11 by Jamie Lokier <jamie@imbolc.ucc.ie>'

.b"\" Applied correction by Christian Ehrhardt - aeb, 990712'

.b"\" Modified 2002-04-23 by Michael Kerrisk <mtk.manpages@gmail.com>'

.b"\" \tAdded note on F_SETFL and O_DIRECT'

.b"\" \tComplete rewrite + expansion of material on file locking'

.b"\" \tIncorporated description of F_NOTIFY, drawing on'

.b"\" \tStephen Rothwell's notes in Documentation/dnotify.txt.'

.b"\" \tAdded description of F_SETLEASE and F_GETLEASE'

.b"\" Corrected and polished, aeb, 020527.'

.b"\" Modified 2004-03-03 by Michael Kerrisk <mtk.manpages@gmail.com>'

.b"\" Modified description of file leases: fixed some errors of detail'

.b"\" Replaced the term "lease contestant" by "lease breaker"'

.b"\" Modified, 27 May 2004, Michael Kerrisk <mtk.manpages@gmail.com>'

.b"\" Added notes on capability requirements'

.b"\" Modified 2004-12-08, added O_NOATIME after note from Martin Pool'

.b"\" 2004-12-10, mtk, noted F_GETOWN bug after suggestion from aeb.'

.b"\" 2005-04-08 Jamie Lokier <jamie@shareable.org>, mtk'

.b"\" \tDescribed behavior of F_SETOWN/F_SETSIG in'

.b"\" \tmultithreaded processes, and generally cleaned'

.b"\tup the discussion of F_SETOWN.'

.b"\t 2005-05-20, Johannes Nicolai <johannes.nicolai@hpi.uni-potsdam.de>,'

.b"\tmtk: Noted F_SETOWN bug for socket file descriptor in Linux 2.4'

.b"\tand earlier. Added text on permissions required to send signal.'

.b"\t 2009-09-30, Michael Kerrisk'

.b"\t Note obsolete F_SETOWN behavior with threads.'

.b"\t Document F_SETOWN_EX and F_GETOWN_EX'

.b"\t 2010-06-17, Michael Kerrisk'

.b"\tDocument F_SETPIPE_SZ and F_GETPIPE_SZ.'

.b"\t 2014-07-08, David Herrmann <dh.herrmann@gmail.com>'

.b"\t Document F_ADD_SEALS and F_GET_SEALS'

.b"\t 2017-06-26, Jens Axboe <axboe@kernel.dk>'

.b"\t Document F_{GET,SET}_RW_HINT and F_{GET,SET}_FILE_RW_HINT'

.b""

.b"\t or'

.b"\t .BR creat (2),'

.b"\t (Additional file descriptors referring to the same file'

.b"\t may have been obtained by calls to'

.b"\t .BR open "(2), " dup "(2), " dup2 "(2), or " fcntl ().)'

.b"\t FIXME . Review progress into POSIX'

.b"\t <http://austingroupbugs.net/view.php?id=768>'

.b"\t commit 57b65325fe34ec4c917bc4e555144b4a94d9e1f7'

.b""

.b""

.b"\t commit ef1820f9be27b6ad158f433ab38002ab8131db4d'

.b""

.b"\t The following appears to be rubbish. It doesn't seem to'

.b"\t be true according to the kernel source, and I can write'

.b"\t a program that gets a terminal-generated SIGIO even though'

.b"\t it is not the foreground process group of the terminal.'

.b"\t -- MTK, 8 Apr 05'

.b""

.b"\t If the file descriptor'

.b"\t .I fd'

.b"\t refers to a terminal device, then SIGIO'

.b"\t signals are sent to the foreground process group of the terminal.'

.b"\t The relevant place in the (2.6) kernel source is the'

.b"\t \switch\ in fs/fcntl.c::send_sigio_to_task() -- MTK, Apr 2005'

.b"\t send_sigurg()/send_sigurg_to_task() bypasses'

.b"\t kill_fasync()/send_sigio()/send_sigio_to_task()'

.b"\t to directly call send_group_sig_info()'

.b"\t-- MTK, Apr 2005 (kernel 2.6.11)'

.b""

.b"\t The following was true only up until 2.6.11:'

.b""

.b"\t Additionally, passing a nonzero value to'

.b"\t .B F_SETSIG'

.b"\t changes the signal recipient from a whole process to a specific thread'

.b"\" within a process.'

.b"\" See the description of

.b"\" .B F_SETOWN'

.b"\" for more details.'

.b"\" See fs/fcntl.c::send_sigio_to_task() (2.4/2.6) sources -- MTK, Apr 05'

.b"\" The following became true in kernel 2.6.10:'

.b"\" See the man-pages-2.09 Changelog for further info.'

.b"\" The following does seem a poor API-design choice...'

.b"\"

.b"\" One or more other seals are typically used with F_SEAL_WRITE'

.b"\" because, given a file with the F_SEAL_WRITE seal set, then,'

.b"\" while it would no longer be possible to (say) write zeros into'

.b"\" the last 100 bytes of a file, it would still be possible'

.b"\" to (say) shrink the file by 100 bytes using ftruncate(), and'

.b"\" then increase the file size by 100 bytes, which would have'

.b"\" the effect of replacing the last hundred bytes by zeros.'

.b"\"

.b"\"

.b"\" .BR _BSD_SOURCE ,'

.b"\" or'

.b"\" .PP'

.b"\" SVr4 documents additional EIO, ENOLINK and EOVERFLOW error conditions.'

.b"\" FIXME . Once glibc adds support, add a note about FTM requirements'

.b"\"

.b"\"

.b"\" e.g., Solaris 8 documents this field in fcntl(2), and Irix 6.5'

.b"\" documents it in fcntl(5). mtk, May 2007'

.b"\" Also, FreeBSD documents it (Apr 2014).'

.b"\"

.b"\" Neil Brown: With NFSv3 the failure mode is the reverse. If

.b"\" the server loses contact with a client then any lock stays in place'

.b"\" indefinitely ("why can't I read my mail"... I remember it well).'

.b"\"

.b"\"

.b"\" Jeff Layton:'

.b"\" Note that this is not a firm timeout. The server runs a job'

.b"\" periodically to clean out expired stateful objects, and it's likely'

.b"\" that there is some time (maybe even up to another whole lease period)'

.b"\" between when the timeout expires and the job actually runs. If the'

.b"\" client gets a RENEW in there within that window, its lease will be'

.b"\" renewed and its state preserved.'

.b"\"

.b"\" commit ef1820f9be27b6ad158f433ab38002ab8131db4d'

.b"\" commit f6de7a39c181dfb8a2c534661a53c73afb3081cd'

.b"\" FIXME . According to POSIX.1-2001, O_SYNC should also be modifiable'

.b"\" via fcntl(2), but currently Linux does not permit this'

.b"\" See http://bugzilla.kernel.org/show_bug.cgi?id=5994'

.b"\" glibc source: sysdeps/unix/sysv/linux/i386/sysdep.h'

.b"\" mtk, Dec 04: some limited testing on alpha and ia64 seems to'
.b"\" indicate that ANY negative PGID value will cause F_GETOWN'
.b"\" to misinterpret the return as an error. Some other architectures'
.b"\" seem to have the same range check as i386.'
.b"\"'
.b"\"'
.b"\" <http://marc.info/?l=linux-kernel&m=119013491707153&w=2>'
.b"\"'
.b"\" Reconfirmed by Jeff Layton'
.b"\" From: Jeff Layton <jlayton@redhat.com>'
.b"\" Subject: Re: Status of fcntl() mandatory locking'
.b"\" Newsgroups: gmane.linux.file-systems'
.b"\" Date: 2014-04-28 10:07:57 GMT'
.b"\" <http://thread.gmane.org/gmane.linux.file-systems/84481/focus=84518>'

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/charmap.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/locale.5
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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/user-session-keyring.7

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/btree.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/dbopen.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/syscall.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/daemon.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/recno.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/hostname.7
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==== Changes in man-pages-2.00 =====

Released: 2004-12-16

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Various pages

Fabian Kreutz

Many math pages had their synopses compressed, as per suggestion from Fabian Kreutz.

Various pages

Fabian Kreutz / aeb

Many minor content and formatting bug fixes were made to the math pages, following suggestions from Fabian Kreutz (who recently translated many of the 1.70 math pages into German) and Andries Brouwer.

Various pages

mtk

For consistency, all instances of "super-user" were changed to the more common "superuser".

Various pages

Vasya Pupkin / mtk

After a note from Vasya Pupkin, I added <errno.h> to the SYNOPSIS of several Section 2 pages using the _syscallN() macros.

In addition:

-- erroneous semicolons at the end of _syscallN() were removed on various pages.

-- types such as "uint" in syscallN() declarations were changed to "unsigned int", etc.

-- various other minor breakages in the synopses were fixed.

The affected pages are:

getdents.2
gettid.2
llseek.2
mmap2.2
modify_ldt.2
pivot_root.2
quotactl.2
readdir.2
sysctl.2
syslog.2
tkill.2

Typographical or grammatical errors have been corrected in several other places.

Changes to individual pages

bind.2

Florian Weimer

Added 'const' to declaration of 'my_addr' in prototype.
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=239762>.

fcntl.2

Martin Pool

Added O_NOATIME to list of flags that can be changed via F_SETFL.

mtk/aeb

Noted F_GETOWN bug after suggestion from aeb.

See also:

<http://marc.theaimsgroup.com/?l=linux-kernel&m=108380640603164&w=2>

getrlimit.2

mtk

Material on getrusage.2 has been separated out into its own page.

Rewrote discussion on RLIMIT_MEMLOCK to incorporate kernel

2.6.9 changes.

Added note on RLIMIT_CPU error in older kernels.

Added RLIMIT_SIGPENDING.

Also made a few other minor changes.

getrusage.2

mtk

This page is new(ish) -- it was created by splitting
getrlimit.2.

Repaired note on SIGCHLD behavior to note that the

POSIX non-conformance has been fixed in 2.6.9.

kill.2

Modified after suggestion from Emmanuel Colbus

Changed wording of sentence under NOTES describing
when signals can be sent to init(1).

mlock.2

munlock.2

mlockall.2

munlockall.2

These have been consolidated into a single mlock.2 page.

In the process, much duplication was eliminated

and new information was added about RLIMIT_MEMLOCK

and the changes in memory locking in kernel 2.6.9,

mmap.2

mtk

Added cross-ref to setrlimit(2) concerning memory locking limits.

Eric Estievenart

Note that MAP_FIXED replaces existing mappings

msgctl.2

mtk

Substantial language and formatting clean-ups.
Added msqid_ds and ipc_perm structure definitions.

msgget.2

mtk

Substantial language and formatting clean-ups.
Added notes on /proc files.

msgop.2

mtk

Substantial language and formatting clean-ups.
Added notes on /proc files.

open.2

Martin Pool

Added O_NOATIME (new in Linux 2.6.8)

mtk

Reordered list of 'flags' description alphabetically

personality.2

2004-11-03 applied patch from Martin Schulze

semctl.2

mtk

Substantial language and formatting clean-ups.
Rewrote semun text.
Added semid_ds and ipc_perm structure definitions.

semget.2

mtk

Substantial language and formatting clean-ups.
Added notes on /proc files.
Rewrote BUGS note about semget()'s failure to initialize semaphore values.

semop.2

mtk

Substantial language and formatting clean-ups.
Added notes on /proc files.

shmctl.2

mtk

Substantial language and formatting clean-ups.
Updated shmid_ds structure definitions.
Added information on SHM_DEST and SHM_LOCKED flags.
Noted that CAP_IPC_LOCK is not required for SHM_UNLOCK

since kernel 2.6.9.

Added notes on 2.6.9 RLIMIT_MEMLOCK changes.

Added RLIMIT_SIGPENDING (new in Linux 2.6.8)

shmget.2

mtk

Substantial language and formatting clean-ups.

Added notes on /proc files.

shmop.2

mtk

Substantial language and formatting clean-ups.

Changed wording and placement of sentence regarding attachment of segments marked for destruction.

sigaction.2

mtk

Added mention of SIGCONT under SA_NOCLDSTOP.

Added SA_NOCLDWAIT.

Updated discussion for POSIX.1-2001 and SIGCHLD and sa_flags.

Noted that CLD_CONTINUED is supported since Linux 2.6.9.

Added SI_TKILL (new in Linux 2.4.19).

Other minor changes.

signal.2

mtk

Removed text on ignoring SIGCHLD; replaced with pointer to sigaction.2.

sigwaitinfo.2

After bug report from Andrey Kiselev

Fixed prototype: "timeout" --> "*timeout"

as per: <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=222145>

stat.2

Enrico Zini

Added text to clarify that S_IS*() macros should be applied to st_mode field.

as per: <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=249698>

swapon.2

After Debian bug report from Anand Kumria

Added "no swap space signature" to EINVAL error.

mtk

Added EINVAL error for swapoff() ("not currently a swap area").

Added EBUSY error for swapon().

A few formatting fixes.

times.2

mtk

In Linux 2.6, the return value of times changed; it is no longer time since boot, but rather:

$$\text{boot_time} + 2^{32} / \text{HZ} - 300$$

Repaired note on SIGCHLD behavior to note that the POSIX non-conformance has been fixed in 2.6.9.
Some formatting fixes.

undocumented.2

After bug report from Johannes Berg

Changed

.TH UNIMPLEMENTED

to:

.TH UNDOCUMENTED

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=220741>

wait.2

mtk

Added waitid(2).

Added WCONTINUED and WIFCONTINUED (new in 2.6.10).

Added text on SA_NOCLDSTOP.

Updated discussion of SA_NOCLDWAIT to reflect 2.6 behavior.

Much other text rewritten.

wait4.2

mtk

Rewrote this page, removing much duplicated information, and replacing with pointers to wait.2.

Luis Javier Merino Morán / mtk

CONFORMING TO said "SVr4, POSIX". Changed to "4.3BSD"

waitid.2

mtk

New link to wait.2

assert.3

After bug report from Branden Robinson

The assert() failure message goes to stderr not stdout.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=284814>

ctime.3

mtk

Noted that 0 in tm_mday is interpreted to mean the last day of the preceding month.

getnameinfo.3

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=229618>

getnameinfo() does not set errno, it returns a non-zero value indicating the error.

mtk

added EAI_OVERFLOW error

killpg.3

mtk

Minor changes to SEE ALSO and CONFORMING TO.

lseek64.3

aeb

New page by Andries Brouwer

tzset.3

Richard Kreckel

Change "NULL" to "empty" when talking about the value of TZ.

http://sources.redhat.com/bugzilla/show_bug.cgi?id=601

printf.3

After bug report from Jan Kuznik

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=205736>

Fixed bad realloc() use in snprintf() example

realpath.3

mtk

Added discussion of resolved_path == NULL.

random.4

After bug report from John V. Belmonte

Updated init and quit scripts to reflect kernel 2.4/2.6 reality

(Scripts taken from drivers/char/random.c)

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=247779>

proc.5

mtk

Updated description of /proc/loadavg to include

nr_running(), nr_threads, last_pid.

rtsig-max and rtsig-nr went away in 2.6.8

updated statm, and fixed error in order of list

boot.7

applied patch from Martin Schulze

capabilities.7

mtk

Added O_NOATIME for CAP_FOWNER

netdevice.7

Karel Kulhavy and AEB

Formatting fix after note from Karel Kulhavy and AEB, plus a few wording fixes.

signal.7

mtk

/proc/sys/kernel/rtsig-* were superseded by RLIMIT_SIGPENDING in kernel 2.6.8.

tcp.7

mtk/aeb

Updated details of interaction of TCP_CORK and TCP_NODELAY.

==== Changes in man-pages-2.01 =====

Released: 2004-12-20

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Tony Crawford <tony@klosterdorf.de>

Apologies if I missed anyone!

Global changes

accept.2

close.2

send.2

setsid.2

socket.2

closedir.3

initgroups.3

mkstemp.3

opendir.3

readdir.3

telldir.3

Matthew Dempsky, mtk

triggered by <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=283179>

The wording describing how errno is set was fixed up in these pages.

Typographical or grammatical errors have been corrected in several other places.

Changes to individual pages

sendfile.2

mtk

Adjusted descriptions of argument file types to be closer to 2.6 reality.

Wording and formatting changes.

ctan.3

ctanh.3

Tony Crawford

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=270817>

Formulae on the pages should be $T = S / C$ not $T = C / S$.

errno.3

Martin Schulze, mtk

Removed errno declaration from prototype, added notes on historical need for this declaration.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=174175>

aio_return.3

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=224953>

Changed erroneous "aio_return(2)" to "aio_return(3)".

posix_openpt.3

mtk

New by mtk

ptsname.3

mtk

Added description of ptsname_r().

Added ERRORS.

ptsname_r.3

mtk

New link to ptsname.3.

shm_open.3

Matthew Gregan

add <fcntl.h> to synopsis

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=271243>

strcasecmp.3

Marek Habersack

.SH "CONFORMING TO"

-BSD 4.4

+BSD 4.4, SUSv3

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=234443>

strfry.3

Joshua Kwan

Added _GNU_SOURCE to prototype

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=213538>

strftime.3

Cartsen Hey

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=276248>

Changed range for "%S" from 0..61 to 0..60.

SUSv3 says 0..60. I think the manual page probably says 0..61, because that's what SUSv2 said.

(Some other implementations' man pages also say 0..61 -- e.g., Solaris 8 & 9, Tru64 5.1B; FreeBSD 5.1 says 0..60.)

The glibc manual currently says 0..60.

Given that SUSv3 says 0..60, I've changed the manual page to also say this:

-The second as a decimal number (range 00 to 61).

+The second as a decimal number (range 00 to 60).

+(The range is up to 60 to allow for occasional leap seconds.)

sysconf.3

Johannes Berg

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=226974>

-.BR POSIX2_FORT_RUN " - " _SC_2_FORT_DEV

+.BR POSIX2_FORT_DEV " - " _SC_2_FORT_DEV

system.3

Pedro Zorzenon

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=242638>

Noted use of `_XOPEN_SOURCE` to get macros from `<stdlib.h>`
for `wait(2)`.

mtk

Changed name of argument from 'string' to 'command' (like POSIX).

Noted that `glibc` does nowadays explicitly check for the existence
of the shell if 'command' is `NULL`, rather than the older behavior
of assuming the shell exists and always returning 1 if
'command' is `NULL`.

Other wording and formatting clean-ups.

undocumented.3

Remove some functions names that *are* documented.

==== Changes in man-pages-2.02 =====

Released: 2005-04-14

Contributors

The following people contributed notes, ideas, or patches that have
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Apologies if I missed anyone!

Global changes

ctime.3

tzselect.8

zdump.8

zic.8

Martin (Joey) Schulze

Removed SEE ALSO reference to nonexistent newctime(3).

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=236884>

Typographical or grammatical errors have been corrected in several other places.

Changes to individual pages

clone.2

mtk

Noted the PID caching behavior of NPTL's getpid() wrapper under BUGS.

Added futex(2), set_thread_area(2), set_tid_address(2), tkill(2) under SEE ALSO.

epoll_ctl.2

epoll_create.2

Marko Kohtala / mtk

Improved various error descriptions.

epoll_wait.2

David Lloyd / Mike Frysinger, Marko Kohtala

Added EINTR to errors.

fcntl.2

Jamie Lokier / mtk

Improved discussion of F_SETOWN and F_SETSIG with respect to multi-threaded programs.

Generally cleaned up the discussion of F_SETOWN.

Updated CONFORMING TO to note that F_GETOWN and F_SETOWN are now in POSIX.

link.2

mtk

Noted discrepancy between Linux and POSIX.1 when oldpath is a symbolic link.

See: http://bugs.linuxbase.org/show_bug.cgi?id=367

and: <http://www.opengroup.org/austin/mailarchives/ag/msg08152.html>

Michael Haardt / mtk

Clarified EXDEV error description: it isn't possible to link across mount points, even if the mount points refer to the same file system.

mincore.2

mtk, after note from Gordon Jin

Updated ERRORS.

pipe.2

As per message from Serguei Leontiev

Removed SVr2, AT&T, and BSD from CONFORMING TO, since a pipe on those systems is actually bidirectional.

(Pipes are implemented as STREAMS on the former, and sockets on the latter.)

posix_fadvise.2

mtk

Noted kernel version where posix_fadvise() appeared and noted bug in handling of 'len' in kernels < 2.6.6.

rename.2

Michael Haardt

Clarified EXDEV error description: it isn't possible to rename a file across mount points, even if the mount points refer to the same file system.

semop.2

mtk

Noted kernel version numbers for semtimedop().

setitimer.2

Matthias Lang, mtk

Noted MAX_SEC_IN_JIFFIES ceiling.

Added note about treatment of out-of-range tv_usec values.

sigqueue.2

Johan Walles, Martin (Joey) Schulze

Added sigqueue.2 to SEE ALSO.

times.2

mtk

Added notes on non-standard behavior: Linux allows 'buf' to be NULL, but POSIX.1 doesn't specify this and it's non-portable.

uselib.2

Andries Brouwer

Improved DESCRIPTION; clarified distinction between
EACCES and ENOEXEC.

bcopy.3

Heikki Orsila

bcopy() handles overlapping case, but memcpy() does not,
so for consistency memmove() should be also mentioned.

getmntent_r.3

Martin (Joey) Schulze

New link to man3/getmntent.3.

memcpy.3

Small wording change after suggestion from Sasa Stevanovic.

strcasestr.3

mtk

Created as link to strstr.3.

strptime.3

mtk

Noted that SUSv2 allowed a range of 00 to 61 for %S specifier.

strstr.3

mtk

Added description of strcasestr().

random.4

aeb

Improved description of read from /dev/urandom.

st.4

Kai Makisara

Substantial updates.

man.7

Martin Schulze

Branden Robinson

Colin Watson

Mention the .URL macro more verbosely.

==== Changes in man-pages-2.03 =====

Released: 2005-06-02

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Vincent Fourmond <vincent.fourmond@9online.fr>

Apologies if I missed anyone!

Global changes

console.4
console_ioctl.4
mouse.4
tty.4
vcs.4

 Pavel Heimlich

 Change `ttys(4)` to `ttyS(4)`.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

clone.2

 mtk

 Substantially enhanced discussion of CLONE_THREAD.

 Added CLONE_SYSVSEM, CLONE_UNTRACED, CLONE_STOPPED.

 Other minor fixes.

execve.2

 aeb

 Noted effect of ptracing when execing a set-UID program.

fcntl.2

 Johannes Nicolai / mtk

 Noted F_SETOWN bug for socket file descriptor in Linux 2.4

and earlier.

Added text on permissions required to send signal to owner.

flock.2

mtk

Noted that lock conversions are not atomic.

getrusage.2

mtk

ru_nswap has never contained useful information.

Kernel 2.6.6 clarified that with a patch

("[PATCH] eliminate nswap and cnswap"). See also:

<http://www.ussg.iu.edu/hypermail/linux/kernel/0404.1/0720.html>

kill.2

mtk

Clarified wording of the 'pid == -1' case.

mount.2

mtk

Added MNT_EXPIRE, plus a few other tidy-ups.

sched_setaffinity.2

mtk

Added text to note that sched_setaffinity() will migrate the affected process to one of the specified CPUs if necessary.

Added a NOTE to point out that the affinity mask is actually a per-thread attribute that can be adjusted independently for each thread in a thread group.

shmctl.2

mtk

Noted aberrant Linux behavior with respect to new attaches to a segment that has already been marked for deletion.

Noted changes in permissions required for SHM_LOCK/SHM_UNLOCK.

wait.2

mtk

Noted that the __W* flags can't be used with waitid().

confstr.3

mtk

Added _CS_GNU_LIBC_VERSION and _CS_GNU_LIBPTHREAD_VERSION.

hosts.5

Ross Boylan / Martin Schulze

various changes as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=304242>

proc.5

mtk

Minor changes to discussion of /proc/PID/stat signal fields.

Added 'rt_priority' and 'policy' to /proc/PID/stat.

capabilities.7

mtk

1,\$s/inherited/inheritable/g

regex.7

Vincent Fourmond / Joey (Martin) Schulze

Removed discussion of '['[:<:]]' and '['[:>:]]' since they do not seem to be in the glibc implementation.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=295666>

tzselect.8

Joey (Martin) Schulze / Klaus Ethgen

The default zoneinfo directory is now /usr/share/zoneinfo.

(was: /usr/local/etc/zoneinfo)

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=267471>

===== Changes in man-pages-2.04 =====

Released: 2005-06-21

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Various pages

mtk

For consistency across pages:

1,\$s/nonzero/non-zero/g

Typographical or grammatical errors have been corrected in several places.

New pages

pthread.7

mtk

An overview of the Linux implementations of POSIX threads.

Changes to individual pages

_exit.2

mtk

Various minor changes.

epoll_ctl.2

Mike Furr

BUGS: In kernels < 2.6.9, EPOLL_CTL_DEL required a non-NULL 'event', even though this argument is ignored.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=306517>

flock.2

mtk / Kevin Ryde

Clarified semantics of relationship between flock() locks and open file entries and file descriptors.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=291121>

getitimer.2

Olivier Croquette, Thierry Excoffier

Noted the existence of the short sleep bug (up to 1 jiffy).

getrlimit.2

mtk

RLIMIT_RSS only has affect "in 2.4.x", not "in 2.4 and later".

getrusage.2

Geoff Clare

Since Linux 2.6, the ru_nivcsw and ru_nivcsw fields are used.

nice.2

mtk / Guido Trotter

Rewrote description of return value.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=296183>

open.2

Walter Harms

O_DIRECT needs _GNU_SOURCE.

mtk

O_ASYNC works for pipes and FIFOs in Linux 2.6.

Various minor fixes.

atexit.3

mtk

Various minor changes.

exit.3

mtk

Various minor changes.

getopt.3

mtk / Philipp Spitzer

Fix description of return value.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=308359>

hsearch.3

mtk

Changed (char *) to (void *) in example.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=313607>

log1p.3

Justin Pryzby

Make log(3) SEE ALSO log1p(3),

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=309578>

makecontext.3

Tanaka Akira

Fix description of RETURN VALUE for makecontext(),
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=311800>

on_exit.3

mtk

Various minor changes.

rand.3

kabloom

Small fix to a code example,
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=194842>

realpath.3

mtk / Thomas Hood

When specifying resolved_path as NULL, realpath()
will (still) only allocate up to PATH_MAX bytes.
Plus other minor changes.
See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=239424>

rcmd.3

Dave Love

The required header file for these functions on Linux is <netdb.h>,
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=311680>

scanf.3

Olivier Guilyardi

Arg for %p is a pointer to _a pointer to_ void,
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=263109>

stdin.3

Vincent Lefevre

freopen() can change the descriptors associated with
stdin/stdout/stderr, as per
<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=295859>

strerror.3

Baurjan Ismagulov

strerror_r(3) requires #define _XOPEN_SOURCE 600,
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=290880>

sysconf.3

Peter Cordes / mtk

Fix typo: "_SC_2_DEV" should be "_SC_2_C_DEV".

proc.5

mtk

Added pointers under /proc/sys/net to tcp.7 and ip.7.

ip.7

mtk

Various wording and formatting fixes.

Reordered /proc/sys/net/ipv4/ip_* file descriptions alphabetically.

tcp.7

Dieter Brueggemann / mtk

Fixes to the discussion of SIOCATMARK and tcp_stdurg.

mtk

Various wording and formatting fixes.

Incorporated some new /proc/sys/net/ipv4/tcp_* file descriptions from the 2.6.12 source file Documentation/networking/ip-sysctl.txt.

==== Changes in man-pages-2.05 =====

Released: 2005-06-27

Contributors

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places. (Special thanks to A Costa.)

Changes to individual pages

`_exit.2`

mtk / aeb

Reversed 2.04 introduction of the term "process termination function".

`close.2`

mtk

Clarified what type of lock `close()` affects.
Minor formatting changes.

`dup.2`

mtk

Consistent use of terms "open file description", "file status flags", and "file descriptor flags".
Removed mention of lock sharing -- it was not accurate.
Minor formatting fixes.

`fcntl.2`

mtk

Consistent use of terms "open file description", "file status flags", and "file descriptor flags".
Some rewriting of discussion of file descriptor flags
Under `F_DUPFD`, replaced some text duplicated in `dup.2` with a cross ref to `dup.2`
Minor wording and formatting fixes.

`fpclassify.3`

mtk / Martin (Joey) Schulze / Bas Zoetekouw

The return value of `isinf()` changed in glibc 2.02 to differentiate positive and negative infinity.
See: <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=285765>

`getgid.2`

`getuid.2`

Delian Krustev

Remove confusing text describing real and effective IDs.
As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=285852>

`getitimer.2`

mtk

The short sleep bug (up to 1 jiffy) that was newly noted in `man-pages-2.04` has just been fixed in 2.6.12.

`getpriority.2`

mtk

Changed range documented in main text from `-20..20` to `-20..19`.
Noted that the range is `-20..20` on some systems.

open.2

mtk / aeb

Clarification of term "open file description" along with explanation of what information it maintains.

Other wording improvements.

Various minor wording changes.

atexit.3

mtk / aeb

Reversed 2.04 introduction of the term "process termination function".

mtk

Noted use of atexit() for establishing function to be invoked on shared library unload.

Noted that atexit()-registered functions are not invoked on abnormal termination.

Formatting fixes.

exit.3

mtk / aeb

Reversed 2.04 introduction of the term "process termination function".

mtk

Minor rewording and formatting changes.

getloadavg.3

mtk

Added #define _BSD_SOURCE to prototype.

log.2.3

Martin (Joey) Schulze

Add ERANGE error.

readdir.3

mtk

Added definition of Linux dirent structure.

Some formatting cleanups.

strtod.3

Dora Anna Volgyesi / mtk

strtold() and strtod() need _ISOC99_SOURCE or _XOPEN_SOURCE=600

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=246668>

tdestroy.3

mtk

New link to tsearch.3.

tsearch.3

mtk

Added tdestroy to .TH line.

mem.4

mtk

Change "chown root:mem /dev/mem" to "chown root:kmem /dev/mem".

null.4

mtk

Change "chown root:mem /dev/null /dev/zero" to

"chown root:root /dev/null /dev/zero".

vcs.4

Dan Jacobson / Martin (Joey) Schulze

Replaced "selection(1)" by "gpm(8)" under SEE ALSO

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=253515>

signal.7

Ove Kaaven

SA_SIGACTION should be SA_SIGINFO

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=305369>

urn.7

mtk

New link to uri.7

==== Changes in man-pages-2.06 =====

Released: 2005-07-15

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Walter Harms <walter.harms@informatik.uni-oldenburg.de>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Many uses of hyphens and dashes were corrected.

New pages

canonicalize_file_name.3

Walter Harms / mtk

Removed Pages

sstk.2

mtk

AFAIK, this system call has never actually done anything (other than be a stub) on any Unix.

Changes to individual pages

accept.2

mtk

Various wording and formatting fixes.

bind.2

mtk

Minor formatting changes

clone.2

mtk

Various minor wording improvements; some formatting fixes

connect.2

mtk

Various wording and formatting fixes.

epoll_create.2

Bhavesh P Davda

s/positive/non-negative/ [for file descriptor]

getrlimit.2

mtk

Documented RLIMIT_MSGQUEUE limit.

RLIMIT_RSS ceased to have any effect in 2.4 in kernel 2.4.30.

(It already didn't have any effect in 2.2.x and 2.6.x.)

s/MADVISE_WILLNEED/MADV_WILLNEED/

listen.2

mtk

Removed historic comment on BSD backlog ceiling.

Minor wording and formatting changes.

semop.2

mtk

Added BUG: in some circumstances, a process that is waiting for a semaphore to become zero is not woken up when the value does actually reach zero.

<http://marc.theaimsgroup.com/?l=linux-kernel&m=110260821123863&w=2>

<http://marc.theaimsgroup.com/?l=linux-kernel&m=110261701025794&w=2>

socket.2

mtk

Various minor wording improvements

umask.2

mtk

Added mkdir(2) to discussion, made term "file mode creation mask" clearer.

Various, mostly small, wording changes

errno.3

Martin Pool

Change description for ESTALE

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=237344>

fgetgrent.3

getgrent.3

getgrent_r.3

David Lloyd

Added SEE ALSO putgrent(3)

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=211336>

getgrent.3

getgrnam.3

getpwent.3

getpwnam.3

Lars Wirzenius / mtk

Replace mention of /etc/{passwd,group} by references to "passwd/group database", and LDAP and NIS.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=316117>

mtk

Miscellaneous wording improvements

Consistent DESCRIPTION and ERRORS wording across these pages.

getnameinfo.3

mtk

Relocate misplaced text describing gai_strerror().

getnetent.3

Petter Reinholdtsen

s/endservent/endnetent/

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=316517>

getspnam.3

Lars Wirzenius / mtk

Replace mention of /etc/shadow by references to "shadow password database", and LDAP and NIS.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=316117>

mtk, Claus Weber

Miscellaneous wording improvements

Consistent DESCRIPTION wording vis-a-vis getpwnam.3 etc.

hsearch.3

Frederik Deweerdt

Fix hsearch_r() prototype

scanf.3

Justin Pryzby / mtk

Fix description of RETURN VALUE

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=317037>

mtk

various parts substantially rewritten; added description of %n\$ form; various text incorporated from the GNU C library documentation ((C) The Free Software Foundation).

shm_open.3

mtk

Modified details of how user and group ownership of a new object are set.

Various minor wording and formatting cleanups.

elf.5

Mike Frysinger

tweaked the short description to include definition of 'ELF'
add ELFOSABI_NONE to the ELFOSABI_list
tweak/add more machines to EM_list for ehdr->e_machine
fix indenting to be consistent
tweak the display of the ELF_ST_* macros
document the Elf_Dyn structure

proc.5

mtk

Updated discussion of /proc/stat.
Added text on the /proc/sys/fs/mqueue/* files.

ip.7

Steven Murdoch

Change protocol in UDP prototype.
As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=182635>

tcp.7

Dov Murik

The first sentence under NOTES about SO_KEEPALIVE and SIGPIPE
makes no grammatical sense (and possibly also no technical sense).
It has been removed.

==== Changes in man-pages-2.07 =====

Released: 2005-07-19

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Various pages

mtk

The terms "set-user-ID" and "set-group-ID" are now used
consistently (no abbreviations) across all manual pages.

Various pages

mtk

Consistent use of "saved set-user-ID" and "saved set-group-ID"
(no more "saved user ID", "saved effective UID",
saved group ID", etc.)

Various pages

mtk

Global fixes in textual descriptions:

uid --> UID

gid --> GID

pid --> PID

id --> ID

Various pages

mtk

Consistent use of st_atime, st_ctime, st_mtime, with
explanatory text, instead of atime/ctime/mtime.

Various pages

mtk

Classical BSD versions are now always named x.yBSD (formerly
there was a mix of x.yBSD and BSD x.y).

Typographical or grammatical errors have been corrected in several
places.

Changes to individual pages

setresuid.2

mtk

Some rewording.

stat.2

Mike Frysinger

Improve description of st_dev and st_rdev.

mtk

Various wording and formatting improvements.

truncate.2

mtk

Some formatting fixes

=====
===== Changes in man-pages-2.08 =====

Released: 2005-09-21

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Various pages

mtk

RFC references are now always written as "RFC\ nnn"
(not "RFC nnn" or "RFCnnn").

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

du.1

Mike Frysinger

To get an effect like "-h", BLOCKSIZE must start with "human", not "HUMAN".

time.1

Mike Frysinger

s/standard output/standard error/

clone.2

Paul Brook / mtk

Fix small error in description of CLONE_PARENT_SETTID

connect.2

Heikki Orsila

Add EINTR error

See <http://lkml.org/lkml/2005/7/12/254>

getpriority.2

mtk

Expanded discussion of relationship between user and kernel representations of the nice value.

Added discussion of RLIMIT_NICE and a cross reference to getrlimit.2 under the description of the EACCES error.

Noted 2.6.12 change in credentials checking for setpriority().

getrlimit.2

mtk

Added description of RLIMIT_RTPRIO

Added description of RLIMIT_NICE

mmap.2

mtk

Noted bug in MAP_POPULATE for kernels before 2.6.7.

mremap.2

mtk

Added _GNU_SOURCE to prototype.

Rewrote description of MREMAP_MAYMOVE.

Rewrote description of EAGAIN error.

Added discussion of resizing of memory locks.

Added entries to SEE ALSO.

Some formatting fixes.

msgctl.2

mtk

Added IPC_INFO, MSG_INFO, MSG_STAT descriptions.

nanosleep.2

Baurzhan Ismagulov

Add to prototype: define _POSIX_C_SOURCE 199309

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=314435>

nice.2

mtk

Added sentence noting that range of the nice value is described in `getpriority.2`.

Added cross-reference to `setrlimit(2)` for discussion on `RLIMIT_NICE`.

outb.2

David N. Welton / Justin Pryzby / mtk

Clarified the order of value and port arguments;

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=263756>

pause.2

mtk

Added SEE ALSO for `sigsuspend.2`

Some formatting fixes.

poll.2

Tommy Pettersson

`nfds` should be prototyped as `nfds_t`

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=322934>

mtk

Some wording and formatting improvements.

prctl.2

mtk

Since kernel 2.6.13 `PR_SET_DUMPABLE` can also have the value 2.

rand.3

Hrvoje Niksic / mtk

Remove misleading text describing FreeBSD's `sranddev()` function.

As per debian bug 328629

readv.2

mtk / Walter harms

Added LINUX NOTES on trickery performed by glibc when vector size exceeds `IOV_MAX`.

Formatting clean-ups.

remap_file_pages.2

mtk

Added text to note that start and size are both rounded downward.

sched_setparam.2

mtk

Modified discussion of privileges; added pointer to sched_setscheduler.2 for a discussion of privileges and resource limits.

sched_setscheduler.2

mtk

Modified discussion of privileges; added discussion of RLIMIT_RTPRIO.

semctl.2

mtk

Added IPC_INFO, SEM_INFO, SEM_STAT descriptions.

shmctl.2

mtk

Added IPC_INFO, SHM_INFO, SHM_STAT descriptions.

sigaction.2

mtk

Split sigpending(), sigprocmask(), and sigsuspend() out into separate new pages.

Other minor changes

mtk

NOTES: described SA_NODEFER / sa_mask bug which was present in all kernels up to and including 2.6.13.

See <http://marc.theaimsgroup.com/?l=linux-kernel&m=112360948603171&w=2> and <http://marc.theaimsgroup.com/?l=linux-kernel&m=112362164911432&w=2>

List: linux-kernel

Subject: Signal handling possibly wrong

From: Bodo Stroesser

Date: 2005-08-09 17:44:06

signal.2

mtk

Updated SEE ALSO to reflect splitting of sigaction.2 into sigaction.2, sigsuspend.2, sigpending.2, sigprocmask.2

sigpending.2

mtk

New page created by splitting out from sigaction.2

Changed CONFORMING TO.

sigprocmask.2

mtk

New page created by splitting out from sigaction.2

Added text on effect of NULL for 'set' argument.

Added text noting effect of ignoring SIGBUS, SIGFPE, SIGILL,
and SIGSEGV.

Noted that sigprocmask() can't be used in multithreaded process.

Fixed EINVAL error diagnostic.

Changed CONFORMING TO.

sigsuspend.2

mtk

New page created by splitting out from sigaction.2

Added NOTES on usage.

Added new text to DESCRIPTION.

Changed CONFORMING TO.

stat.2

Mike Frysinger

Improve st_blocks description.

carg.3

Ramiro Aceves / aeb

Change:

One has $\text{carg}(z) = \text{atan}(\text{creal}(z) / \text{cimag}(z))$

to:

One has $\text{tan}(\text{carg}(z)) = \text{cimag}(z) / \text{creal}(z)$

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=326720>

cmmsg.3

mtk

s/SOL_TCP/IPPROTO_TCP/ (POSIX standard name)

dlopen.3

Alain Portal

s/-nostartupfiles/-nostartfiles/

getaddrinfo.3

mtk

Nowadays (since 2.3.4) glibc only sets the first ai_canonname field if AI_CANONNAME was specified (the current behavior is all that SUSv3 requires).

1,\$s/PF_/AF_/g

Added descriptions of AI_ALL, AI_ADDRCONFIG, AI_V4MAPPED,
and AI_NUMERICSERV.

Some wording and formatting fixes.

getpwnam.3

Bernhard R. Link / mtk

Add NOTES text describing relationship of pw_dir and HOME and
pointing out that applications should preferentially inspect HOME.

inet.3

Mike Frysinger

Mention "little endian" and "big endian".
Added note about octal and hex interpretation of
numbers-and-dots notation.

rpc.3

mtk / Ludovic Courtes

Commented out references to rpc_secure(3) -- we don't currently
have such a page in the man-pages set.
In response to <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=325115>

setenv.3

mtk

glibc 2.3.4 fixed the "name contains '='" bug.

strlen.3

Mike Frysinger

Added "#define _GNU_SOURCE" to prototype.

initrd.4

Norbert Buchmuller / mtk

Added text noting that the use of real-root-dev for changing
the root device is obsolete, in favor of pivot root.
(However, the page still needs to be rewritten to actually
describe the pivot_root method...)
As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=323621>

proc.5

mtk

Improve text describing /proc/sys/fs/mqueue/* files.

Describe /proc/sys/fs/suid_dumpable (new in 2.6.13).

Added placeholder mention of /proc/zoneinfo (new in 2.6.13).
More needs to be said about this file.

Repaired earlier cut and paste mistake which resulted

in part of the text of this page being duplicated.

utmp.5

Mike Frysinger

Added text on biarch details for ut_session and ut_tv.

capabilities.7

mtk

Added CAP_AUDIT_CONTROL and CAP_AUDIT_WRITE.

ip.7

mtk / Andrew Pimlott

Add a couple of words to make it clear that port is a 16-bit number.
Reformat long source lines (no text changed).

s/SOL_IP/IPPROTO_IP/ (POSIX standard name)

Hasso Tepper

Fix discussion of IPC_RECVTTL / IP_TTL.

signal.7

mtk

Updated SEE ALSO to reflect splitting of sigaction.2 into
sigaction.2, sigsuspend.2, sigpending.2, sigprocmask.2.

socket.7

mtk

Clarified details of use of SO_PEERCRED.

tcp.7

mtk

s/SOL_TCP/IPPROTO_TCP/ (POSIX standard name)

s/SOL_IP/IPPROTO_IP/ (POSIX standard name)

udp.7

mtk

Added description of UDP_CORK socket option.

s/SOL_UDP/IPPROTO_UDP/ (POSIX standard name)

s/SOL_IP/IPPROTO_IP/ (POSIX standard name)

==== Changes in man-pages-2.09 =====

Released: 2005-10-13

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Tomas Pospisek <tpo_deb@sourcepole.ch>

Trond Myklebust <trond.myklebust@fys.uio.no>

Apologies if I missed anyone!

Global changes

ptsname.3

getpt.3

unlockpt.3

openpty.3

posix_openpt.3

grantpt.3

pts.4

tty_ioctl.4

mtk

Added SEE ALSO for new pty.7 page.

Typographical or grammatical errors have been corrected in several places.

New pages

pty.7

mtk

Overview of Unix 98 and BSD pseudo-terminals.

Changes to individual pages

ldd.1

mtk

Remove "-V" option (fix from Fedora man-pages-2.07-7).

fcntl.2

Peter Chubb / Trond Myklebust / mtk

Since kernel 2.6.10, a read lease can only be placed on a

file descriptor that is opened read-only.

See the following LKML thread of Aug 2005

("fcntl(F_GETLEASE) semantics??"):

<http://marc.theaimsgroup.com/?l=linux-kernel&m=112371777712197&w=2>

<http://marc.theaimsgroup.com/?l=linux-kernel&m=112374818213000&w=2>

<http://marc.theaimsgroup.com/?l=linux-kernel&m=112376335305284&w=2>

<http://marc.theaimsgroup.com/?l=linux-kernel&m=112377294030092&w=2>

mprotect.2

mtk

Add new text to ENOMEM error.

mremap.2

mtk

Added description of MREMAP_FIXED and 'new_address' argument under NOTES.

Revised text of EINVAL error.

read.2

Samuel Thibault / mtk

read() can fail with EINVAL when using O_DIRECT

mtk

Added open(2) to SEE ALSO.

shmget.2

mtk

s/int/size_t/ for type of 'size' argument (fix from Fedora man-pages-2.07-7).

write.2

Samuel Thibault / mtk

write() can fail with EINVAL when using O_DIRECT

atanh.3

mtk

Fix: s/acosh/atanh/ (fix from Fedora man-pages-2.07-7).

fopen.3

mtk

Improved "a+" description (fix from Fedora man-pages-2.07-7).

getrcent.3

mtk

s/getrcent/setrcent/ (fix from Fedora man-pages-2.07-7).

stdio.3

mtk / Justin Pryzby

Removed references to fopen() and fwopen(), which are

BSDisms that don't appear in glibc.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=331174>

strftime.3

mtk

Typo fix: %Ry ==> %Ey [SUSv3 mentions...] (fix from Fedora man-pages-2.07-7).

nsswitch.conf.5

mtk

s/network/networks/ (fix from Fedora man-pages-2.07-7).

proc.5

mtk

Added description of /proc/sys/vm/legacy_va_layout.

socket.7

mtk

Update description of SO_RCVLOWAT and SO_SNDBLOWAT.
(fix derived from Fedora man-pages-2.07-7).

===== Changes in man-pages-2.10 =====

Released: 2005-10-19

Global changes

The changes in this release consist **solely** of formatting fixes, with the aim bringing greater consistency to the manual pages according to the following rules:

- Function name references should **always** be followed by parentheses, "()" (possibly containing a manual page section number).
- The parentheses following a function name should **not** be formatted. Thus, for example, instead of:

.B name()

one should write:

.BR name ()

Much of the change was automated using two scripts:
add_parens_for_own_funcs.sh and unformat_parens.sh.

For the (possible) benefit of downstream manual page maintainers and translators, I have placed these scripts in a new subdirectory 'scripts'.

NOTE THE FOLLOWING POINTS WELL:

- These scripts provide a computer-assisted solution to the above two goals. However, they are not perfect, and their output should be scanned by a human. (To see what changes the two scripts *would* make, without making them, use the "-n" command line option.)
- The scripts do not fix all instances that violate the above rules: some manual fixes are required. Two further scripts are provided to help find remaining instances of function names without following "()": find_dots_no_parens.sh and find_slashes_no_parens.sh.

The following changes were made:

- add_parens_for_own_funcs.sh was applied to the pages in Sections 2 and 3.
- unformat_parens.sh was applied to pages in Sections 2, 3, 4, and 7 (the only sections where such changes were required).
- further changes (not so very many) were performed by hand. (found places to fix with the assistance of find_dots_no_parens.sh and find_slashes_no_parens.sh).

==== Changes in man-pages-2.11 =====

Released: 2005-10-24

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain PORTAL <aportal@univ-montp2.fr>

Apologies if I missed anyone!

Global changes

Various pages

mtk

Most instances of the constant "NULL" are not formatted (bolded) in

man pages, but a few are. For consistency, formatting on "NULL" has been removed where it occurred.

Many minor formatting fixes were made.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

getrlimit.2

mtk

Added EINVAL error for rlim_cur > rlim_max when calling setrlimit().

path_resolution.2

mtk

Repaired discussion of capabilities and file system UID, which mistakenly had involved exec() in the discussion.

prctl.2

mtk

Removed text saying there is no library interface. There is nowadays.

mkfifo.3

mtk

Minor change to RETURN VALUE text.

sk98lin.4

Alain Portal

Formatting fixes.

capabilities.7

mtk

Minor changes.

==== Changes in man-pages-2.12 =====

Released: 2005-10-31

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Martin Landers <martin.landlers@treibgut.net>
Michael Benedict <benedict@starbak.net>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

mlock.2

mtk

Reworded text around PAGESIZE, noting also that sysconf(_SC_PAGESIZE) can be used.

path_resolution.2

mtk / aeb

Removed words "as well" (added in 2.11) from the phrase "and it gets these last five capabilities if its fsuid is 0 as well" since there are (unusual) situations in which fsuid can be 0 while the effective UID is not.

Reworked (cut down) discussion of capabilities, moving part of it into capabilities.7

setresuid.2

mtk

Add text to note that setresuid() always modifies the file system UID, and setresgid() likewise always modifies the file system GID.

shmget.2

mtk

Added (brief) description of SHM_HUGETLB.

sigaltstack.2

mtk / Martin Landers

Noted that ss_sp is automatically aligned by the kernel.

byteorder.3

Brian M. Carlson / herbert

Change <netinet/in.h> to <arpa/inet.h> in prototype; add text explaining that some systems need the former header.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=265244>

capabilities.7

mtk

Reworked part of the discussion of exec() and capabilities.

Added sub-section "Effect of User ID Changes on Capabilities".

Reworked discussion of CAP_SYS_ADMIN and file-max.

===== Changes in man-pages-2.13 =====

Released: 2005-11-03

This release consists entirely of formatting and typographical fixes.

Global changes

Typographical or grammatical errors have been corrected in several places.

Various pages

mtk

Function and page cross references that were italicized were made bold (which is how the majority of function and page cross references were already done).

Various pages

mtk

Instances of things like "NULL-terminated string" were changed to "null-terminated string".

Various pages

mtk

Pathnames, structures, arguments, and <header-files> that were bold were changed to italics.

Various pages

mtk

Instances of the constant "NULL" that were bold-faced were made unformatted (which is how most instances of "NULL" were already formatted.)

==== Changes in man-pages-2.14 =====

Released: 2005-11-17

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

rexec.3

mtk / Justin Pryzby

This page is taken as is from the FreeBSD 5.4 distribution.

(Not checked against Linux reality, but likely things are the same.)

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=336875>

Changes to individual pages

arch_prctl.2

mtk

Updated discussion about lack of prototype in glibc.

execve.2

mtk

Improved description of E2BIG error: it relates to the sum of the bytes in both environment and argument list.

fcntl.2

mtk

Clarified parts of the discussion of file leases, noting effect of `open(O_NONBLOCK)`, interruption by signal handler, or termination by signal in lease breaker. In response to <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=339037>

stat.2

mtk / Stefan Brüns

Added LINUX NOTES describing nanosecond timestamps.

frexp.3

Volker Reichelt / mtk

Fixed to point out that `frexp()` returns a number whose *absolute* value is ≥ 0.5 and < 1 . Amended the example program to demonstrate this.

open.2

mtk / Avery Pennarun

Add `EWOULDBLOCK` error for file leases. In response to <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=339037>

putenv.3

mtk

Although the glibc implementation returns -1 on error (and some other man pages (e.g., the BSDs) also document that value for error returns), SUSv3 merely says "non-zero" (and this is what manual pages on many implementations also say).

posix_memalign.3

mtk

Formerly, the page said that all systems declare `memalign()` in `<malloc.h>`. In fact, many declare it in `<stdlib.h>`.

strtok.3

mtk

Almost a complete rewrite after Angelo pointed out that the existing page was deficient.

sd.4

Martin Schulze

Remove SEE ALSO for nonexistent `scsi.4`.

proc.5

mtk

Updated discussion of `/proc/sys/kernel/pid_max`.

signal.7

mtk

Added pthreads.7 to SEE ALSO.

ld.so.8

mtk

Fix typo: s/LD_DEBUG_OUTPUT/LD_PROFILE_OUTPUT/

===== Changes in man-pages-2.15 =====

Released: 2005-11-30

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Senthil Kumar <senthilkumar_sen@hotpop.com>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

sigvec.3 -- for details, see below.

sigset.3 -- for details, see below.

Changes to individual pages

kill.2

mtk

Added text describing the 2.6.[0-7] EPERM bug that occurred when sending signals to a process group.

sigaction.2

mtk

Noted that `si_signo` is unused on Linux.

sigpending.2

mtk

Added BUGS noting wrapper function problem that existed in glibc versions $\leq 2.2.1$.

sigpause.2

mtk

Moved to section 3; see also [sigpause.3](#) below.

sigsetops.3

mtk

Added a GLIBC NOTES section describing `sigisemtpyset()`, `sigandset()`, and `sigorset()`.

sigvec.2

sigblock.2

mtk

These pages have been deleted, and replaced by a new [sigvec.3](#) man page that more fully describes the BSD signal API.

siggetmask.2

sigmask.2

sigsetmask.2

mtk

These links to the now-deleted [sigblock.2](#) have been also been deleted. They are replaced by corresponding links in Section 3: [sigmask.3](#), [sigsetmask.3](#), [siggetmask.3](#).

sigvec.3

mtk

This new page provides a fuller description of the BSD signal API than was provided in the now-deleted [sigvec.2](#) and [sigblock.2](#).

sigblock.3

siggetmask.3

sigmask.3

sigsetmask.3

mtk

Created as links to [sigvec.3](#).

sigpause.3

mtk

Moved here from Section 2.

Some minor wording fixes; clarified System V origins of X/Open flavor of this function.

sigset.3

mtk

New page describing the System V signal API: sigset(), sighold(), sigelse(), sigignore().

strftime.3

James Vega

Add further text clarifying that %+ specifier is not supported in glibc2.

mtk

Added GLIBC NOTES section describing optional 'flag' and 'width' components of conversion specifiers.

Some wording changes to bring terminology closer to SUSv3.

Added an example program.

vm86old.2

mtk / aeb

Add as new link to vm86.2.

intro.7

mtk

Added a few words to reflect the fact that several of the section 7 pages provide overviews of various topics.

signal.7

mtk

Added some SEE ALSO entries.

socket.7

Senthil Kumar / mtk

Added text noting that select()/poll() do not respect SO_RCVLOWAT.

udp.7

Malcolm Scott

s/tcp_socket/udp_socket/ in example

Fixes <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=340927>

==== Changes in man-pages-2.16 =====

Released: 2005-12-02

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Urs Thuermann <urs@isnogud.escape.de>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

HOWTOHELP

Urs Thuermann

Added instructions for finding maintainer in Debian package.

poll.2

mtk

Added NOTES about INFTIM constant provided on some other implementations.

shmop.2

Alan Stern

The -1 error return of shmat() should be cast "(void *)".

strftime.3

aeb

Remove junk text (actually intended as source code comment in page).

ip.7

Urs Thuermann

Fix a typo: s/SOCK_RAW/SOCK_PACKET/

packet.7

Urs Thuermann

Clarification: s%SOCK_PACKET%PF_INET/SOCK_PACKET%

==== Changes in man-pages-2.17 =====

Released: 2005-12-13

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Urs Thuermann <urs@isnogud.escape.de>

Walter Harms <walter.harms@informatik.uni-oldenburg.de>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

fmemopen.3

Walter Harms / mtk

New documentation for the glibc-specific fmemopen() and open_memstream(). Based on glibc info page.

pipe.7

mtk (with prompting and suggestions for improvements by Michael Haardt)

New page providing overview of pipes and FIFOs.

Changes to individual pages

HOWTOHELP

mtk

Added notes on how to write example programs for manual pages.

fork.2

mtk

Added pointers to examples of fork() in wait.2 and pipe.2.

pipe.2

mtk

Added an example program.

Added SEE ALSO for new pipe.7 page.

wait.2

mtk

Added example program demonstrating use of fork() and waitpid().

carg.3

Justin Pryzby

Delete line that should have been deleted when applying
2.08 fix for this page.

getaddrinfo.3

mtk

Rearranged EAI_* list alphabetically.

inet.3

mtk

Added GLIBC NOTES describing feature test macros required
to expose declaration of inet_aton().

open_memstream.3

mtk

New link to new fmemopen.3.

fifo.4

mtk

Added SEE ALSO for new pipe.7 page.

environ.5

mtk

Removed BROWSER, since it seems not in fact to be common.

socket.7

Urs Thuermann

Added documentation of SO_TIMESTAMP.

tcp.7

mtk

Noted 200 millisecond ceiling imposed on TCP_CORK.

udp.7

mtk

Rearranged options into something approximating alphabetical order.

==== Changes in man-pages-2.18 =====

Released: 2005-12-15

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Mike Frysinger <vapier@gentoo.org>
Stefan Puiu <stefanpuiu@yahoo.com>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

bind.2

mtk

Added mention of AF_INET6 address family.
Added discussion of sockaddr structure and an example in the Unix domain.

recv.2

mtk

Put 'flags' list in alphabetical order.

send.2

mtk

Added cross-reference from discussion of MSG_MORE to UDP_CORK in udp(7).

Put 'flags' list in alphabetical order.

err.3

mtk

Added CONFORMING TO section noting that these are non-standard BSDisms.

errno.3

Justin Pryzby

Added SEE ALSO for errno.3.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=306867>

gethostbyname.3

Martin (Joey) Schulze / mtk

Added references to nsswitch.conf(5); remove cross references to resolv+(8).

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=308397>

perror.3

Justin Pryzby

Added SEE ALSO for perror.3 .

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=306867>

resolver.3

mtk / Martin (Joey) Schulze

Remove cross references to resolv+(8); add cross references to resolv.conf(5).

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=214892>

Added SEE ALSO entry for resolver(5);

see <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=251122>

strerror.3

mtk / Stefan Puiu

Rewrote and extended the discussion of the two flavors of strerror_r(), and added some additional information on strerror().

Justin Pryzby

Added SEE ALSO for strerror.3, as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=306867>

elf.5

Mike Frysinger

Fix three typos in identifier names.

operator.7

Karsten Sperling

The + operator should be in the list of unary operators.

raw.7

mtk

Small wording changes around discussion of SO_BSDCOMPAT.

Fixed a couple of wording errors elsewhere.

Reformatted some long lines.

socket.7

mtk, after a note by Stefan Puiu

Updated discussion of SO_BSDCOMPAT.

Reformatted some long lines.

Noted the Linux-specific feature whereby setsockopt() doubles the value given for SO_SNDBUF and SO_RCVBUF.

Noted kernel-imposed minimum values for SO_SNDBUF and SO_RCVBUF.

udp.7

mtk, after a note by Stefan Puiu

Updated discussion of SO_BSDCOMPAT.

unix.7

mtk

Added new (UN)SUPPORTED FEATURES section in which it is noted that Unix domain sockets do not support MSG_OOB or MSG_MORE.

Noted details of SO_SNDBUF and SO_RCVBUF support for Unix domain sockets.

==== Changes in man-pages-2.19 =====

Released: 2005-12-23

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Stefan Puiu <stefanpuiu@yahoo.com>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

HOWTOHELP

mtk

Minor changes.

bind.2

Stefan Puiu / mtk

Remove text under EINVAL error: "This may change in the future: see linux/unix/sock.c for details." This behavior has been unchanged for a long time, and seems unlikely to change.

Add EADDRINUSE to errors.

send.2

aeb

Add cmsg(3) to SEE ALSO.

fopen.3

Walter Harms / mtk

Added description of 'x' mode character (exclusive open).

pipe.7

mtk / aeb

Some wording changes to description of pipes.

===== Changes in man-pages-2.20 =====

Released: 2006-01-03

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

sigaltstack.2

mtk

Added some text to explain the usual scenario in which sigaltstack() is employed.

getloadavg.3

mtk

Noted that this function is available since glibc 2.2.

strcpy.3

mtk

s/nulls/null bytes/

capabilities.7

mtk

Noted that capability bounding set appeared with kernel 2.2.11.

arp.7

icmp.7

ip.7

ipv6.7

netdevice.7

packet.7

raw.7

rtnetlink.7

socket.7

tcp.7

unix.7

udp.7

mtk

The only changes to these pages have been for formatting:

- Structure definitions were changed to K&R style
- Some long source lines were broken to fit into ~70 character lines.

No changes were made to the content of these pages (yet...).

==== Changes in man-pages-2.21 =====

Released: 2006-01-16

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Senthil Kumar <senthilkumar_sen@hotpop.com>
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Apologies if I missed anyone!

Global changes

dd.1 cp.1
truncate.2 gethostname.2 lseek.2 listxattr.2 readlink.2
sysfs.2 stat.2 ustat.2 uname.2 getdomainname.2
argz_add.3 asprintf.3 confstr.3 bstring.3 bzero.3 dlopen.3 fwide.3
gethostbyname.3 getline.3 getlogin.3 getnameinfo.3 getpass.3 hsearch.3
perror.3 printf.3 readdir.3 scanf.3 stpcpy.3 strdup.3 strfmon.3
strftime.3 string.3 strptime.3 sysconf.3 termios.3 ttyname.3
dsp56k.4 tty_ioctl.4
elf.5 proc.5 termcap.5
charsets.7 unix.7

mtk

Various pages use inconsistent terms for 'null byte' (which is the C99/SUSv3 term for the '\0' character).

To rectify this the following changes were made in the above pages:

- Replace 'zero byte' with 'null byte'.
- Replace 'null character' with 'null byte'.
- Replace 'nulls' with 'null bytes'.
- Replace 'NUL-terminated' by 'null-terminated'.
- Replace 'NUL' by 'null byte'.
- Replace 'terminating NUL' by 'terminating null byte'.
- Replace 'final NUL' by 'terminating null byte'.
- Replace 'NUL character' by 'null byte'.

Various pages

mtk

Replace "SysV"/"SYSV" by "System V".

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

capget.2

mtk

Noted bug that could wrongly cause EPERM in unprivileged capset() with 'pid' field == getpid().

epoll_ctl.2

mtk

Noted that EPOLLONESHOT was added in 2.6.2.

gethostname.2

mtk

Added GLIBC NOTES describing operation of glibc's gethostname() wrapper function.

mmap.2

mtk / Mike Frysinger

Clarify relationship between mmap2(2) and mmap64(3).

mtk

A few other small rewordings.

mmap64.3

Mike Frysinger

New link to mmap.2.

open.2

mtk

Added BUG noting that O_ASYNC can't be enabled via open(): fcntl() must be used for this purpose.

recv.2

Stefan Puiu

Relocate misplaced discussion of MSG_DONTWAIT.

dlopen.3

mtk

Rewrote discussion of dlopen() 'flag' argument; added descriptions of RTLD_NOLOAD, RTLD_DELETE, and RTLD_DEEPBIND.

Noted use of atexit() to register a function that is automatically called when a library is unloaded.

fmemopen.3

mtk

Rewrote substantial parts of the page, and relicensed under GPL.

fseeko.3

Mike Frysinger

Add RETURN VALUE section.

getopt.3

mtk

Noted historical use of <stdio.h> to declare getopt().

qsort.3

mtk / Falk Hueffner

Clarify how strcmp() should be used as the 'compar' function by providing an example.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=348072>

proc.5

mtk

Noted that /proc/mounts is pollable since kernel 2.6.15.

Documented /proc/PID/task.

Noted that the contents of /proc/PID/{cwd,exe,fd,root,task} are not available if the main thread has terminated.

Senthil Kumar

Add pointer to random(4) for description of files under /proc/sys/kernel/random.

udp.7

Stefan Puiu / mtk

Small rewording of discussion of SO_BSDCOMPAT (add cross-ref to socket(7)).

==== Changes in man-pages-2.22 =====

Released: 2006-02-02

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Walter Harms <walter.harms@informatik.uni-oldenburg.de>

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

mmap.2

aeb / mtk

Noted that portable applications should specify fd as -1 when using MAP_ANONYMOUS.

Some rewriting of description of MAP_ANONYMOUS.

rt_sigreturn.2

Thorsten Kukuk

New link to sigreturn.2.

rt_sigsuspend.2

mtk

New link to sigsuspend.2.

waitid.2

mtk

Noted that waitid() does not set infop->si_uid field on most other implementations.

getopt.3

Walter harms / mtk

Make clear that when calling getopt_long() and there are no short options, then 'optstring' should be "", not NULL.

openpty.3

Thomas Hood / mtk

In glibc 2.0.92, openpty() was modified to preferably open Unix 98 ptys instead of BSD ptys.

qsort.3

mtk

Small rewording under EXAMPLES.

strtol.3

strtoul.3

Stefan Puiu

s/string must begin/string may begin/

proc.5

mtk

Documented inotify files under /proc/sys/fs/inotify:
max_queued_events, max_user_instances, and max_user_watches.

==== Changes in man-pages-2.23 =====

Released: 2006-02-10

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several
places.

New pages

inotify_init.2
inotify_add_watch.2
inotify_rm_watch.2

Robert Love, with some additions by mtk.

New pages describing the inotify API.

mbind.2

get_mempolicy.2

set_mempolicy.2

Andi Kleen, with additional work by mtk

New pages describing the NUMA memory allocation policy API.

Drawn from the set at <ftp://ftp.suse.com/pub/people/ak/numa>.

rtc.4

Urs Thuermann, with additional work by mtk

New page describing the real-time clock driver.

inotify.7

mtk

Overview of the inotify API.

Changes to individual pages

clone.2

Andi Kleen

On x86, clone() should not be called through vsyscall,
but directly through "int \$0x80".

fcntl.2

mtk

Small wording changes.

Added cross-ref to inotify.7 under the description of dnotify.

kill.2

mtk / Britton Leo Kerin

Small wording change under NOTES to clarify

what happens when a process sends a signal to itself.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=350236>

mlock.2

mtk / Matthias Andree

Added BUGS txt on interaction between MCL_FUTURE and
RLIMIT_MEMLOCK.

See the following LKML thread:

<http://marc.theaimsgroup.com/?l=linux-kernel&m=113801392825023&w=2>

"Rationale for RLIMIT_MEMLOCK"

msgop.2

mtk / Samuel Thibault

Rewrote declaration of 'msgop' to be "void *" in response

to <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=350884>

Various other wording fixes.

open.2

mtk

Clarify distinction between "file creation flags" and "file status flags".

read.2

Justin Pryzby

Add SEE ALSO for pread(2).

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=351873>

sched_setaffinity.2

mtk

Major rewrite.

select.2

mtk

Added return types to prototypes for FD_SET(), FD_CLR(), FD_ZERO, and FD_ISSET().

Other minor wording changes.

read.2

mtk

Add SEE ALSO for pwrite(2).

(Analogous with read.2 change above.)

errno.3

Kurt Wall / mtk

Add Linux specific errors to this page.

localeconv.3

mtk

Added cross-ref to locale.7 for 'struct lconv' defn.

Other minor wording changes.

Martin (Joey) Schulze

Added SEE ALSO refs for nl_langinfo.3

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=351831>

scanf.3

mtk / Justin Pryzby

Minor formatting & wording fixes.

setlocale.3

Martin (Joey) Schulze

Added SEE ALSO refs for nl_langinfo.3

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=351831>

proc.5

mtk

Migrated description of inotify files to the new inotify.7 page.

ascii.7

Dan Jacobson / mtk

Add text describing characters 001 to 037.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=342173>

locale.7

mtk

Minor wording and formatting changes.

===== Changes in man-pages-2.24 =====

Released: 2006-02-17

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Samuel Thibault <samuel.thibault@ens-lyon.org>

Apologies if I missed anyone!

New pages

get_kernel_syms.2

create_module.2

delete_module.2

init_module.2

query_module.2

FSF / mtk (with assistance of Luc Van Oostenryck)

man-pages finally gets pages for these system calls, several of which are obsolete in Linux 2.6.

Took the old GPLed pages dated 1996 and made a number of clean-ups and minor additions.

Global changes

various pages

mtk

Change "file name" to "filename"

Change "path name" to "pathname"

stpncpy.3

strstr.3

strcmp.3

toupper.3

strlen.3

stpcpy.3

puts.3

strdup.3

strtok.3

isalpha.3

strspn.3

gets.3

strpbrk.3

mtk after a suggestion from Samuel Thibault

Added SEE ALSO pointers to wide character equivalent functions

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=351996>

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

clone.2

mtk

Remove duplicate CLONE_STOPPED text.

Commented out crufty text describing EINVAL error for the now obsolete CLONE_DETACHED flag.

Under CLONE_SIGHAND, noted that 'flags' must also include CLONE_VM if CLONE_SIGHAND is specified.

fcntl.2

mtk

Under ERRORS: Separate out EAGAIN error for locking mmaped files.

inotify_add_watch.2

mtk

Minor wording fix.

msgop.2

mtk

Documented the EAGAIN error for msgrcv().

fnmatch.3

Mike Frysinger / mtk

Expand explanation of FNM_PATHNAME.

lockf.3

Joerg Habenicht / mtk

Fix up discussion of EAGAIN/EACCESS errors.

===== Changes in man-pages-2.25 =====

Released: 2006-03-02

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Michael Haardt <michael@morla.de>

Michael Wronski <michal.wronski@gmail.com>

Apologies if I missed anyone!

New pages

mq_close.3

mq_getattr.3

mq_notify.3

mq_open.3

mq_receive.3

mq_send.3

mq_unlink.3

mtk

New pages describing POSIX message queue API.

posix_fallocate.3

mtk, after a suggestion by James Peach

New page describing posix_fallocate().

mq_overview.7

mtk

New page giving overview of the POSIX message queue API.

Changes to individual pages

lseek.2

Michael Haardt

Add a case to the EINVAL error text.

mtk

Various minor wording fixes

Added SEE ALSO referring to new posix_fallocate.3.

posix_fadvise.2

mtk

Added "#define _XOPEN_SOURCE 600" to prototype.

Added SEE ALSO referring to new posix_fallocate.3.

proc.5

mtk

Migrated information on POSIX message queues to new mqueue.7 page.

inotify.7

Marten von Gagern

Fix thinko: s/assuming a non-blocking/assuming a blocking/

===== Changes in man-pages-2.26 =====

Released: 2006-03-21

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Walter Harms <walter.harms@informatik.uni-oldenburg.de>

Apologies if I missed anyone!

Global changes

clone.2

getdents.2

gettid.2

llseek.2

mmap.2.2

modify_ldt.2

pivot_root.2

quotactl.2

readdir.2

sysctl.2

syslog.2

tkill.2

mtk, aeb, Steve Beattie

Added comment in SYNOPSIS to note that syscall(2) may be preferable over _syscallN (see intro(2)).

Various minor formatting changes were done on a range of pages in Section 7. (No content was changed.)

New pages

openat.2

mtk

New page describing openat(2), added in kernel 2.6.16, and some notes on rationale for the at*(2) system calls.

mbind.2

Andi Kleen, Christoph Lameter, mtk

Added MPOL_MF_MOVE and MPOL_MF_MOVE_ALL descriptions, from numactl-0.9.2 man page.

Plus a few other smaller fixes.

fexecve.3

mtk

New page describing fexecve(3).

futimes.3

mtk

New page describing futimes(3).

Changes to individual pages

execve.2

mtk

Added SEE ALSO pointing to new fexecve.3.

intro.2

mtk, aeb, Steve Beattie

Added some notes on syscall(2) versus _syscall.

msgctl.2

msgget.2

msgop.2

mtk

Added SEE ALSO pointing to mq_overview.7.

open.2

mtk

Added SEE ALSO pointing to new openat.2.

Split out part of the RETURN VALUE text into separate NOTES section.

Modified wording referring to raw(8) to indicate that this interface is deprecated.

poll.2

mtk

Added discussion of ppoll(2), which is new in 2.6.16.

ppoll.2

mtk

New link to poll.2.

recvmsg.2

sendmsg.2

mtk / Paul Brook

Added text to note that although POSIX says msg_controllen should be socklen_t, glibc actually uses size_t.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=356502> and the associated glibc bug report.

http://sourceware.org/bugzilla/show_bug.cgi?id=2448

mtk

Various formatting fixes.

select.2

mtk

Updated to reflect the fact that pselect() has been implemented in the kernel in 2.6.16; various other minor wording changes.

pselect() prototype needs "#define _XOPEN_SOURCE 600".

tempnam.3

Justin Pryzby

Clean up description of EEXIST error.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=357893>

unlink.2

mtk

Added a little extra text to clarify EISDIR vs EPERM.

utime.2

mtk

Added new SEE ALSO entry pointing to new futimes.3 page.

exec.3

mtk

Added SEE ALSO pointing to new fexecve.3.

shm_unlink.3

mtk

New link to shm_open.3 (should have been made when page was originally written).

swab.3

Walter Harms

Add needed "#define _XOPEN_SOURCE".

undocumented.3

mtk

Updated to remove a few function names that are now documented.

capabilities.7

mtk

Various changes to bring this page closer to current kernel versions.

inotify.7

mtk

Noted that glibc 2.4 is required to get glibc support for inotify.

mq_overview.7

mtk

Some rewording and added a few words about System V

message queues.

netlink.7

Hasso Tepper

Substantial updates to various parts of this page.

mtk, Alain Portal

Minor fixes

pthread.7

mtk

Updated to reflect that the NPTL limitation that only the main thread could call setsid() and setpgid() was removed in 2.6.16.

raw.7

Hasso Tepper

Removed text implying that only in kernel 2.2 does IP_HDRINCL prevent datagrams from being fragmented.

socket.7

mtk

Documented SO_SNDBUFFORCE and SO_RCVBUFFORCE socket options, new in 2.6.14.

Placed socket options in alphabetical order.

==== Changes in man-pages-2.27 =====

Released: 2006-03-24

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Heiko Carstens <heiko.carstens@de.ibm.com>

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Paolo (Blaisorblade) Giarrusso <blaisorblade@yahoo.it>

Stefan Puiu <stefanpuiuro@yahoo.com>

Apologies if I missed anyone!

Global changes

man7/*

mtk

Various minor formatting changes were done on a range of pages in Section 7. (No content was changed.)

New pages

unshare.2

mtk, with reference to documentation by Janak Desai

New page describing unshare(2), added in kernel 2.6.16.

Changes to individual pages

clone.2

fork.2

vfork.2

mtk

Added SEE ALSO pointing to new unshare.2.

mbind.2

Christoph Lameter

MPOL_MF_MOVE_ALL requires CAP_SYS_NICE not CAP_SYS_RESOURCE.

mremap.2

mtk

Clarified the description of MREMAP_FIXED and restructured the text to reflect the fact that this flag is exposed by glibc since version 2.4.

ptrace.2

Chuck Ebbert, with assistance from Daniel Jacobowitz, Paolo (Blaisorblade) Giarrusso, and Charles P. Wright; after a suggestion from Heiko Carstens.

Document the following ptrace requests:

PTRACE_SETOPTIONS (2.4.6)

plus associated flags:

PTRACE_O_TRACESYSGOOD (2.4.6)

PTRACE_O_TRACEFORK (2.5.46)

PTRACE_O_TRACEVFORK (2.5.46)

PTRACE_O_TRACECLONE (2.5.46)
PTRACE_O_TRACEEXEC (2.5.46)
PTRACE_O_TRACEVFORKDONE (2.5.60)
PTRACE_O_TRACEEXIT (2.5.60)
PTRACE_SETSIGINFO (2.3.99-pre6)
PTRACE_GETSIGINFO (2.3.99-pre6)
PTRACE_GETEVENTMSG (2.5.46)
PTRACE_SYSEMU (since Linux 2.6.14)
PTRACE_SYSEMU_SINGLESTEP (since Linux 2.6.14)

sched_get_priority_max.2

sched_setscheduler.2

sched_setparam.2

mtk, Ingo Molnar

Modified to document SCHED_BATCH policy, new in kernel 2.6.16.

Text describing SCHED_BATCH was added to sched_setscheduler.2, and was drawn in part from Ingo Molnar's description in the mail message containing the patch that implemented this policy.

Various other minor rewordings and formatting fixes.

proc.5

mtk, using text from Documentation/filesystems/proc.txt

Document /proc/sys/vm/drop_caches, new in kernel 2.6.16.

mtk, using information from ChangeLog-2.6.14.

Document /proc/PID/smmaps, new in kernel 2.6.14.

capabilities.7

mtk

Noted affect of CAP_SYS_NICE for mbind(MPOL_MF_MOVE_ALL).

pthreads.7

mtk

Kernel 2.6.16 eliminated buggy behavior with respect to the alternate signal stack.

==== Changes in man-pages-2.28 =====

Released: 2006-03-31

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Aleksandr Blokhin <sass@altlinux.ru>

Greg Johnson <gjohnson@lanl.gov>

Apologies if I missed anyone!

New pages

sem_post.3

sem_getvalue.3

sem_close.3

sem_open.3

sem_destroy.3

sem_wait.3

sem_unlink.3

sem_init.3

sem_overview.7

mtk

New pages describing the POSIX semaphores API.

These pages supersede and provide a superset of the information in the glibc (3thr) "semaphores(3)" manual page.

Changes to individual pages

ppoll.2

Aleksandr Blokhin

Fix broken link.

ptrace.2

mtk

Wrapped long lines (no content changes).

semctl.2

semget.2

semop.2

mtk

Add SEE ALSO pointing to the new sem_overview.7 page.

elf.5

Greg Johnson

Removed SEE ALSO reference to nonexistent core(5).

==== Changes in man-pages-2.29 =====

Released: 2006-04-06

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Stefan Puiu <stefanpuiuro@yahoo.com>

Apologies if I missed anyone!

Global changes

getrlimit.2
prctl.2
sigaction.2
elf.5
signal.7
mtk
Added SEE ALSO entry referring to new core.5 page.

New pages

mkdirat.2
mtk
New page describing mkdirat(2), new in 2.6.16.

mknodat.2
mtk
New page describing mknodat(2), new in 2.6.16.

core.5
mtk
New page describing core dump files.

mkfifoat.3
mtk
New page describing mkfifoat(3).

Changes to individual pages

accept.2

getpeername.2

getsockname.2

Michael Haardt / mtk

Document EINVAL error for 'len' argument < 0.

fcntl.2

mtk

Expanded discussion of mandatory locking.

getrlimit.2

mtk

Added BUGS text on 2.6.x handling of RLIMIT_CPU limit
of zero seconds. See

<http://marc.theaimsgroup.com/?l=linux-kernel&m=112256338703880&w=2>

mkdir.2

mtk

Added SEE ALSO entry referring to new mkdirat.2.

mknod.2

mtk

Added SEE ALSO entry referring to new mkodat.2.

open.2

mtk / Roberto Jimenoca

Clarified discussion of file types affected by O_NONBLOCK.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=360243>

openat.2

mtk

Rewrote NOTES describing rationale for openat().

Various other minor changes.

recv.2

Stefan Puiu

Removed a misleading cross-ref to socket.2.

shmop.2

mtk

Since 2.6.17-rc1, shmdt() gives the error EINVAL in a further
circumstance: if shmaddr is not aligned on a page boundary.

unshare.2

mtk

Remove text saying that specifying invalid flags "is likely to cause compatibility problems" since the kernel now (2.6.17-rc1) contains an explicit check for invalid bits with a consequent EINVAL error.

mkfifo.3

mtk

Added SEE ALSO entry referring to new mkfifoat.3.

proc.5

mtk

Information on core_pattern and core_uses_pid has been migrated to the new core.5 page.

ip.7

Stefan Puiu

Removed paragraph referring to obsolete ipchains / ipfw(4).

sem_overview.7

mtk

Add SEE ALSO entry referring to pthreads.7.

==== Changes in man-pages-2.30 =====

Released: 2006-04-17

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Karel Kulhavy <clock@twibright.com>

Stefan Puiu <stefanpuiuro@yahoo.com>

Apologies if I missed anyone!

New pages

linkat.2

mtk

New page describing linkat(), new in kernel 2.6.16

renameat.2

mtk

New page describing renameat(), new in kernel 2.6.16

symlinkat.2

mtk

New page describing symlinkat(), new in kernel 2.6.16

unlinkat.2

mtk

New page describing unlinkat(), new in kernel 2.6.16

Changes to individual pages

link.2

mtk

Added SEE ALSO entry pointing to new linkat.2 page.

openat.2

mtk

Added SEE ALSO entries pointing to new *at.2 pages.

rename.2

mtk

Added SEE ALSO entry pointing to new renameat.2 page.

rmdir.2

mtk

Added SEE ALSO entry pointing to new unlinkat.2 page.

symlink.2

mtk

Added SEE ALSO entry pointing to new symlinkat.2 page.

unlink.2

mtk

Added SEE ALSO entry pointing to new unlinkat.2 page.

termios.3

mtk / Karel Kulhavy

Document the feature test macros required to expose various flags.

Karel Kulhavy

Clarify 'speed' argument for cfsetispeed() text.

Karel Kulhavy / mtk

Note that LOBLK is not implemented on Linux.

mtk

Clarify arguments for cfsetspeed().

Various formatting changes.

full.4

Andre Lehovich

Add a sentence describing the purpose of full(4).

core.5

aeb / mtk

Rework text describing circumstances in which
core dump files are not produced.

mtk / Stefan Puiu

A core dump of a multithreaded process always includes the
PID in the core filename.

mtk / Stefan Puiu

Eliminate some accidentally duplicated text.

===== Changes in man-pages-2.31 =====

Released: 2006-05-02

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Nishanth Aravamudan <nacc@us.ibm.com>

Reuben Thomas <rrt@sc3d.org>

Ryan S. Arnold <rsa@us.ibm.com>

Ulrich Drepper <drepper@redhat.com>

Apologies if I missed anyone!

Page renamings

The following pages have been relocated into section 7, since
that is their more natural home. SEE ALSO references in various
other pages have been adjusted.

epoll.4

fifo.4

futex.4

complex.5

environ.5

(many pages outside man-pages actually *expect*
'environ' to be in Section 7.)

ipc.5

renamed to svipc.7

".so" link files have been created to link the old file locations to the new file locations. These links are added just to ensure that cross references from any other (non-man-pages) pages will remain valid; eventually these links will be removed.

New pages

fstatat.2

mtk

New page for fstatat(2), new in 2.6.16.

adjtime.3

mtk

New page for adjtime(3).

error.3

Justin Pryzby / mtk

New page describing error() and error_at_line()

Fixes <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=186307>

program_invocation_name.3

mtk

New page describing program_invocation_name and
program_invocation_short_name variables.

socketmark.3

mtk

New page for socketmark(3).

ftm.7

mtk

New page describing feature test macros.

time.7

mtk

New page giving an overview of "time" on Linux systems.

Global changes

getgroups.2

wait4.2

chown.2

chdir.2

gettimeofday.2

initgroups.3

dirfd.3

mtk

Simplified wording around requirement for `_BSD_SOURCE` feature test macro.

times.2

time.2

gettimeofday.2

getitimer.2

nanosleep.2

ctime.3

rtc.4

mtk

Added SEE ALSO referring to new time.7.

err.3

errno.3

perror.3

strerror.3

Justin Pryzby / mtk

Add SEE ALSO referring to new error.3.

getdate.3

printf.3

scanf.3

mtk

Added SEE ALSO entry referring to setlocale.3.

Changes to individual pages

accept.2

Mark Glines

Remove mention of `SOCK_RDM` from this page, since this socket type does not support `accept()`ing connections.

adjtimex.2

mtk

Modified text referring to adjtime(); added SEE ALSO for new adjtime.3 page.

fsync.2

mtk, after a note by Karel Kulhavy

Rewrote most of the DESCRIPTION, as well as some other parts the page, to clarify use and operation of, and rationale for, fsync(2) and fdatsync(2).

getitimer.2

mtk

Updated discussion of maximum timer value to reflect the fact that the default jiffy is now 4 milliseconds.

Added text to note that current incorrect behavior of normalizing tv_usec ≥ 1000000 will be repaired in a future kernel; applications should be fixed now.

gettimeofday.2

Karel Kulhavy

Point out more explicitly that 'tz' argument should normally be NULL.

mtk

Various other minor edits and formatting fixes.

mount.2

mtk

Since kernel 2.6.16, MS_NOATIME and MS_NODIRATIME are settable on a per-mount basis.

Detail exactly which mount flags can be changed on MS_REMOUNT.

nanosleep.2

mtk / Karel Kulhavy

Clarify RETURN VALUE discussion.

openat.2

mtk

Add SEE ALSO reference pointing to new fstatat.2.

program_invocation_short_name.3

mtk

New link to new program_invocation_name.3.

recv.2

mtk

Added SEE ALSO for new socketmark.3.

rmdir.2

Joshua Kwan / Martin (Joey) Schulze / mtk

Correct wording of EBUSY case.

mtk

Add ".." case to ENOTEMPTY error

select.2

Karel Kulhavy

Note more clearly that fd_set arguments can be NULL.

mtk / Karel Kulhavy

Improve opening paragraph describing purpose of select().

mtk

Various other minor edits and formatting fixes.

semget.2

mtk / Nishanth Aravamudan

Add text to noting that the initial values of semaphores in a new set are indeterminate.

shmget.2

mtk

Add text noting that contents of newly created segment are zero values.

sigwaitinfo.2

mtk

Noted that all threads should block signal being waited for.

stat.2

Nishanth Aravamudan / mtk

Added NOTE that st_size is always returned as zero for most /proc files.

mtk

Add SEE ALSO reference pointing to new fstatat.2.

syscall.2

Justin Pryzby / mtk

Remove bogus BUGS text.

utime.2

mtk

Various minor changes.

confstr.3

mtk

Rewrote RETURN VALUE discussion.

Updated CONFORMING TO.

Removed BUGS.

ctanh.3

Martin (Joey) Schulze / mtk

Fix errors in DESCRIPTION.

ctime.3

mtk

The range of tm_sec is 0..60 (not 0..61).

error_at_line.3

error_message_count.3

error_on_per_line.3

error_print_progname.3

mtk

New links to new error.3.

fmemopen.3

mtk / Ryan S. Arnold

Add text noting that explicitly controlling output buffering may be useful to catch errors on output operations on an fmemopen() stream.

getline.3

Justin Pryzby

Add SEE ALSO pointing to getline.3.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=364772>

strtod.3

strtoul.3

mtk

Describe correct handling of errno in order to distinguish error from success after the call.

Added EXAMPLE section which points to strtol.3 which provides an example of the use of the analogous strtol(3).

strtol.3

mtk / Justin Pryzby

Add an example program.

mtk

Describe correct handling or errno in order to distinguish error from success after the call.

tmpfile.3

Reuben Thomas

DESCRIPTION does not need to say "temporary file name"

just "temporary file", since the name is in any case
unavailable to the user.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=363518>

mtk

In DESCRIPTION:

Change /automatically deleted when the program terminates normally/
to /automatically deleted when the program terminates/
since deletion occurs on both normal and abnormal termination.

ip.7

Karel Kulhavy / mtk

Various wording improvements and clarifications.

signal.7

mtk / Ulrich Drepper

Add text noting that a signal's disposition is process-wide,
shared by all threads.

mtk

Add text on changing signal dispositions.
Add text on "signal mask and pending signals".
Other minor edits.

time.7

mtk

Added SEE ALSO for new adjtime.3.

ld.so.8

Justin Pryzby

Remove bogus duplicate line.

==== Changes in man-pages-2.32 =====

Released: 2006-05-13

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Paul Brook <paul@nowt.org>

Pavel Heimlich <tropikhajma@seznam.cz>

Apologies if I missed anyone!

New pages

faccessat.2

mtk

New page for faccessat(2), new in 2.6.16.

fchmodat.2

mtk

New page for fchmodat(2), new in 2.6.16.

fchownat.2

mtk

New page for fchownat(2), new in 2.6.16.

futimesat.2

mtk

New page for futimesat(2), new in 2.6.16.

Changes to individual pages

access.2

mtk

Add SEE ALSO reference pointing to new faccessat.2 page.

capget.2

mtk

Reworded to reflect that capabilities are per-thread.

chmod.2

mtk

Add SEE ALSO reference pointing to new fchmodat.2 page.

chown.2

mtk

Add SEE ALSO reference pointing to new fchownat.2 page.

mmap.2

mtk

Updated discussion of MAP_NORESERVE since it is no longer restricted to MAP_PRIVATE mappings.

Add reference to discussion of /proc/sys/vm/overcommit_memory in proc.5.

openat.2

mtk

Add SEE ALSO reference pointing to new faccessat.2, fchmodat.2, fchownat.2, futimesat.2 pages.

shmget.2

mtk

Document SHM_NORESERVE flag, new in 2.6.15.

truncate.2

Paul Brook / mtk

Expand text noting that ftruncate()/truncate() may fail if asked to extend a file beyond its current length.

Add EPERM error.

utime.2

mtk

Add SEE ALSO reference pointing to new futimesat.2 page.

fopen.3

Justin Pryzby / mtk

Document 'm' (mmap) flag.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=365754>

mtk

Document 'c' (notcancel) flag.

futimes.3

mtk

Add SEE ALSO reference pointing to new futimesat.2 page.

qsort.3

Johannes Weiner

Add missing "const" qualifies to cast in EXAMPLE.

mtk

Slight rewording of comments in EXAMPLE.

termios.3

Karel Kulhavy

Clarify meaning of IXANY.

Clarify relationship of MIN with VMIN and TIME with VTIME.

mtk

Noted that CIBAUD, OFDEL, and DELECHO are not implemented on Linux.

Added explanatory paragraph for phrases "not in POSIX" and "XSI".

capabilities.7

mtk

Reworded to reflect that capabilities are per-thread.

Add ioprio_set() to list of operations permitted by CAP_SYS_NICE.

Add ioprio_set() IOPRIO_CLASS_RT and IOPRIO_CLASS_IDLE scheduling classes to list of operations permitted by CAP_SYS_ADMIN.

Note effects of CAP_SYS_NICE for migrate_pages().

===== Changes in man-pages-2.33 =====

Released: 2006-05-23

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Martin Osvald" <martin.osvald@gmail.com>

Stefan Puiu <stefanpuiuro@yahoo.com>

Apologies if I missed anyone!

Page renamings

ftm.7

mtk / Stefan Puiu

renamed to the more suggestive feature_test_macros.7

New pages

mq_getsetattr.2

mtk

New page briefly describing mq_getsetattr(2), the system call that underlies mq_setattr(3) and mq_getattr(3).

rpmatch.3

Justin Pryzby / mtk

New page for rpmatch(3).

Changes to individual pages

chmod.2

mtk

Remove mention of non-standard S_IREAD, S_IWRITE, S_IEXEC.
POSIX does now document ELOOP.

open.2

mtk

Remove mention of non-standard S_IREAD, S_IWRITE, S_IEXEC.

mmap.2

Justin Pryzby

Add mincore(2) to SEE ALSO.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=367401>

msync.2

Justin Pryzby

Note that EINVAL can also be caused by
flags == MS_SYNC | MS_ASYNC.

sched_setaffinity.2

mtk

Add CPU_ISSET, CPU_CLR, CPU_SET, CPU_ZERO to NAME section.

select.2

mtk

Various minor changes.

select_tut.2

mtk

Removed much material that is redundant with select.2.
Various other changes.

umask.2

mtk

Substantial rewrite of description of 'mask'.

CPU_ISSET.3

CPU_CLR.3

CPU_SET.3

CPU_ZERO.3

mtk

New links to sched_setaffinity.2

FD_CLR.3

FD_ISSET.3

FD_SET.3

FD_ZERO.3

mtk

New links to select.2.

fts.3

Justin Pryzby

Add SEE also referring to ftw.3.

ftw.3

Justin Pryzby

Add SEE also referring to fts.3.

getline.3

Justin Pryzby

Various minor clarifications.

mkstemp.3

mtk

Clarify that O_EXCL is an open(2) flag.

mq_open.3

Martin Osvald

Fix prototype declaration for 'attr'.

mq_notify.3

Martin Osvald

s/sigev_signal/sigev_signo/

mq_setattr.3

mtk

New link to mq_getattr.3.

mq_timedreceive.3

mtk

New link to mq_receive.3.

mq_timedsend.3

mtk

New link to mq_send.3.

setlocale.3

Justin Pryzby

Added SEE ALSO referring to rpmatch.3.

sigandset.3

sigisemptyset.3

sigorset.3

mtk

New links to sigsetops.3.

stdio.3

Justin Pryzby

Added SEE ALSO referring to unlocked_stdio.3

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=367667>

strchr.3

Justin Pryzby

Add description of strchrnul().

strchrnul.3

mtk

New link to strchr.3.

undocumented.3

Justin Pryzby / mtk

Updated to remove some functions that don't exist, and therefore don't need to be documented.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=367671>

unlocked_stdio.3

Justin Pryzby

Added SEE ALSO referring to stdio.3

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=367667>

mq_overview.7

mtk

Added section describing relationship between library interfaces and system calls.

Added SEE ALSO referring to new mq_getsetattr.2.

feature_test_macros.7

Stefan Puiu

Fix typo: s/_POSIX_C_SOURCE/_POSIX_SOURCE/

==== Changes in man-pages-2.34 =====

Released: 2006-06-20

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Thomas Dickey <dickey@radix.net>
Walter Harms <wharms@bfs.de>

Apologies if I missed anyone!

Global changes

tzselect.8

zdump.8

zic.8

mtk, Joey

Added header comment noting that these pages are in the public domain.

bindresvport.3

getrpcent.3

getrpcport.3

rpc.3

xdr.3

rpc.5

mtk, aeb, Joey

Added following to top of these pages to clarify origin and license:

.\ " This page was taken from the 4.4BSD-Lite CDROM (BSD license)

New pages

ioprio_set.2

Eduardo Madeira Fleury, with edits by mtk, and review by Jens Axboe

New page for ioprio_get(2) and ioprio_set(2), new in 2.6.13.

offsetof.3

Justin Pryzby / mtk

New page describing offsetof() macro.

Changes to individual pages

_exit.2

mtk

Add SEE ALSO referring to exit_group.2.

acct.2

mtk

Add SEE ALSO referring to acct.5.

fcntl.2

mtk

Explicitly mention term "dnotify" in discussion of F_NOTIFY.

inotify_add_watch.2

Aristeu Sergio Rozanski Filho / mtk

s/<inotify.h>/<sys/inotify.h>/ in prototypes.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=369960>

mtk

Renamed argument from 'path' to 'pathname'.

Reword introductory paragraph to clarify that

inotify_add_watch() may also modify an existing watch item.

mtk

The EINVAL error can also occur if 'fd' is not an inotify
file descriptor.

mtk

Moved BUGS section from this page to inotify.7.

inotify_init.2

Aristeu Sergio Rozanski Filho / mtk

s/<inotify.h>/<sys/inotify.h>/ in prototypes.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=369960>

inotify_rm_watch.2

Aristeu Sergio Rozanski Filho / mtk

s/<inotify.h>/<sys/inotify.h>/ in prototypes.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=369960>

mtk

The EINVAL error can also occur if 'fd' is not an inotify
file descriptor.

ioprio_get.2

mtk

New link to new ioprio_set.2.

mmap.2

mtk

Add SEE ALSO referring to remap_file_pages.2.

mount.2

Kenichi Okuyama

s/MNT_FORCE/MNT_EXPIRE/ under EINVAL error.

mremap.2

Mike Frysinger

s/unsigned long flags/int flags/ in SYNOPSIS.

pipe.2

mtk

Add SEE ALSO referring to popen.3.

posix_fadvise.2

mtk

Add SEE ALSO referring to readahead.2.

read.2

mtk

SEE ALSO for readv should refer to Section 2, not 3.

readahead.2

mtk

Add SEE ALSO referring to posix_fadvise.2.

send.2

Peter Eiserloh

Fix missing arguments in statement about equivalent send() and sendto() calls.

setsid.2

mtk

Add SEE ALSO referring to tcgetsid.3.

shmctl.2

mtk

Minor wording change at start of DESCRIPTION.

stat.2

mtk

Add SEE ALSO referring to access.2.

statfs.2

mtk

Relocated "Note" about f_fsid.

write.2

mtk

SEE ALSO for writev should refer to Section 2, not 3.

__setfpucw.3

mtk, Joey

Added license statement (GPL) after consultation with
Joerg Scheurich.

assert_perror.3

Justin Pryzby

Add #define _GNU_SOURCE to prototype

difftime.3

Joey

Added note about time_t representation on other systems.
Added CONFORMING TO.

ftw.3

Justin Pryzby / mtk

A fairly major revision...

Document FTW_ACTIONRETVL; include .SH "RETURN VALUE";

Reorganized and rewrote much of the page

Added an example program.

inet.3

Marc Lehmann

Fixed typo in NOTES.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=370277>

isalpha.3

Joey

Updated CONFORMING TO.

mktemp.3

mtk

Updated CONFORMING TO.

printf.3

Walter Harms

Add documentation of %m.

readdir.3

mtk

Added SEE ALSO referring to ftw.3.

re_comp.3

mtk

Note that these functions are obsolete in favor of regcomp(3).

Justin Pryzby

Add SEE ALSO referring to regcomp.3

scandir.3

Mats Wichmann

Reworded CONFORMING TO statement on scandir() and alphasort().

strchr.3

Stefan Puiu

Fix prototype for strchrnul().

strtoul.3

Stefan Puiu

Add text clarifying treatment of strings starting with minus sign.

tmpnam.3

mtk, after comments by Justin Pryzby

Add text noting the need to use open(O_EXCL).

mtk

Clarify discussion of use of free(3).

Various other minor changes to text and formatting.

tmpfile.3

mtk

Updated CONFORMING TO.

tmpnam.3

mtk, after comments by Justin Pryzby

Add text noting the need to use open(O_EXCL).

Updated CONFORMING TO.

undocumented.3

mtk

Remove offsetof(), which is now documented.

null.4

mtk

Added SEE ALSO referring to full.4.

console_codes.4

Thomas Dickey

Various improvements and corrections.

epoll.7

mtk

Added CONFORMING TO section mentioning FreeBSD kqueue and Solaris /dev/poll.

feature_test_macros.7

mtk

Added pointer to location of LFS specification.

futex.7

mtk, after suggestion by Joey.

Added license statement to page, after discussion with original author, bert hubert.

mtk

Reformat long lines; no content changes.

inotify.7

mtk

'path' argument renamed to 'pathname'.

A few minor rewordings.

Added BUGS section describing a couple of bugs.

ip.7

mtk

Add SEE ALSO referring to byteorder.3.

man.7

Justin Pryzby

Add SEE ALSO referring to groff_man(7).

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=369253>

==== Changes in man-pages-2.35 =====

Released: 2006-07-06

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

sync_file_range.2

Andrew Morton / mtk

New page for sync_file_range(2), new in kernel 2.6.17.

Changes to individual pages

adjtime.3

mtk

Noted BUG that occurs if 'delta' is specified as NULL.

See http://bugzilla.kernel.org/show_bug.cgi?id=6761

bind.2

Stefan Puiu

Add EADDRNOTAVAIL error.

Stefan Puiu / mtk

Make example code more complete.

epoll_ctl.2

mtk / Davide Libenzi

Added EPOLLRDHUP description.

mtk

Added SEE ALSO referring to poll.2.

poll.2

mtk / Davide Libenzi

Added POLLRDHUP description.

mtk

The correct header file is <poll.h>, not <sys/poll.h>.
Rewrote and reformatted various other parts.

readlink.2

mtk

Nowadays, readlink() returns 'ssize_t', as required in
POSIX.1-2001.

wavelan.4

mtk

Added license statement.

nscd.conf.5

Thorsten Kukuk

Add documentation for various new fields.

passwd.5

Horacio Rodriguez Montero

Add explanation of 'x' character in 'password' field.

mtk

The proper name of "*" is "asterisk" not "star".

tcp.7

Johan Lithander

Update RFC reference for ECN.

Andi Kleen

Add sentence on "low memory" limit for tcp_mem on 32-bit systems.

==== Changes in man-pages-2.36 =====

Released: 2006-07-11

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Kyle McMartin <kyle@mcmartin.ca>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

MAINTAINING

mtk

How to maintain man-pages.

TODO

mtk

Things that it would be nice to get done for man-pages one day.

scripts/FIXME_list.sh

mtk

This script, intended for use by manual page maintainers, displays the FIXMEs in the manual page source files.

Changes to individual pages

fdatsync.2

fsync.2

mtk

Added SEE ALSO referring to sync_file_range.2.

sendfile.2

mtk / Jens Axboe

Fix description of 'offset' argument to explain the case where 'offset' is NULL.

ferror.3

Justin Pryzby

Add SEE ALSO referring to fdopen.3.

intro.3

mtk

Removed information about Section 3 subsections -- it doesn't reflect current reality, and probably never has.

Added SEE ALSO referring to intro.2.

tcp.7

Kyle McMartin

Correction: tcp_window_scaling is ENabled by default.

Released: 2006-08-02

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Helmut Grohne <helmut@subdivi.de>

Ivana Varekova <varekova@redhat.com>

Thomas Huriaux <thomas.huriaux@gmail.com>

Ville Skyttä <ville.skytta@iki.fi>

Apologies if I missed anyone!

Global changes

Thomas Huriaux / mtk

Various formatting problems found as a result of reviewing the following command were fixed.

```
for a in $(wc -l man?/*.*| awk '$1 > 2 {print $2}' | grep -v total); do
    echo $a; groff -Tascii -wmac -mman $a > /dev/null;
done 2>&1 | less
```

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=378544>

Typographical or grammatical errors have been corrected in several places.

New pages

readlinkat.2

mtk (after prompting from Ivana Varekova)

New page for readlinkat(2), new in kernel 2.6.16.

Changes to individual pages

ldd.1

Ville Skyttä

Document "-u" option.

chdir.2

mtk

Noted effect of fork() and execve() on current working directory.

chroot.2

mtk

Noted effect of fork() and execve() on root directory.

epoll_ctl.2

Frank van Viegen / mtk

Fix description of EBADF error.

execve.2

mtk

Add text noting that effective IDs are copied to saved set-IDs during execve().

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=379297>

getitimer.2

mtk

Noted effect of fork() and execve() on interval timers.

getrlimit.2

mtk

Noted effect of fork() and execve() on resource limits.

getpriority.2

mtk

Noted effect of fork() and execve().

inotify_add_watch.2

mtk

Some rewording; included text describing required file permissions.

intro.2

mtk

Revised description of standards under CONFORMING TO.

makecontext.3

Helmut Grohne / mtk

Point out that args following 'argc' are int.

mtk

Added an example program.

Various minor wording fixes.

mmap.2

mtk

Expand description of MAP_POPULATE.

mtk, after prompting by Dean Gaudet

Expand description MAP_NONBLOCK.

mtk

Various minor formatting fixes.

openat.2

mtk

Added SEE ALSO linking to readlinkat.2.

nanosleep.2

mtk

Noted buggy behavior in Linux 2.4 and earlier when

nanosleep() is restarted after receiving stop+SIGCONT signals.

nice.2

mtk

Very minor rewording.

readlink.2

mtk

Added SEE ALSO linking to readlinkat.2.

sched_setscheduler.2

mtk

Noted preservation of scheduling parameters across execve().

setpgid.2

mtk

Noted effect of fork() and execve() on process group ID.

setsid.2

mtk

Noted effect of fork() and execve() on session ID.

umask.2

mtk

Noted effect of fork() and execve() on umask.

atexit.3

mtk

Noted inheritance of registrations across fork().

capabilities.7

mtk

Added material on privileges required for move_pages().

CLONE_NEWNS needs CAP_SYS_ADMIN.

keyctl(KEYCTL_CHOWN) and keyctl(KEYCTL_SETPERM) require CAP_SYS_ADMIN.

==== Changes in man-pages-2.38 =====

Released: 2006-08-03

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>

Apologies if I missed anyone!

Global changes

Most pages

mtk

There was a major reworking of the CONFORMING TO sections in most manual pages.

* generally try to rationalize the names used for standards.

The preferred names are now documented as the head words of the list in standards(7). For the future: there is probably no need to talk about anything more than C89, C99, POSIX.1-2001 (or later), xBSD, and SVr4. (In particular, I've eliminated most references to XPG and SVID, replacing them with references to SUS or SVr4.)

* eliminate discussion of errors that can occur on other systems. This information exists only patchily in the manual pages, is probably of limited use, is hard to maintain, and was in some cases simply wrong (and probably always was).

* Tried to ensure that those interfaces specified in C99 or POSIX.1-2001 are marked as such in their manual pages.

intro.1

intro.2

intro.3

intro.4
intro.5
intro.7
feature_test_macros.7

mtk
Added SEE ALSO referring to new standards.7.

Various pages
mtk
Changed instances of "HP UX" to "HP-UX".

Various pages
mtk
Changed instances of "DG-UX to "DG/UX"

Typographical or grammatical errors have been corrected in several places.

New pages

standards.7
mtk
Based on material taken from intro.2, but expanded to include discussion of many additional standards.

Changes to individual pages

bind.2
mtk
Minor wording change for ENOTSOCK error.

intro.2
mtk
Removed information on standards to new standards.7.

=====
Changes in man-pages-2.39
=====

Released: 2006-08-05

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>

Apologies if I missed anyone!

Global changes

Various pages

mtk

Updated CONFORMING TO and/or standards references
in various pages that were missed for 2.38.

Typographical or grammatical errors have been corrected in several
places.

Changes to individual pages

chdir.2

mtk

_XOPEN_SOURCE=500 also gets fchdir() prototype.

standards.7

mtk

Added a few more standards, and expand some explanations.

===== Changes in man-pages-2.40 =====

Released: 2006-09-04

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Samuel Thibault <samuel.thibault@ens-lyon.org>

Toralf Förster <toralf.foerster@gmx.de>

Apologies if I missed anyone!

Global changes

faccessat.2

fchmodat.2

fchowmat.2

fstatat.2

futimesat.2

linkat.2

mkdirat.2

mknodat.2

openat.2

readlinkat.2

renameat.2

symlinkat.2

mtk (after a note by Alain Portal)

Make naming of 'pathname' argument consistent; various minor rewordings.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

clone.2

mtk

Reinstate text on CLONE_DETACHED, and add a few words.

execve.2

mtk

Added list of process attributes that are not preserved on exec().

fork.2

mtk, after a suggestion by Christoph Hellwig

Greatly expanded, to describe all attributes that differ in parent and child.

linkat.2

mtk

Document AT_SYMLINK_FOLLOW (new in 2.6.18).

set_mempolicy.2

mtk / Andi Kleen

Memory policy is preserved across execve().

write.2

mtk / Alain Portal

SEE ALSO for writev should refer to Section 2, not 3.
(i.e., really make the change that was logged in 2.34)

getcwd.3

Samuel Thibault / mtk

Fix SYNOPSIS and CONFORMING TO text for getwd() and
get_current_dir().

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=381692>

proc.5

Chuck Ebbert

Document /proc/PID/auxv.

capabilities.7

Alain Portal

Restore text accidentally deleted in 2.39.

regex.7

mtk / Alain Portal

Change references to "1003.2" to "POSIX.2".

===== Changes in man-pages-2.41 =====

Released: 2006-10-12

Contributors

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

splice.2

tee.2

vmsplice.2

Jens Axboe / Michael Kerrisk

See also:

<http://lwn.net/Articles/118760/>

<http://lwn.net/Articles/178199/>

<http://lwn.net/Articles/179492/>

<http://kerneltrap.org/node/6505>

<http://lwn.net/Articles/179434/>

Changes to individual pages

ldd.1

Stefan Puiu

Note glibc version where "ldd -u" appeared.

execve.2

mtk

The PR_SET_NAME setting is not preserved across an execve().

fork.2

mtk

Mappings marked with madvise(MADV_DONTFORK) are not inherited by child.

getdtablesize.2

mtk

Noted that sysconf(_SC_OPEN_MAX) is preferred in portable applications.

getpagesize.2

mtk

Noted that sysconf(_SC_PAGE_SIZE) is preferred in portable

applications.

`_SC_PAGE_SIZE` is available on most systems.

madvise.2

mtk

Document `MADV_REMOVE`, new in 2.6.16.

Document `MADV_DONTFORK` / `MADV_DOFORK`, new in 2.6.16.

mount.2

mtk / Trond Myklebust

`MNT_FORCE` can cause data loss.

mmap.2

mtk

Added note on Linux's old (pre-2.6.12) buggy treatment of `length==0`.

Justin Pryzby / mtk

Added some `EINVAL` errors.

mremap.2

mtk

Remove superfluous `"#include <unistd.h>"` from SYNOPSIS.

msync.2

mtk

Added `EBUSY` error for case where `MS_INVALIDATE` is applied to a locked region.

posix_fadvise.2

Andrew Morton

Since 2.6.18, `POSIX_FADV_NOREUSE` is a no-op.

prctl.2

Marcel Holtmann / mtk

Since kernel 2.6.18, setting 2 for `PR_SET_DUMPABLE` is no longer possible.

Guillem Jover

Updated Linux versions where the options were introduced.

Added `PR_SET_TIMING`, `PR_GET_TIMING`, `PR_SET_NAME`, `PR_GET_NAME`, `PR_SET_UNALIGN`, `PR_GET_UNALIGN`, `PR_SET_FPEMU`, `PR_GET_FPEMU`, `PR_SET_FPEXC`, `PR_GET_FPEXC`.

Michael Kerrisk

Document `PR_GET_ENDIAN` and `PR_SET_ENDIAN`.

remap_file_pages.2

mtk

Add `"#define _GNU_SOURCE"` to SYNOPSIS.

sync_file_range.2

mtk

Noted that sync_file_range() appeared in kernel 2.6.17.

vfork.2

mtk

Noted interactions with fork handlers in multithreaded programs.

wait4.2

mtk

Added feature test macros to SYNOPSIS.

clog2.3

mtk / aeb / Kevin Ryde

Fix broken text in description.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=386214>

clog10.3

Kevin Ryde

Fix broken text in description.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=386214>

mq_receive.3

Britton Leo Kerin

Fix return type in SYNOPSIS; should be "ssize_t" not "mqd_t".

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=387551>

qsort.2

Hrvoje Niksic

Fix wording referring to the use of strcmp() in 'compar' function.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=391402>

sendfile.2

mtk

Added SEE ALSO referring to new splice.2 page.

termios.3

mtk

Documented IUTF8 (which was new in kernel 2.6.4).

tzset.3

mtk

Added some TZ examples.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=386087>

proc.5

mtk

Added delayacct_blkio_ticks (new in 2.6.18) to /proc/PID/statm.

ip.7

Stuart MacDonald / Andi Kleen

Fix discussion for TCP error queue /IP_RECVERR on TCP.

pthread.7

mtk

Noted effect of RLIMIT_STACK resource limit for NPTL.

socket.7

Senthil Kumar

Place socket options in alphabetical order.

==== Changes in man-pages-2.42 =====

Released: 2006-11-24

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

brk.2

Evan Teran / mtk

Add text describing behavior of the Linux brk() system call and point out that the glibc brk() wrapper provides different behavior.

mtk

Note that sbrk() is implemented as a library function in glibc that calls the brk() system call.

futex.2

mtk

FUTEX_FD is scheduled for removal in June 2007.

getaddrinfo.3

getnameinfo.3

Ulrich Drepper, with edits by mtk

Add text describing Internationalized Domain Name extensions.

open.2

mtk / Eduard Bloch

Fix description of O_LARGEFILE to mention required feature test macros.

ptrace.2

Chuck Ebbert

Since Linux 2.6.18, the PID of the new process is also available for PTRACE_EVENT_VFORKDONE.

syslog.3

Doug Goldstein

Fix header file required for vsyslog() in SYNOPSIS.

wcwidth.3

Petr Baudis

Fix CONFORMING TO.

core.5

mtk

Linux 2.4.21 added core_pattern (which was already in 2.6).
Noted a few more reasons why a core dump file might not be produced.

==== Changes in man-pages-2.43 =====

Released: 2006-11-29

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Andi Kleen <ak@suse.de>
David Brownell <david-b@pacbell.net>
Eduard Bloch <blade@debian.org>
Egmont Koblinger <egmont@uhulinux.hu>
Reuben Thomas <rrt@sc3d.org>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

ioperm.2

mtk

Clarify discussion of privilege requirements.
Added ENOMEM to ERRORS.

open.2

mtk / Eduard Bloch

Clarify description of O_LARGEFILE.

crypt.3

Egmont Koblinger

Make description of MD5 output string less ambiguous.

strerror.3

Reuben Thomas

Add C99 to CONFORMING TO; see
<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=400634>

rtc.4

David Brownell

Update the RTC man page to reflect the new RTC class framework:

- Generalize ... it's not just for PC/AT style RTCs, and there may be more than one RTC per system.
- Not all RTCs expose the same feature set as PC/AT ones; most of these ioctls will be rejected by some RTCs.
- Be explicit about when {A,P}IE_{ON,OFF} calls are needed.
- Describe the parameter to the get/set epoch request; correct the description of the get/set frequency parameter.
- Document RTC_WKALM_{RD,SET}, which don't need AIE_{ON,OFF} and which support longer alarm periods.
- Hey, not all system clock implementations count timer irq's any more now that the new RT-derived clock support is merging.

proc.5

mtk

s/fseek(3)/lseek(2)/ under /proc/PID/mem entry.

feature_test_macros.7

mtk / Eduard Bloch

The LFS spec is now at <http://opengroup.org/platform/lfs.html>

raw.7

udp.7

Andi Kleen

Describe the correct default for UDP/RAW path MTU discovery.

==== Changes in man-pages-2.44 =====

Released: 2007-04-04

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Andre Majorel <aym-naideb@teaser.fr>
 Benjamin Gilbert <bgilbert@cs.cmu.edu>
 Carlo Marcelo Arenas Belon <carenas@sajinet.com.pe>
 Chuck Ebbert <76306.1226@compuserve.com>
 Ivana Varekova <varekova@redhat.com>
 Jakub Jelinek <jakub@redhat.com>
 John Ward <jward@idealcorp.com>

Jorge Peixoto de Morais Neto <jorgepeixotomorais@gmail.com>
Julien Blache <jblache@debian.org>
Julien Cristau <jcristau@debian.org>
Justin Pryzby <justinpryzby@users.sourceforge.net>
Martín Ferrari <martin.ferrari@gmail.com>
Mike Frysinger <vapier@gentoo.org>
Nick Piggin <npiggin@suse.de>
Nick Pollitt <npollitt@mvista.com>
Nicolas François <nicolas.francois@centraliens.net>
Pádraig Brady <P@draigBrady.com>
Premysl Hruby <dfenze@gmail.com>
Reuben Thomas <rrt@sc3d.org>
Samuel Thibault <samuel.thibault@ens-lyon.org>
Serge E. Hallyn <serge@hallyn.com>
Thomas Huriaux <thomas.huriaux@gmail.com>
Timo Sirainen <tss@iki.fi>
Val Henson <val_henson@linux.intel.com>

Apologies if I missed anyone!

New pages

termio.7

mtk, after a bit of prodding by Reuben Thomas

A brief discussion of the old System V termio interface,
with pointers to pages that will contain the information
that the reader probably wants.

scripts/find_repeated_words.sh

mtk

Find consecutive duplicate words in a man page, some of
which may be grammar errors.

Global changes

Various pages

Justin Pryzby / mtk

Add "#define _ATFILE_SOURCE" to SYNOPSIS in following pages:

faccessat.2

fchmodat.2

fchownat.2

fstatat.2

futimesat.2

linkat.2

mkdirat.2

mknodat.2
openat.2
readlinkat.2
renameat.2
symlinkat.2
unlinkat.2
mkfifoat.3

Various pages

mtk

Various references to "getty" were changed to "mingetty", since that is the manual page more likely to be found on current systems.

Various pages

mtk, after a suggestion by Reuben Thomas <rrt@sc3d.org>

Updated various header pages to accurately reflect which functions are and are not part of C89. Also fixed/improved a few other CONFORMING TO entries.

Various pages

mtk

s/Unices/Unix systems/ on the 5 pages where it appears.

Various pages

mtk

Wrapped long source lines in the following files

getsockopt.2
mknodat.2
io_setup.2
select_tut.2
select.2
readlinkat.2
io_cancel.2
syslog.2
wcsncat.3
getipnodebyname.3
cmsg.3
wpcncpy.3
wcsrtombs.3
wcstok.3
fgetwc.3
wmemcmp.3
wcssp.3
div.3
modf.3
stdio_ext.3
ctermid.3
des_crypt.3

wcsncmp.3
wmemchr.3
wcsstr.3
wmemcpy.3
wprintf.3
wcsrtombs.3
termios.3
erf.3
ceil.3
lround.3
nextafter.3
wcsncpy.3
wmemset.3
getw.3
console_ioctl.4
sk98lin.4
environ.7
unix.7
time.7

Various pages

mtk

Added a SEE ALSO reference for feature_test_macros(7) to all pages where a feature test macro appears in the SYNOPSIS.

Various pages

mtk

Added SEE ALSO entry pointing to time.7

alarm.2
nanosleep.2
ualarm.3
usleep.3

Various pages

Justin Pryzby / mtk

Fixed consecutive duplicate word typos on a number of pages.

Typographical or grammatical errors have been corrected in several places. (Special thanks to Nicolas François!)

Changes to individual pages

access.2

mtk

Since 2.6.20, access() honors the MS_NOEXEC mount flag.

Jorge Peixoto de Morais Neto / mtk

Improve ENOENT description.

clone.2

mtk

Added some detail to the prototype.

Added some notes on IA-64's clone2().

epoll_ctl.2

mtk

Add text to note that EPOLLRDHUP appeared in kernel 2.6.17.

faccessat.2

Justin Pryzby

Various fixes as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=411177>

* s/effective/real/ in description text.

* added <fcntl.h> to synopsis.

* various other changes.

getrlimit.2

mtk / Fedora downstream patches; thanks to Ivana Varekova

Added a few words to note that RLIMIT_NPROC is really a limit on threads.

io_cancel.2

io_destroy.2

io_getevents.2

io_setup.2

io_submit.2

Fedora downstream patches; thanks to Ivana Varekova

s%/linux/aio.h%libaio.h% in SYNOPSIS.

Changed return type from "long" to "int".

mbind.2

Samuel Thibault / mtk

Fix EINVAL description.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=411777>

mincore.2

Nick Piggin

Kernel 2.6.21 fixes several earlier bugs in mincore().

Nick Pollitt

Remove words "of a file" -- mincore() is describing memory residence information, not properties of a file.

mtk

Rewrote various parts to make the page clearer.

mmap.2

mtk

Rewrote and reorganized various parts to be clearer.

Taken from Fedora downstream patches; thanks to Ivana Varekova

Removed text stating that mmap() never returns 0; that's not true.

mount.2

mtk / Val Henson

Document MS_RELATIME, new in Linux 2.6.20.

open.2

Andre Majorel / mtk

On Linux, the error returned when opening a large file on a 32-bit system is actually EFBIG, not EOVERFLOW.

posix_fadvise.2

Pádraig Brady

Fix RETURN VALUE description: returns error number of failure.

rename.2

mtk / Timo Sirainen

Various improvements to DESCRIPTION.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=416012>

semop.2

mtk

If sops contains multiple operations, then these are performed in array order. All Unix systems that I know of do this, and some Linux applications depend on this behavior. SUSv3 made no explicit statement here, but SUSv4 will explicitly require this behavior.

Small rewording of explanation of "atomically".

signal.2

Nicolas François

Fix incorrect argument name in DESCRIPTION.

mtk

Small wording improvement.

socket.2

Nicolas François

Add reference to ipv6.7 page.

socketcall.2

Nicolas François

Fix .TH line.

splice.2

Benjamin Gilbert

Fix inconsistent argument names in SYNOPSIS and DESCRIPTION.

statvfs.2

mtk

Small wording clarification.

symlink.2

mtk / Nicolas François

Removed cryptic text under CONFORMING to referring to "open(2) and NFS". There is no relevant text in open.2 as far as I (mtk) can see.

time.2

mtk / Reuben Thomas

Remove sentence "gettimeofday() obsoleting time() on 4.3BSD". This information is old, and probably no longer relevant. See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=403888>

write.2

mtk, after an idea from a downstream Fedora patch.

Clarified discussion of /count == 0/ case.

ptrace.2

Chuck Ebbert

When the parent receives an event with PTRACE_EVENT_* set, the child is not in the normal signal delivery path. This means the parent cannot do ptrace(PTRACE_CONT) with a signal or ptrace(PTRACE_KILL). kill() with a SIGKILL signal can be used instead to kill the child process after receiving one of these messages.

sched_setaffinity.2

mtk

Fix glibc version number in description of 'cpusetsize' argument.

vfork.2

mtk

Stripped some excess/outdated text from the BUGS section.

basename.3

mtk / Jorge Peixoto de Morais Neto

Add text to clarify that the pointer returned by these functions may be into some part of 'path'.

dlopen.3

Taken from Fedora downstream patches; thanks to Ivana Varekova + Carlo Marcelo Arenas Belon

Add "#include <stdlib.h>" to example program.

fclose.3

mtk

Complete rewrite. The existing page was hard to read, and the RETURN VALUE description seems to be wrong.

getopt.3

mtk

Added getopt() example program.

mtk

Add a few words to clarify the operation of the GNU-specific double-colon feature, which allows options to have optional arguments.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=352139>

glob.3

Nicolas François

Fix PROTOTYPE.

inet_network.3

mtk, after an idea from a downstream Fedora patch.

Clarified description of inet_network().

log.3

Nicolas François

Fix .TH line.

log10.3

Nicolas François

Fix .TH line.

malloc.3

Nicolas François

Small rewording to mention calloc().

posix_openpt.3

Martín Ferrari

Fix return type in SYNOPSIS; as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=400971>

Needs _XOPEN_SOURCE == 600; as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=400975>

Julien BLACHE

s/ptsname/posix_openpt/ in RETURN VALUE

re_comp.3

Taken from Fedora downstream patches; thanks to Ivana Varekova

Add "#define _REGEX_RE_COMP" to SYNOPSIS.

regex.3

Nicolas François

Fix .TH line.

termios.3

mtk

Added .SS headers to give some structure to this page; and a small amount of reordering.

mtk

Added a section on canonical and non-canonical mode.

mtk

Enhanced the discussion of "raw" mode for `cfmakeraw()`.

mtk

Document CMSPAR.

mtk

Make description of PARODD a little clearer.

Reuben Thomas

Add SEE ALSO link to `tty_ioctl.4`

mtk

Add SEE ALSO link to `console_ioctl.4`

ualarm.3

mtk

Removed BSD prototype from synopsis.

Various rewordings.

usleep.3

mtk

Removed BSD prototype from synopsis.

Various rewordings.

termcap.5

Taken from Fedora downstream patches; thanks to Ivana Varekova
s/curses/ncurses/ under SEE ALSO

bootparam.7

Taken from Fedora downstream patches; thanks to Ivana Varekova
Documented "mem=nopentium".

feature_test_macros.7

mtk

The default treatment of `_POSIX_C_SOURCE` changed in glibc 2.4.

mtk, after a suggestion by Justin Pryzby

Added some text warning that the "___" macros that
<features.h> defines internally should never be
directly defined by programs.

mtk, based on notes by Jakub Jelinek

Document _FORTIFY_SOURCE

(See <http://gcc.gnu.org/ml/gcc-patches/2004-09/msg02055.html>)

mtk

Document _REENTRANT and _THREAD_SAFE.

mdoc.7

mtk / Nicolas François

Remove CONFIGURATION section, since this does not seem to be true for Linux.

svipc.7

Nicolas François

Fix data types in associated data structures;
remove nonexistent semzcnt and semncnt fields.

time.7

mtk

Since kernel 2.6.20, the software clock can also be 300 HZ.

===== Changes in man-pages-2.45 =====

Released: 2007-04-05

Global changes

This release consists mainly of formatting fixes (to a large number of pages) to achieve greater consistency across pages. With the exception of the few individual changes noted below, no changes were made to content.

Changes to individual pages

io_destroy.2

io_getevents.2

io_setup.2

io_cancel.2

io_submit.2

mtk

Clarified RETURN VALUE text

bindresvport.3

mtk

Rewrote prototype using modern C syntax.

===== Changes in man-pages-2.46 =====

Released: 2007-04-06

Global changes

This release consists mainly of formatting fixes (to a large number of pages) to achieve greater consistency across pages:

- * Most instances of two or more consecutive blank lines in man page output were shrunk to a single line.
- * A number of example programs were reformatted to more closely match K&R style.
- * In various places (mainly code examples), the use of tabs was replaced by spaces

With the exception of the few individual changes noted below, no changes were made to content.

Changes to individual pages

bdflush.2

mtk

Add <sys/kdaemon.h> header file to SYNOPSIS.

sched_rr_get_interval.2

mtk

Moved timespec definition from SYNOPSIS into description.

select_tut.2

mtk

Make SYNOPSIS match select.2.

===== Changes in man-pages-2.47 =====

Released: 2007-05-04

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Andi Kleen <andi@firstfloor.org>

John Heffner <jheffner@psc.edu>

Apologies if I missed anyone!

Global changes

This release consists mainly of changes to source file layout (wrapped long lines; stripped trailing white space; started new sentences on new lines).

There is very little change to output formatting or content (see the notes below).

Changes to individual pages

sched_rr_get_interval.2

mtk

Remove crufty statement that this system call is not implemented.

The nice interval can be used to control the size of the round-robin quantum.

Corrected .TH line.

ip.7

John Heffner / mtk

Document IP_PMTUDISC_PROBE, which will be in 2.6.22.

===== Changes in man-pages-2.48 =====

Released: 2007-05-04

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Colin Watson <cjwatson@debian.org>

Justin Pryzby <justinpryzby@users.sourceforge.net>

Apologies if I missed anyone!

Global changes

This release consists mainly of changes to source file layout
(wrapped long lines; stripped trailing white space; started new
sentences on new lines).

There is very little change to output formatting or content (see the
notes below).

Various pages

mtk

In various places where it occurred,
s/nonnegative/non-negative/

Various pages

mtk

s/wide character/wide-character/ when used attributively.

Changes to individual pages

man.7

Justin Pryzby / Colin Watson / mtk

.SH doesn't require quotes.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=411303>

===== Changes in man-pages-2.49 =====

Released: 2007-05-20

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

Akihiro MOTOKI <amotoki@dd.iij4u.or.jp>

Bruno Haible <bruno@clisp.org>

Justin Pryzby <justinpryzby@users.sourceforge.net>

Apologies if I missed anyone!

New pages

bsd_signal.3

mtk

Documentation of bsd_signal().

eidaccess.3

mtk

Manual page for eidaccess() and eaccess().

getsubopt.3

mtk / Justin Pryzby

Documentation of getsubopt().

sysv_signal.3

mtk

Documentation of sysv_signal().

New links

epoll_pwait.2

mtk

New link to epoll_wait.2.

eaccess.3

mtk

New link to new eidaccess.3,

sem_timedwait.3

mtk

New link to sem_wait.3.

sem_trywait.3

mtk

New link to sem_wait.3.

Global changes

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

access.3

mtk

Added SEE ALSO ref to new `eidaccess.3` page.

`epoll_wait.2`

mtk

Added description of `epoll_pwait()`, new in kernel 2.6.19.

`execve.2`

mtk

Add text noting that Linux allows 'argv' and 'envp' to be NULL, but warning that this is non-standard and non-portable, and should be avoided in portable programs.

Bug filed (http://bugzilla.kernel.org/show_bug.cgi?id=8408) to get this changed, but maybe that won't be done because it is an ABI change.

mtk

Added an example program.

mtk

Expanded the discussion of interpreter scripts and the 'optional-arg' argument of an interpreter script.

For further info, see

<http://homepages.cwi.nl/~aeb/std/hashexclam-1.html>

<http://www.in-ulm.de/~mascheck/various/shebang/>

mtk

Added text noting that `FD_CLOEXEC` causes record locks to be released.

mtk

Mention effect of `MS_NOSUID` mount(2) flag for set-user-ID programs.

mtk

Expanded description of handling of file descriptors during `execve()`, adding text to note that descriptors 0, 1, and 2 may be treated specially.

`faccessat.3`

mtk

Added SEE ALSO ref to new `eidaccess.3` page.

`mmap.2`

mtk

Place `MAP_*` flags list in alphabetical order.

`readv.2`

mtk

A fairly substantial rewrite, which among other things fixes the problem reported by Kyle Sluder in

http://bugzilla.kernel.org/show_bug.cgi?id=8399

And added some example code.

sigaction.2

mtk

Added text referring to the discussion of async-signal-safe functions in signal(7).

A few other minor formatting and wording changes.

signal.2

mtk

Moved the discussion of async-signal-safe functions to signal(7).

Added text referring to the discussion of async-signal-safe functions in signal(7).

Added SEE ALSO entries referring to new `bsd_signal.3` and `sysv_signal.3` pages.

copysign.3

Bruno Haible

Clarify discussion of negative zero.

getopt.3

mtk

Add SEE ALSO ref to new `getsubopt.3`.

iconv_open.3

Bruno Haible

Describe the `glibc/libiconv //TRANSLIT` and `//IGNORE` extensions for 'tocode'.

iswblank.3

Bruno Haible

Update CONFORMING TO; `iswblank()` is in POSIX.1-2001.

inotify.7

mtk

Definitions for `IN_DONT_FOLLOW`, `IN_MASK_ADD`, and `IN_ONLYDIR` were added to `glibc` in version 2.5.

signal.7

mtk

Incorporated (and slightly modified) the text on async-signal-safe functions that was formerly in signal(2).

Added SEE ALSO entries referring to new `bsd_signal.3` and `sysv_signal.3` pages.

==== Changes in man-pages-2.50 =====

Released: 2007-05-21

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Andreas Halter <halter@google.com>

Laird Shaw <netocrat@dodo.com.au>

Mike Frysinger <vapier@gentoo.org>

Apologies if I missed anyone!

Removed pages (!)

Most Section 1 man pages are removed

mtk (with help from Mike Frysinger, Laird Shaw, Andreas Halter)

Once upon time Andries added a number of Section 1 manual pages to man-pages. However, since that time, those pages have not seen much maintenance, and are not in fact distributed in most distributions. Instead most distributions supply the coreutils versions of these pages, which are currently maintained. In addition, man-pages provides the 1p pages, which document the portable subset of functionality of these commands. Since the man1 pages are mostly unneeded, and out of date, I'm removing them. The following pages disappear:

chgrp.1
chmod.1
chown.1
cp.1
dd.1
df.1
diff.1
dir.1
dircolors.1
du.1
install.1
ln.1
ls.1
mkdir.1
mkfifo.1
mknod.1
mv.1
rm.1
rmdir.1
touch.1

vdir.1

The following Section 1 pages will be kept:

intro.1

ldd.1

time.1

==== Changes in man-pages-2.51 =====

Released: 2007-05-28

Global changes

Various pages

mtk

(Hopefully) all cross references outside a page now include a section number. This should permit better resulting output from a man2html-type conversion.

Various pages

mtk

Convert function formatting of the form "\fBname\fp()" to ".BR name ()".

Changes to individual pages

futimesat.2

mtk

s/futimes/futimesat/ in .SH NAME line.

msgop.2

mtk

Put "msgrcv" and "msgsnd" in .SH NAME line.

mount.2

mtk

Add "umount2" to .SH NAME line.

wait.2

mtk

Add "waitid" to .SH NAME line.

getopt.3

mtk

Add "getopt_long" and "getopt_long_only" in .SH NAME line.

sem_wait.3

mtk

Add "sem_timedwait" and "sem_trywait" to .SH NAME line.

stdarg.3

mtk

Add "va_start", "va_arg", "va_end", "va_copy" to .SH NAME line.

===== Changes in man-pages-2.52 =====

Released: 2007-05-29

"A foolish consistency is the hobgoblin of little minds, adored by
little statesmen and philosophers and divines"

Ralph Waldo Emerson (1803-1882)

"But damn it, these man pages are a mess!"

Global changes

Most of the changes below are about bringing greater consistency
to manual pages, including reducing the wide range of .SH
Section headings.

Typographical or grammatical errors have been corrected in several
places.

Various pages

mtk

Make 'manual' component of .TH line into the string

"Linux Programmer's Manual".

Reason: consistency.

Various pages

mtk

Changed date in .TH line into form YYYY-DD-MM.

Reason: consistency.

Various pages

mtk

Some .SH header lines were made into .SS lines. (One of the aims

here is to reduce the number of non-standard .SH lines.)

Various pages

mtk

Change title .SH sections named "NOTE" to "NOTES", in some cases also changing the location of the section within the page.

Reason: consistency.

Various pages

mtk

Commented out .SH AUTHOR sections; the right place for documentation authorship sections is usually comments at the top of the page source.

Various pages

mtk

Changed .SH HISTORY to .SH VERSIONS.

Reason: in many cases, HISTORY was being used to describe Linux/glibc version information, as was already done for VERSIONS sections in other pages.

Various pages

mtk

Removed HISTORY section, or moved it as a subsection or paragraphs under another section e.g., NOTES.

Reason: there are too many arbitrary section (.SH) names, and a HISTORY section never was consistently used across Linux manual pages.

Various pages

mtk

Moved SEE ALSO section to be last section on the page

Reason: consistency -- and this is where SEE ALSO should be!

Various pages

mtk

Relocated GLIBC NOTES as subsection under NOTES

Reason: reduce number of arbitrary section (.SH) names.

Various pages

mtk

Relocated LINUX NOTES as subsection under NOTES

Reason: reduce number of arbitrary section (.SH) names.

Various pages

mtk

Renamed some "AVAILABILITY" sections to "VERSIONS".

Reason: consistency.

Various pages

mtk

Renamed some "DIAGNOSTICS" sections to "RETURN VALUE".

Reason: consistency.

getopt.3

tzselect.8

mtk

s/\.SH ENVIRONMENT VARIABLES/.SH ENVIRONMENT/

Reason: consistency.

intro.2

select.2

sysctl.2

bsearch.3

dlopen.3

envz_add.3

fmtmsg.3

getgrent_r.3

getgrouplist.3

getpwent_r.3

gettutent.3

hsearch.3

rtime.3

strptime.3

tsearch.3

vcs.4

wordexp.3

mtk

s/return 0/exit(EXIT_FAILURE)/ in main() of function example program.

Reason: consistency.

mprotect.2

select_tut.2

dlopen.3

getgrent_r.3

getopt.3

getpwent_r.3

hsearch.3

select_tut.2

tsearch.3

mtk

Use symbolic constants (EXIT_SUCCESS, EXIT_FAILURE) in calls to exit().

Reason: consistency.

access.2
chown.2
lseek.2
open.2
read.2
utmp.5

mtk

Renamed RESTRICTIONS section to NOTES, or moved text in a RESTRICTIONS section under existing NOTES section.

Reason: consistency, and reduce number of arbitrary section (.SH) names.

Changes to individual pages

capget.2

mtk

s/\.SH FURTHER INFORMATION/\.SH NOTES/

dup.2

mtk

s/\.SH WARNING/\.SH NOTES/

kill.2

mtk

Renamed LINUX HISTORY section to LINUX NOTES, and relocated within page.

select_tut.2

mtk

Relocated example program and made its .SH title "EXAMPLE".

sigaltstack.2

mtk

Move code example into its own EXAMPLE section.

sigreturn.2

mtk

s/\.SH WARNING/\.SH NOTES/

setuid.2

mtk

s/\.SH "LINUX-SPECIFIC REMARKS"/\.SH LINUX NOTES/

shmget.2

mtk

Remove section about effect of fork()/exec()/exit(); shmop.2

contains the same text, and it only needs to be said once.

shmop.2

mtk

Minor rewording under DESCRIPTION.

daemon.3

mtk

Minor wording and formatting changes.

encrypt.3

mtk

Removed statement that glibc unconditionally exposes declarations of encrypt() and setkey(), since portable applications must use <unistd.h> and define _XOPEN_SOURCE to obtain the declarations of setkey() and encrypt(). Adjusted example program accordingly.

mkstemp.3

mtk

Slight rewording.

LDP.7

mtk

Minor wording and formatting changes.

man.7

mtk

Substantial rewrite, revising and extending the discussion about desired conventions for writing pages.

There will be further updates to this page in the next few man-pages releases.

==== Changes in man-pages-2.53 =====

Released: 2007-05-30

"A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines"

Ralph Waldo Emerson (1803-1882)

"But damn it, these man pages are a mess!"

Global changes

Many many pages

mtk

Reordered sections to be more consistent, in some cases renaming sections or shifting paragraphs between sections.

man7/*

mtk

In various pages in this section, .SH headings were converted to .SS.

===== Changes in man-pages-2.54 =====

Released: 2007-06-07

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Emmanuel Mogenet <emogenet@google.com>

Michael Berg <michaeljberg@gmail.com>

Apologies if I missed anyone!

Global changes

Various pages

mtk

Where there is an instruction in the SYNOPSIS about linking or compiling with a certain option, the option is now marked up in italics (e.g., "\fI-lm\fP").

Various pages

mtk

Added page numbers to page cross references.

A few pages

mtk

s/manpage/man page/, for consistency.

Typographical or grammatical errors have been corrected in several places.

New pages

man-pages.7

mtk

A description of the conventions that should be followed when writing pages for the man-pages package.

Removed pages

man1/README

mtk

Already deleted most of the man1 pages previously, so this doesn't need to stay.

LDP.7

mtk

Removed this page since it is out of date, and the proper place to go for up-to-date information is <http://www.tldp.org/>

ksoftirq.9

mtk

Reason: this was the only Section 9 page, and it is old (Linux 2.4). The man9 section never took off as an idea, and I see little point in keeping a Section 9 with just a single old page.

Changes to individual pages

HOWTOHELP

mtk

Moved some material out of here into new man-pages.7.

alloc_hugepages.2

mtk

Minor rewrites, eliminating some duplication, and removing some outdated text.

epoll_pwait.2

Michael Berg

Fix broken link path;

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=425570>

fcntl.2

mtk

Remove misleading text about setting O_ASYNC when calling open(); one must use fcntl() F_SETFL for this task.

fdatasync.2

mtk

Converted outdated BUGS note about fdatasync() being equivalent to fsync() on Linux 2.2 into a NOTES note about this historical behavior.

futex.2

mtk

Small rewording to fix "fails with the error EWOULDBLOCK" rather than "returns EWOULDBLOCK".

See Red Hat bug 172828.

mprotect.2

mtk, after an observation by Emmanuel Mogenet

A much improved example program.

mtk

Significant rewrites and additions to description.

mremap.2

mtk

Remove text about the nonexistent BSD mremap() -- too much information, in my opinion.

sched_yield.2

mtk

Added ERRORS section.

set_mempolicy.2

mtk

Moved text for "Versions and Library Support".

set_tid_address.2

mtk

Small rewording in RETURN VALUE section.

sigaction.2

mtk

Add EXAMPLE section with a pointer to example in mprotect.2.

sync_file_range.2

mtk

Fix return type in SYNOPSIS. Add RETURN VALUE section.

atexit.3

mtk

Small rearrangement of text under NOTES.

bindresvport.3

mtk

Rewrite and substantial additional text.

exec.3

mtk

Minor clarifications for text on `execlp()` and `execvp()`. Removed FILES section, since it provides no useful additional info.

fenv.3

mtk

Moved link instructions from NOTES to SYNOPSIS.
Added `feenableexcept`, `fedisableexcept`, `fegetexcept` to .SH NAME list.

fputwc.3

mtk

Added 'putwc' to .SH NAME list.

gethostbyname.3

mtk

`s/int/socklen_t/` for type of `gethostbyaddr()` 'len' argument, and add a few more words in NOTES about the type used here.

login.3

mtk

Removed remark from NOTES about linking with `-lutil`; add text on that point to SYNOPSIS.

openpty.3

mtk

Removed redundant remark from NOTES about linking with `-lutil` since there is text on that point under SYNOPSIS.

sysconf.3

mtk

Added SEE ALSO referring to `getconf(1)`.

unlocked_stdio.3

mtk

Revised .SH NAME section.

ascii.7

mtk

Minor rearrangement of order of text.

capabilities.7

mtk

s/exec()/execve(2)/ in various places.

complex.7

mtk

Changed "atan(1)" to "atan(1.0)" to prevent some versions of man2html(1) from mistaking that string as a page cross reference.

rtnetlink.7

mtk

Small restructuring to avoid 'cannot adjust line' from man(1).

ldconfig.8

mtk

Removed now very out-of-date sentence about need to link shared libraries with -lc.

man.7

mtk

Various text was moved out of this page into the new man-pages.7.

mdoc.7

mtk

Added SEE ALSO referring to new man-pages.7.

mdoc.samples.7

mtk

A few changes, hopefully done right, to eliminate some errors to stderr when rendering with man(1).

rtnetlink.7

mtk

Shorten a line in table so it fits in 80 columns.
Minor rewording under BUGS.

tzselect.8

mtk

Moved EXIT STATUS section.

==== Changes in man-pages-2.55 =====

Released: 2007-06-10

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alexander Taboriskiy <alectab@math-solution.com>

Joey Hess <joeyh@debian.org>

John Reiser <jreiser@bitwagon.com>

Julien Cristau <jcristau@debian.org>

Justin Pryzby <justinpryzby@users.sourceforge.net>

Martin (Joey) Schulze <joe@infodrom.org>

Mike Frysinger <vapier@gentoo.org>

Serge van den Boom <svdb@stack.nl>

Ulrich Drepper <drepper@redhat.com>

Xose Vazquez Perez <xose.vazquez@gmail.com>

Apologies if I missed anyone!

Global changes

clone.2

getdents.2

gettid.2

ioprio_set.2

llseek.2

mmap2.2

modify_ldt.2

mq_getsetattr.2

pivot_root.2

quotactl.2

readdir.2

sysctl.2

syslog.2

tkill.2

mtk, after a note by Mike Frysinger

Updated to reflect the fact that the `_syscallN()` macros have gone away,

Several pages

mtk

Change reference to `path_resolution.2` to `path_resolution.7`.

Typographical or grammatical errors have been corrected in several places.

Moved pages

path_resolution.2 has been moved to section 7, thus path_resolution.7

mtk

Reason: this is an overview page, not one describing as a specific system call.

Changes to individual pages

MAINTAINING

mtk, after a note from Xose Vazquez Perez

Added pointer to Red Hat man-pages bugzilla.

mtk

Added a release philosophy note on separating out big formatting changes into their own release that contains minimal content changes.

accept.2

mtk

Add new EXAMPLE section with pointer to example in bind.2.

arch_prctl.2

mtk

Added RETURN VALUE section.

bind.2

mtk

Expand example program, and move it to new EXAMPLE section. Added text pointing to example in getaddrinfo.3.

cacheflush.2

mtk

Convert NOTES section to CONFORMING TO and note that this call is Linux-specific. Other minor rewordings.

connect.2

mtk

Added new EXAMPLE section pointing to example in getaddrinfo.3.

create_module.2

mtk

Add ENOSYS error.

fcntl.2

flock.2

mtk

Small rewrite of SEE ALSO text pointing to Documentation/* in kernel source.

get_kernel_syms.2

mtk

Added ERRORS heading

Add ENOSYS error.

getdtablesize.2

mtk

Added an ERRORS section.

getsid.2

mtk

Added a RETURN VALUE section.

getpid.2

mtk

Added an ERRORS section (stating that the calls are always successful).

ioctl_list.2

mtk

Add SEE ALSO reference to ioctl.2.

listen.2

mtk

Add new EXAMPLE section with pointer to example in bind.2.

query_module.2

Martin (Joey) Schulze

Add ENOSYS error.

recv.2

mtk

Added new EXAMPLE section pointing to example in getaddrinfo.3.

sched_get_priority_max.2

sched_rr_get_interval.2

sched_setscheduler.2

sched_yield.2

mtk

Modified .TH line

send.2

mtk

Added new EXAMPLE section pointing to example in getaddrinfo.3.

set_tid_address.2

mtk

Added an ERRORS section (stating that the call is always successful).

signal.2

mtk, after a note from Alexander Taboriskiy

Strengthen warning against the use of signal().

Added siginterrupt(3) to SEE ALSO list.

mtk

Rewrote various parts; added an ERRORS section.

socket.2

mtk

Added new EXAMPLE section pointing to example in getaddrinfo.3.

stat.2

mtk

Added EXAMPLE program.

syscall.2

mtk

Converted to -man format; some rewrites; added an EXAMPLE.

sysctl.2

mtk

Improved the example program.

getnameinfo.3

mtk

Add text pointing to example in getaddrinfo.3.

getaddrinfo.3

mtk

Add example programs.

Add getnameinfo() to SEE ALSO list.

memmove.3

mtk / Serge van den Boom

Clarify discussion of what happens if 'src' and 'dest' overlap.

regex.3

Justin Pryzby

Add grep(1) to SEE ALSO list.

sigpause.3

mtk after a note from Ulrich Drepper

Clarify discussion of feature test macros that are needed to

expose System V and BSD versions of this function in glibc.

undocumented.3

mtk

Removed some functions that have been documented.

wprintf.2

Martin (Joey) Schulze

Remove wscanf.3 from SEE ALSO list, since that page does not exist.

utmp.5

Joey Hess

Removed outdated note on xdm.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=418009>

Martin (Joey) Schulze

Removed outdated note about Debian and libc5.

bootparam.7

Martin (Joey) Schulze

Fix order of commands listed under 'init='.

hier.7

Joey Hess

Add /media, remove /dos.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=418234>

inotify.7

mtk

Added text describing what happens when the buffer given to read(2) is too small to return information about the next event, and noting the behavior change in 2.6.21.

man-pages.7

mtk

Added text to note that ERRORS list should be in alphabetical order.

mdoc.7

mdoc.samples.7

mtk

Added SEE ALSO reference to groff_mdoc(7).

unix.7

mtk

Added EXAMPLE section with pointer to bind.2 EXAMPLE.

ld.so.8

mtk

Simplify text describing --inhibit-rpath.

mtk, after a note by John Reiser
Describe use of \$ORIGIN in rpath.

===== Changes in man-pages-2.56 =====

Released: 2007-06-11

Global changes

Many pages

mtk

Removed version numbers in .TH lines.

Reason: these were only arbitrarily updated, and so impart no useful information. Version information goes into a VERSIONS section nowadays, and the date in the .TH line should be updated to reflect the date of the last (significant) change to the page.

Typographical or grammatical errors have been corrected in several places.

===== Changes in man-pages-2.57 =====

Released: 2007-06-17

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Samuel Thibault <samuel.thibault@ens-lyon.org>

Apologies if I missed anyone!

Global changes

Many pages

mtk

Fix section numbers in page cross references.

Changes to individual pages

access.2

mtk

Minor wording fixes.
Small clarification of description of 'mode'.

bind.2

mtk

Small reworking of EXAMPLE program.

exit_group.2

mtk

Minor wording fixes.

exit.3

mtk

Added more detail on exit handlers.
Minor wording fixes.

ioctl.2

mtk

Remove SEE ALSO reference to nonexistent mt.4.

modify_ldt.2

Samuel Thibault / mtk

In Linux 2.6, the 'modify_ldt_ldt_s' structure was renamed
'user_desc'.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=378668>

mtk

Include definition of 'user_desc' structure.
Minor rewordings.

mprotect.2

mtk

Small reworking of EXAMPLE program.

sigaction.2

mtk

Removed reference to nonexistent sigsend(2).

a64l.3

mtk

Remove SEE ALSO reference to nonexistent itoa.3.

dysize.3

mtk

Removed SEE ALSO reference to nonexistent time.3.

encrypt.3

mtk

Removed SEE ALSO reference to nonexistent fcrypt.3.

fmemopen.3

mtk

Small reworking of EXAMPLE program.

fpurge.3

mtk

Remove SEE ALSO reference to nonexistent fclean.3.

getutent.3

mtk

s/ttyname(0)/ttyname(STDIN_FILENO)/ in program example.

vcs.4

mtk

s/exit(1)/exit(EXIT_FAILURE)/

environ.7

mtk

Correct some section numbers in page cross references.

man-pages.7

mtk

Modify requirements for example programs a little.

uri.7

mtk

Wrapped long source lines.

==== Changes in man-pages-2.58 =====

Released: 2007-06-24

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Marc Boyer <marc.boyer@enseeiht.fr>

Mike Frysinger <vapier@gentoo.org>

Apologies if I missed anyone!

Global changes

Various pages, as detailed below

mtk

Added or updated VERSIONS sections.

killpg.2

setuid.2

faccessat.2

fork.2

setfsuid.2

kill.2

getsid.2

wait.2

execve.2

getpid.2

setgid.2

seteuid.2

setresuid.2

setfsgid.2

access.2

initgroups.3

euidaccess.3

tcgetpgrp.3

path_resolution.7

capabilities.7

unix.7

mtk

Add SEE ALSO link to new credentials.7.

New pages

credentials.7

mtk

An overview of Linux process identifiers (PIDs, PPIDs, PGIDS, SIDs, UIDs, GIDs).

Changes to individual pages

bind.2

mtk

Added some comments to example program.

getxattr.2

mtk

VERSIONS: In kernel since 2.4; glibc support since 2.3.

listen.2

mtk

Updated discussion of somaxconn limit.

listxattr.2

mtk

VERSIONS: In kernel since 2.4; glibc support since 2.3.

posix_fadvise.2

mtk

VERSIONS: Glibc support has been provided since version 2.2.

readahead.2

mtk

Added VERSIONS section.

remap_file_pages.2

mtk

Updated VERSIONS section with text on glibc support.

removexattr.2

mtk

VERSIONS: In kernel since 2.4; glibc support since 2.3.

semop.2

mtk

Added VERSIONS section with info on semtimedop().

setxattr.2

mtk

VERSIONS: In kernel since 2.4; glibc support since 2.3.

dl_iterate_phdr.3

mtk

VERSIONS: Supported since glibc 2.2.4.

getloadavg.3

mtk

Added VERSIONS section.

posix_openpt.3

mtk

VERSIONS: Supported since glibc 2.2.1.

printf.3

mtk after a suggestion by Mike Frysinger

Add text to the introductory part of DESCRIPTION, about the 'size' argument of snprintf() and vsnprintf().

shm_open.3

mtk

Added VERSIONS section; rewrote info about linking with -lrt.

strcat.3

Marc Boyer

Improve the discussion of strcat().

strcpy.3

Marc Boyer

Improve the discussion of strcpy().

proc.5

mtk

Added discussion of /proc/sys/net/core/somaxconn.

==== Changes in man-pages-2.59 =====

Released: 2007-06-25

Global changes

Manual pages are now standardized on American spelling. See http://en.wikipedia.org/wiki/American_and_British_English_spelling_differences for more information on the differences. Formerly, different pages (and sometimes even a single page!) employed American and British spelling conventions; best to standardize on one spelling, and American English is the standard in Computer Science.

Changes to individual pages

man-pages.7

mtk

Note that man-pages has now standardized on American spelling conventions.

execve.2

getxattr.2

listxattr.2
removexattr.2
setxattr.2
signal.2
syscall.2
aio_cancel.3
bindresvport.3
stdarg.3
charmap.5
bootparam.7
ipv6.7
man.7
path_resolution.7
uri.7
nscd.8

mtk

Corrected minor spelling/wording mistakes (i.e., changes independent of fixes for American spelling).

===== Changes in man-pages-2.60 =====

Released: 2007-06-25

Global changes

Various pages

mtk

Wrapped lines in some files.

Various pages

mtk

Change "e.g. " to "e.g., ", or in some cases, "for example, ".

Various pages

mtk

Change "i.e. " to i.e., ", or in some cases, "that is, ".

Various pages

mtk

Removed AUTHORS section.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

vfork.2

mtk

s/w.r.t./with respect to/

man-pages.7

mtk

Strengthened warning against use of AUTHORS section.

===== Changes in man-pages-2.61 =====

Released: 2007-07-01

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>
Benno Schulenberg <bensberg@justemail.net>
Florian Ernst <florian_ernst@gmx.net>
Ivana Varekova <varekova@redhat.com>
Jeff Schroeder <jeffschroeder@computer.org>
Joey (Martin) Schulze <joe@infodrom.org>
Justin Pryzby <justinpryzby@users.sourceforge.net>
Loïc Minier <lolo@dooz.org>
Michael Gehring <mg@ebfe.org>
Serge van den Boom <svdb@stack.nl>
Stefan Puiu <stefanpuiu@yahoo.com>
Stepan Kasal <kasal@ucw.cz>

Apologies if I missed anyone!

Global changes

Various pages

mtk

substitute `\\0' by '\\0'.

Various pages

mtk

s^// when the thing being quoted is a character.

accept.2

bind.2

connect.2

getsockopt.2

listen.2

socket.2

socketpair.2

mtk after a note by Martin (Joey) Schulze

Add NOTES paragraph noting that <sys/types.h> isn't required by POSIX.1-2001 or Linux, but was required on some implementations.

accept.2

getsockname.2

recv.2

vm86.2

send.2

getgrouplist.3

memmem.3

nsswitch.conf.5

putenv.3

wprintf.3

mtk

Replace form `...' with \fI...\fP where the enclosed string is a pathname, type name, or argument name.

A few files

mtk

s/process' /process's/

gets.3

qsort.3

getaddrinfo.3

rpc.3

ungetwc.3

wcsnrtombs.3

capabilities.7

mtk

Add section number to page cross references.

time.1

bind.2

pivot_root.2

sysctl.2

mtk

Reordered .SH sections.

full.4
mouse.4
random.4
sd.4
mtk

Made CONFIG/CONFIGURING heading ==> CONFIGURATION

time.1
console_codes.4
random.4
sk98lin.4
charmap.5
ftusers.5
bootparam.7
charsets.7
glob.7
mq_overview.7
unicode.7
uri.7
utf-8.7
mtk

Reformatted headings

New pages

backtrace.3

mtk, with input from Justin Pryzby and Stefan Puiu
Documents backtrace(), backtrace_symbols(), and
backtrace_symbols_fd().

New links

backtrace_symbols.3

backtrace_symbols_fd.3

mtk

Links to backtrace.3.

__clone.2

Stepan Kasal

Link to clone.2.

Changes to individual pages

Makefile

Serge van den Boom

Fix setting of 'prefix' macro.

eval.1p

Benno Schulenberg

Fix bad text (concatenated line).

chdir.2

mtk

Fixed description of EACCES error.

Added sentence defining "current working directory".

Other minor wording changes.

cfree.3

mtk

Added SEE ALSO section.

clone.2

mtk

s/clone2/ __clone2/.

fdatasync.2

mtk

Minor wording changes.

fork.2

Alain Portal

Fix small wording error.

gethostid.2

Stefan Puiu / mtk

Add NOTES on what happens if gethostid() can't open /etc/hostid.

idle.2

mtk

Made NOTES text into a VERSIONS section, since that's what it really describes.

ioperm.2

mtk

Minor wording changes.

intro.2

mtk

Rewrite to reflect the fact that the _syscallN macros are no longer available.

io_cancel.2

mtk

Add "Link with -laio" to SYNOPSIS.

io_destroy.2

mtk

Add "Link with -laio" to SYNOPSIS.

io_getevents.2

mtk

Add "Link with -laio" to SYNOPSIS.

io_setup.2

mtk

Add "Link with -laio" to SYNOPSIS.

io_submit.2

Ivana Varekova

Fix include in SYNOPSIS.

mtk

Add "Link with -laio" to SYNOPSIS.

ipc.2

mtk

Add semtimedop() to SEE ALSO.

Note that some architectures don't have ipc(2); instead
real system calls are provided for shmctl(), semctl(), etc.

killpg.2

mtk

Minor wording changes.

listen.2

mtk

Added <sys/types.h> to SYNOPSIS.

sched_setscheduler.2

mtk

Add NOTES para about permissions required to call
sched_setscheduler() on other systems.

select.2

mtk

Noted that 'timeout' can also be changed if select() is
interrupted by a signal.

setup.2

mtk

Remove reference to `_syscall0()` macro.

shmop.2

mtk

Changed text for `EINVAL` error.

socketcall.2

mtk

Add `recvmsg()` and `sendmsg()` to `SEE ALSO`.

Note that some architectures don't have `socketcall(2)`; instead real system calls are provided for `socket()`, `bind()`, etc.

swapon.2

Ivana Varekova / mtk

Update text for `EPERM` error describing the maximum number of swap files. (From downstream Fedora patch.)

write.2

mtk

Added details about seekable files and file offset.

Noted that `write()` may write less than 'count' bytes, and gave some examples of why this might occur.

Noted what happens if `write()` is interrupted by a signal.

Minor wording changes.

`__setfpucw`.3

mtk

Added a `CONFORMING TO` section; other minor edits.

`confstr`.3

mtk

Minor rewrites in code example.

`ctime`.3

Justin Pryzby

Make `SEE ALSO` refer to `timegm`.3

`daemon`.3

mtk

Small wording change.

`dl_iterate_phdr`.3

Michael Gehring

Comment was missing closing `"*/"`.

`dlopen`.3

mtk

Formatting changes, and minor rewordings.

mtk, after a note by Serge van den Boom

Add a comment explaining the need for the rather strange cast of the return value of `dlsym()`.

`fpclassify.3`

mtk

Add "isinf" to NAME section.

`getgrouplist.3`

mtk

Minor rewording.

`getline.3`

mtk

Minor rewording, and note that '*n*' is ignored if '*lineptr' is NULL.

`malloc.3`

Ivana Varekova / mtk

Update description of `MALLOC_CHECK_` to include description for value 3. (From downstream Fedora patch.)

`netlink.3`

mtk

Added a CONFORMING TO section; other minor edits.

`openpty.3`

mtk

Minor changes to SYNOPSIS.

`program_invocation_name.3`

mtk

Shortened page title to `INVOCATION_NAME`.

`rtnetlink.3`

mtk

Added a CONFORMING TO section; other minor edits.

`scanf.3`

Florian Ernst

Fix duplicated word "the".

(Really fix <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=412467> !)

`select_tut.3`

mtk

Small wording change.

setnetgrent.3

mtk

Added a CONFORMING TO section.

sigpause.3

mtk

Added a CONFORMING TO section.

strftime.3

Just Pryzby

Small wording fix.

mtk

Note use of "gcc -Wno-format-y2k" to avoid the "'%c' yields only last 2 digits of year in some locales" warning.

strstr.3

mtk

Add "strcasestr" to NAME section.

syslog.3

mtk

Small wording change.

termios.3

mtk

Reformat SYNOPSIS.

Added a CONFORMING TO section.

timegm.3

mtk

Small wording changes.

ulimit.3

mtk

Remove erroneous text saying that glibc does not provide <ulimit.h>; it does.

initrd.4

mtk

Various reformattings.

core.5

mtk

Added a sentence noting why core dumps named "core.PID" were useful with LinuxThreads.

bootparam.7

mtk
Fix capitalization in .SS headings.

epoll.7
mtk
Language clean ups.

feature_test_macros.7
mtk
Added SEE ALSO section.

mq_overview.7
mtk
Reformatted headings; minor rewrites.

sem_overview.7
mtk
Reformatted headings; minor rewrites.

socket.7
Loïc Minier <lool@dooz.org>
Document argument type for SO_REUSEADDR.
See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=255881>

uri.7
mtk
Wrap long line in SYNOPSIS.

ldconfig.8
mtk
Added SEE ALSO section.

==== Changes in man-pages-2.62 =====

Released: 2007-07-09

This release consists solely of formatting fixes. There are no changes to content.

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Stepan Kasal <kasal@ucw.cz>

Apologies if I missed anyone!

Global changes

Many many pages

mtk

Many many formatting fixes.

man[013]p/*

Stepan Kasal

Add section number to .TH line for POSIX pages in man[013]p.

==== Changes in man-pages-2.63 =====

Released: 2007-07-16

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Justin Pryzby <justinpryzby@users.sourceforge.net>

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Martin Röhricht <martin@roehricht.info>

Patrick Mansfield <patmans@us.ibm.com>

Pierre Habouzit <madcoder@debian.org>

Stepan Kasal <kasal@ucw.cz>

Apologies if I missed anyone!

Global changes

gettimeofday.2

madvise.2

msgctl.2

select.2

semctl.2

shmctl.2

syslog.2

stat.2

a64l.3

printf.3

termios.3

xdr.3

sd.4

mtk

Minor wording changes.

obsolete.2

syscall.2

unimplemented.2

mtk

Added SEE ALSO reference to syscalls.2.

New pages

sgetmask.2

mtk

A real man page for sgetmask(2) and ssetmask(2).

(This page replaces a previous link of the same name, which
linked to signal.2.)

spu_create.2

Arnd Bergmann with additional work by Eduardo M. Fleury and mtk

Document the PowerPC SPU spu_create() system call.

(Originally taken from the kernel source file
Documentation/filesystems/spufs.txt.)

spu_run.2

Arnd Bergmann with additional work by Eduardo M. Fleury and mtk

Document the PowerPC SPU spu_run() system call.

(Originally taken from the kernel source file
Documentation/filesystems/spufs.txt.)

spufs.7

Arnd Bergmann with additional work by Eduardo M. Fleury and mtk

Document the PowerPC SPU file system.

(Originally taken from the kernel source file
Documentation/filesystems/spufs.txt.)

Removed Pages

[__clone.2](#)

mtk

This file was created by accident in 2.61, as a copy of clone.2.
(it should have been a link to clone.2.)

[obsolete.2](#)

mtk

Details on this page are covered in syscalls.2 and in
respective syscall man pages (stat.2, uname.2).

[undocumented.2](#)

mtk

This page is very out of date, and in any case difficult
to maintain. Information about undocumented system calls
is maintained in the HOWTOHELP file, and probably in other
places soon.

[killpg.3](#)

mtk

This rather incomplete page seems unnecessary since there
is a killpg.2.

New links

[chown32.2](#)

[fchown32.2](#)

[getegid32.2](#)

[geteuid32.2](#)

[getgid32.2](#)

[getgroups32.2](#)

[getresgid32.2](#)

[getresuid32.2](#)

[getuid32.2](#)

[lchown32.2](#)

[setfsgid32.2](#)

[setfsuid32.2](#)

[setgid32.2](#)

[setgroups32.2](#)

[setregid32.2](#)

[setresgid32.2](#)

[setresuid32.2](#)

[setreuid32.2](#)

[setuid32.2](#)

mtk

Added as link to corresponding page without "32".

fcntl64.2
fstat64.2
fstatat64.2
fstatfs64.2
ftruncate64.2
getdents64.2
lstat64.2
pread64.2
pwrite64.2
sendfile64.2
stat64.2
statfs64.2
truncate64.2

mtk

Added as link to corresponding page without "64".

__clone2.2
clone2.2

mtk

Links to clone.2.

ugetrlimit.2

mtk

Link to getrlimit.2.

mq_notify.2
mq_open.2
mq_timedreceive.2
mq_timedsend.2
mq_unlink.2

mtk

Added as links to corresponding section 3 pages.

fadvise64.2
fadvise64_64.2

mtk

Links to posix_fadvise.2.

rt_sigaction.2
rt_sigpending.2
rt_sigprocmask.2
rt_sigtimedwait.2

mtk

Added as link to corresponding page without "rt_" prefix.

rt_sigqueueinfo.2

mtk

[Link to sigqueue.2.](#)

madvise.1.2

tuxcall.2

vserver.2

mtk / Ivana Varekova

[Link to unimplemented.2.](#)

Changes to individual pages

access.2

mtk

Fairly substantial rewrites of various parts,
and a few additions.

chmod.2

mtk

Update SYNOPSIS to reflect the fact that fchmod(2) needs
either "#define _XOPEN_SOURCE 500" or "#define _BSD_SOURCE".

chown.2

mtk

Update SYNOPSIS to reflect the fact that fchmod(2) and lchown(2)
need either "#define _XOPEN_SOURCE 500" or "#define _BSD_SOURCE".
Added an example program.

killpg.2

mtk

Note that killpg() is actually a library function on Linux.

mmap.2

mtk

Added note that glibc mmap() wrapper nowadays invokes mmap2().

mmap2.2

Ivana Varekova / mtk

On most platforms the unit for 'offset' is 4096 bytes, not
the system page size.

mtk

Rewrote NOTES to note that glibc mmap() wrapper nowadays
invokes this system call.

mtk

Added an EXAMPLE program.

oldfstat.2

oldlstat.2

oldstat.2

mtk

Changed link to point to stat.2 (instead of obsolete.2).

olduname.2

oldolduname.2

mtk

Changed link to point to uname.2 (instead of obsolete.2).

sched_setaffinity.2

Martin Röhrich

Added `_GNU_SOURCE` to SYNOPSIS.

semctl.2

mtk

Remove reference discussion of ipc(2), since none of the other System V IPC pages mention ipc(2).

semop.2

mtk

Add an example code segment.

shmctl.2

mtk

Add svipc(7) to SEE ALSO list.

sigaction.2

mtk

Reformatted tables as lists; other minor reformatting and wording changes.

sigqueue.2

mtk

Added info on `rt_sigqueueinfo(2)`.

sigwaitinfo.2

mtk

Noted that `sigwaitinfo()` is a library function implemented on top of `sigtimedwait()`.

ssetmask.2

mtk

Make this link point to new `sgetmask.2` instead of `signal.2`.

stat.2

mtk

Add notes on the different system call interfaces that have appeared over time.

syscalls.2

mtk

A fairly substantial rewrite of this page, bringing it up to date with the current kernel version, and listing all system calls in tabular form.

uname.2

mtk

Add notes on the different system call interfaces that have appeared over time.

unimplemented.2

mtk

Add vserver, madvise1 to NAME line.
Removed SEE ALSO reference to obsolete.2.

Ivana Varekova

Add tuxcall to NAME line.

mktemp.3

Patrick Mansfield

Fix description of return value.

strcat.3

Marc Boyer

Minor fix to example program.

undocumented.3

mtk

Add section numbers to function names; remove some functions since they are documented.

proc.5

mtk

Update/correct text on /proc/malloc.

mtk, after a note by Pierre Habouzit, and a few comments by Justin Pryzby

Update description of /proc/PID/stat to match 2.6.21.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=417933>

inotify.7

mtk

IN_DONT_FOLLOW and IN_ONLYDIR are only available from 2.6.15.

signal.7

Stepan Kasal / mtk

Note SIGRTMIN value depends on glibc.

mtk

Various rewrites and additions to the text in real-time signals.

Add SEE ALSO reference to sgetmask.2.

svipc.7

mtk

Add ipc(2) to SEE ALSO.

===== Changes in man-pages-2.64 =====

Released: 2007-07-27

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Aleksandr Koltsoff <cZR@iki.fi>

Andries Brouwer <Andries.Brouwer@cwi.nl>

Justin Pryzby <justinpryzby@users.sourceforge.net>

Apologies if I missed anyone!

Global changes

INFINITY.3

_exit.2

a64l.3

abs.3

acct.2

acosh.3

addseverity.3

adjtime.3

asinh.3

atanh.3

atoi.3

brk.2

cbrt.3

cfree.3

chdir.2

chmod.2

chown.2

clearenv.3

clock_getres.3

clone.2
confstr.3
copysign.3
ctermid.3
ctime.3
daemon.3
dirfd.3
div.3
drand48.3
drand48_r.3
dysize.3
ecvt.3
ecvt_r.3
erf.3
euidaccess.3
exp2.3
expm1.3
fdatasync.2
ferror.3
fexecve.3
fgetgrent.3
fgetpwent.3
finite.3
flockfile.3
fopen.3
fpclassify.3
fsync.2
futimes.3
fwide.3
gamma.3
gcvt.3
getcwd.3
getdate.3
getdiretries.3
getdomainname.2
getdtablesize.2
getgrent.3
getgrent_r.3
getgrouplist.3
getgroups.2
gethostbyname.3
gethostid.2
gethostname.2
getlogin.3
getmntent.3
getpagesize.2
getpw.3
getpwent.3

getpwent_r.3
getpwnam.3
getsid.2
getspnam.3
gettimeofday.2
getumask.3
getusershell.3
gsignal.3
hypot.3
inet.3
initgroups.3
insque.3
isalpha.3
iswblank.3
j0.3
kill.2
killpg.2
lgamma.3
lockf.3
log1p.3
log2.3
logb.3
longjmp.3
lrint.3
lround.3
madvise.2
mbsnrtowcs.3
memfrob.3
mincore.2
mkdtemp.3
mknod.2
mkstemp.3
mktemp.3
nan.3
nanosleep.2
nextafter.3
nice.2
on_exit.3
perror.3
posix_memalign.3
posix_openpt.3
printf.3
profil.3
psignal.3
putenv.3
putpwent.3
qecvt.3
rand.3

random.3
rcmd.3
readahead.2
readlink.2
realpath.3
remainder.3
remquo.3
rexec.3
rint.3
round.3
rpmatch.3
scalb.3
scandir.3
scanf.3
seekdir.3
select.2
sem_wait.3
semop.2
setbuf.3
setenv.3
seteuid.2
setjmp.3
setnetgrent.3
setpgid.2
setresuid.2
setreuid.2
sigaltstack.2
siginterrupt.3
significand.3
sigqueue.2
sigvec.3
sigwaitinfo.2
socketmark.3
stat.2
stime.2
strdup.3
strerror.3
strsep.3
strtod.3
strtok.3
strtol.3
strtoul.3
symlink.2
sync.2
syscall.2
syslog.3
tcgetsid.3
teldir.3

tempnam.3
termios.3
tgamma.3
timegm.3
toascii.3
trunc.3
truncate.2
ttyslot.3
tzset.3
ualarm.3
unlocked_stdio.3
unshare.2
usleep.3
vfork.2
vhangup.2
wait.2
wait4.2
wscasecmp.3
wsncasecmp.3
wcsnlen.3
wcsnrtombs.3
wcswidth.3
wordexp.3
wprintf.3

mtk

Added/updated feature test macro requirements for
glibc; see [feature_test_macros.7](#) for details.

Changes to individual pages

mq_notify.2
mq_open.2
mq_timedreceive.2
mq_timedsend.2
mq_unlink.2

mtk

Fix broken link

setpgid.2

mtk

Fairly substantial changes and corrections, including adding
coverage of all of the interfaces that get/set PGIDs.

syscalls.2

mtk / aeb

Various rewordings; clear up some imprecisions.

lgamma.3

mtk

Added 'signgam' to SYNOPSIS and NAME line.

strerror.3

mtk

Note that the XPG version is provided since glibc 2.3.4. The page formerly said that the GNU-specific version is provided by default. That certainly isn't true nowadays, since `_POSIX_C_SOURCE` is set to 200112L by default, so that the XSI-compliant version is supplied by default.

man-pages.7

mtk

Added note pointing to `feature_test_macros.7` for a description of how feature test macro requirements should be specified in manual pages. Various other minor fixes and changes.

feature_test_macros.7

mtk

Added note about how feature test macros are specified in manual pages. Many other corrections, improvements, additions, and details about differences across glibc versions.

==== Changes in man-pages-2.65 =====

Released: 2007-09-17

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Aleksandr Koltsoff <cZR@iki.fi>

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Ulrich Drepper <drepper@redhat.com>
Vincent Lefevre <vincent@vinc17.org>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

Various pages

mtk

Use 'glibc' consistently to refer to GNU C library.

Various pages

mtk

Order errors under ERRORS alphabetically.

Various pages

Nicolas François

Spelling and formatting fixes, as per

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=439560>

intro.2

select.2

fmtmsg.3

getgrent_r.3

envz_add.3

rtime.3

strptime.3

wordexp.3

Maxime Vaudequin

Add "#include <stdlib.h>" (to declare exit(3)) to example program.

New pages

timeradd.3

mtk

Description of timeradd(), timersub(), timerclear(), timerisset(), timercmp() macros for operating on struct timeval.

Removed pages

fdatasync.2

mtk

Somehow, over time, material on fdatsync(2) crept into fsync.2, and fdatsync also got added to the NAME section of fsync.2. All of the material in fdatsync.2 that was not already in fsync.2 has now been moved there, and the former page has been removed.

In place of the content there, is now a link to fsync.2.

New links

clock_getres.2

clock_gettime.2

clock_settime.2

mtk

Link to man3/clock_getres.3.

fdatasync.2

mtk

Link to fsync.2.

fdopendir.3

mtk

Link to opendir.3.

gethostbyaddr_r.3

Mats Wichmann

Link to gethostbyaddr.3.

timerclear.3

timercmp.3

timerisset.3

timersub.3

mtk

Links to new timeradd.3.

Changes to individual pages

Makefile

Mike Frysinger

Make the install target of man-pages respect the standard "DESTDIR" variable as well as check the exit status of the install command so errors aren't ignored.

get_mempolicy.2

Lee Schermerhorn

changed the "policy" parameter to "mode" through out the descriptions in an attempt to promote the concept that the memory policy is a tuple consisting of a mode and optional set of nodes.

added requirement to link '-lnuma' to synopsis

rewrite portions of description for clarification.

added all errors currently returned by sys call.

removed cautionary note that use of MPOL_F_NODE|MPOL_F_ADDR is not supported. This is no longer true.

added mmap(2) to SEE ALSO list.

getitimer.2

mtk

Since kernel 2.6.22, Linux setitimer() now conforms to POSIX.1, giving an EINVAL error for a non-canonical tv_usec value.

gettimeofday.2

mtk

Replace discussion of timer* macros with a pointer to new page timeradd.3.

ioctl_list.2

Nicolas George

Fixed argument type for BLKGETSIZE.

mbind.2

Lee Schermerhorn

changed the "policy" parameter to "mode" throughout the descriptions in an attempt to promote the concept that the memory policy is a tuple consisting of a mode and optional set of nodes.

rewrite portions of description for clarification.

clarify interaction of policy with mmap()'d files and shared memory regions, including SHM_HUGE regions.

defined how "empty set of nodes" specified and what this means for MPOL_PREFERRED.

mention what happens if local/target node contains no free memory.

clarify semantics of multiple nodes to BIND policy.

Note: subject to change. We'll fix the man pages when/if this happens.

added all errors currently returned by sys call.

added mmap(2), shmget(2), shmat(2) to SEE ALSO list.

mmap.2

mprotect.2

François Diakhate

Add text noting that PROT_WRITE may (and on x86 does) imply PROT_READ.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=441387>

nfsservctl.2

Aleksandr Koltsoff

Fix prototype.

oldfstat.2

oldlstat.2

oldstat.2

mtk

Fix broken link

prctl.2

mtk

Update arches/kernel versions for PR_SET_UNALIGNED / PR_GET_UNALIGNED.

readahead.2

mtk

Removed SEE ALSO reference to nonexistent fadvise.2.

reboot.2

mtk

Place SYNOPSIS comments inside C comments (`/* ... */`).

sched_setaffinity.2

Samuel Thibault

Note what thread is affected if 'pid' is specified as 0, or as the value returned by `getpid()`.

sched_setscheduler.2

Carsten Emde

Add text on real-time features of mainline Linux kernel.

select_tut.2

mtk

sync SYNOPSIS with `select.2`

set_mempolicy.2

Lee Schermerhorn

changed the "policy" parameter to "mode" throughout the descriptions in an attempt to promote the concept that the memory policy is a tuple consisting of a mode and optional set of nodes.

added requirement to link '-lnuma' to synopsis

rewrite portions of description for clarification.

clarify interaction of policy with `mmap()`'d files.

defined how "empty set of nodes" specified and what this means for `MPOL_PREFERRED`.

mention what happens if local/target node contains no free memory.

clarify semantics of multiple nodes to `BIND` policy.

Note: subject to change. We'll fix the man pages when/if this happens.

added all errors currently returned by sys call.

added `mmap(2)` to `SEE ALSO` list.

sigaction.2

mtk

`s/si_sign/si_errno/` in statement about which field is unused.

Ari Entlich

s/SIGILL/SIGCHLD/ for paragraph describing SIGCHLD.

stat.2

mtk

Improve text describing underlying system calls.

swapon.2

Michael Prokop

EINVAL also occurs if target path is on tmpfs or similar.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=435885>

sync.2

mtk

Incorporated material from now deleted fdatasync.2.

syscall.2

mtk

Small fix in example program.

uname.2

mtk

Improve text describing underlying system calls.

utime.2

Vincent Lefevre / mtk

Clarify utimes() behaviour when 'times' is NULL.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=431480>

mtk

Other minor clarifications of description of utimes().

copysign.3

Vincent Lefevre

s/sign/sign bit/ to remove ambiguity in description.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=435415>

eidaccess.3

mtk

Changed NOTES to VERSIONS.

ffsl.3

mtk

Add ffsl and ffsll to NAME line.

fts.3

mtk

Removed statement that fts functions are expected to appear soon in POSIX; it's years old and has not yet come to pass.

ftw.3

mtk / Geoff Clare

Fixes/improvements for example program.

getdate.3

mtk

Add getdate_r to NAME section.

getaddrinfo.3

mtk / Geoff Clare

Fixes/improvements for example program.

gethostbyaddr.3

Mats Wichmann

Add documentation for gethostbyaddr_r().

Plus a few other small fixes.

gethostbyname.3

mtk

Add gethostbyname2, gethostbyname2_r, gethostbyname_r,
gethostent_r to NAME line.

getmntent.3

mtk

Fix misnamed function references.

getopt.3

Jon Burgess

Fix small error in example program.

getrpcent.3

mtk

Add setrpcent and endrpcent to NAME line.

gsignal.3

Aleksandr Koltsoff

Fix gsignal() prototype.

hsearch.3

mtk

Add hcreate_r, hdestroy_r, hsearch_r to NAME line.

inet.3

Maxime Bizon

Correct definition of "struct in_addr".

isatty.3

mtk

Minor wording fix.

isgreater.3

mtk

Add islessequal to NAME line.

lgamma.3

Vincent Lefevre

Fix CONFORMING TO section.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=417592>

log1p.3

mtk

Add log1pf and log1pl to NAME line.

longjmp.3

Paul Brook / mtk

After a call to longjmp(), the values of modified, non-volatile variables in the function that called setjmp() are unspecified.

makecontext.3

Aleksandr Koltsoff

Fix makecontext() prototype.

malloc.3

mtk / Tolga Dalman

Explain what happens for malloc(0), or calloc() where one of the arguments is 0.

mtk

Added notes on malloc()'s use of sbrk() and mmap().

mtk

Add mmap(2), alloca(3) to SEE ALSO.

mq_close.3

mq_getattr.3

mq_notify.3

mq_open.3

mq_receive.3

mq_send.3

mq_unlink.3

mtk

Add "Link with -lrt." to SYNOPSIS.

opendir.3

Ulrich Drepper; some edits and additional text by mtk

Document fdopendir().

readdir.3

mtk, after a note by Andi Kleen

Document DT_* constants for d_type.

Ulrich Drepper / mtk

Rework discussion of non-standard structure fields.

sem_wait.3

mtk

Minor improvements to example program.

syslog.3

mtk

Add vsyslog to NAME section.

termios.3

Nicolas François

Fix XCASE feature test macro description.

wcsspn.3

Aleksandr Koltsoff

Add return type to prototype.

proc.5

mtk

Improve description of num_threads field under /proc/PID/stat.

Maxime Vaudequin

Fix path error (s%proc/sys%proc/sys/kernel%) in mentions of /proc/sys/ostype, /proc/sys/osrelease and proc/sys/version.

Maxime Vaudequin

I noticed things to correct and to clarify in subsection

"/proc/filesystems" of proc.5:

- clarify filesystems listing: not only FS compiled into the kernel, also FS kernel modules currently loaded
- add a reference to fs(5)
- add an explanation for FS marked with "nodev"
- s/mount(1)/mount(8)/, also corrected in section "SEE ALSO"
- clarify usage by mount: the current wording may lead to think /proc/filesystems is always used by mount when no FS is specified. So, usage of "may" which IMHO is more appropriate + additional explanations

In mount(8) we can see:

If no -t option is given, or if the auto type is specified, mount will try to guess the desired type.

If mount was compiled with the blkid library, the guessing is done by this library. Otherwise, mount guesses itself by probing the superblock; if that does not turn up anything that looks familiar,

mount will try to read the file /etc/filesystems, or, if that does not exist, /proc/filesystems. All of the filesystem types listed there will be tried, except for those that are labeled "nodev" (e.g., devpts, proc and nfs). If /etc/filesystems ends in a line with a single * only, mount will read /proc/filesystems afterwards.

Samuel Thibault

Since linux 2.6.11, /proc/stat has an eighth value for cpu lines: stolen time, which is the time spent in other operating systems when running in a virtualized environment.

arp.7

Updated BUGS text referring to jiffies; refer to time.7 instead.

credentials.7

mtk

Add words to note that file system ID is Linux specific.

hier.7

Maxime Vaudequin

This is some corrections for hier.7:

- missing period for /media and /mnt
- /mnt description is not totally correct, it is true for some distributions but in others /mnt is used as a temporary FS mount point, as it is specified by FHS:
<http://www.pathname.com/fhs/pub/fhs-2.3.html#MNTMOUNTPOINTFORATEMPORARILYMOUNT>
- s/X-Windows/X-Window/ (3 occurrences)
- section "SEE ALSO": s/mount(1)/mount(8)/

man-pages.7

man.7

mdoc.7

mdoc.samples.7

mtk / Nicolas François

Nowadays tmac.XXX are called XXX.tmac.

pthreads.7

mtk

Update text about modern threading implementations (NPTL vs LinuxThreads).

socket.7

mtk, after a note by Andi Kleen

Clarify that SO_SNDTIMEO and SO_RCVTIMEO only have effect for socket I/O calls; not for multiplexing system calls like select() and poll().

time.7

mtk

Add SEE ALSO reference to new timeradd.3.

=====
===== Changes in man-pages-2.66 =====
=====

Released: 2007-10-01

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Fredrik Noring <noring@nocrew.org>

Mats Wichmann <mats.d.wichmann@intel.com>

Maxime Vaudequin <maxime.vaudequin@gmail.com>

Ollie Wild <aaw@google.com>

Ulrich Drepper <drepper@redhat.com>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

fallocate.2

David Chinner, with some input from Amit Amora and mtk

Describes the fallocate() system call, new in 2.6.23.

Changes to individual pages

close.2

Fredrik Noring

Add text cautioning about use of close() in

multithreaded programs.

execve.2

Ollie Wild / mtk

Add text describing limit on total size of argv + envp,
and changes that occurred with 2.6.23.

mtk

Add getopt(3) to SEE ALSO list.

open.2

mtk, Acked by Ulrich Drepper

Added description of O_CLOEXEC (new in 2.6.23) + other
minor fixes for O_DIRECT.

recv.2

mtk

Added description of MSG_CMSG_CLOEXEC (new in 2.6.23).

sysctl.2

mtk

Strengthened the warning against using this system call
and note that it may disappear in a future kernel version.

rpc.3

Mats Wichmann

Fix type definition for 'protocol' in prototypes of pmap_set()
and pmap_getport().

==== Changes in man-pages-2.67 =====

Released: 2007-10-08

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

Andi Kleen <andi@firstfloor.org>

Andrew Josey <a.josey@opengroup.org>

Maxime Vaudequin <maxime.vaudequin@gmail.com>

Apologies if I missed anyone!

Global changes

*.1p

*.3p

mtk, after a note by Andi Kleen and consultation with Andrew Josey.

Add a PROLOG section:

This manual page is part of the POSIX Programmer's Manual.

The Linux implementation of this interface may differ

(consult the corresponding Linux manual page for details

of Linux behavior), or the interface may not be implemented

on Linux.

*.0p

*.1p

*.3p

mtk

Some formatting fixes, mostly to get rid of unwanted

spaces before "," in formatted output.

*

/

mtk

Change all occurrences of my email address in man-pages source

to my new gmail address.

Many many pages

Maxime Vaudequin

I noticed useless use of macros with alternating formatting

("`.IR`" instead "`.I`" which suffices, "`.BR`" instead "`.B`", etc.)

because there is only one element. For example in `ldconfig.8`:

```
-.BR /sbin/ldconfig
```

```
+.B /sbin/ldconfig
```

This is not very important, it only makes the sources more tidy.

To find these I used:

```
egrep '\.(B[RI]|R[IB]|I[RB]) ([^ ]+|\("[^"]\|"+")$'
```

And if you want to make these changes, you can use:

```
sed 's/^\(.\[BRI]\)\[BRI]\( ([^ ]+|\("[^"]\|"+")\)$\1\2/g'
```

==== Changes in man-pages-2.68 =====

Released: 2007-11-19

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Heikki Orsila <shd@modeemi.cs.tut.fi>
Hyokyong Kim <hyokyong@ppj.kr>
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Justin Pryzby <jpryzby+d@quoininc.com>
Maxime Vaudequin <maxime.vaudequin@gmail.com>
Mike Frysinger <vapier@gentoo.org>
Nicolas François <nicolas.francois@centraliens.net>
Pádraig Brady <P@draigBrady.com>
Sam Varshavchik <mrsam@courier-mta.com>
Timo Juhani Lindfors <timo.lindfors@iki.fi>
Ulrich Drepper <drepper@redhat.com>

Apologies if I missed anyone!

Global changes

facestat.2
fchmodat.2
fchownat.2
fstatat.2
futimesat.2
linkat.2
mkdirat.2
mknodat.2
readlinkat.2
renameat.2
symlinkat.2
mkfifoat.3
mtk, after <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=445436>
by Timo Juhani Lindfors
Added <fcntl.h> to SYNOPSIS.

Typographical or grammatical errors have been corrected in several places.

New pages

_syscall.2

mtk

Created as a new page, by taking the content specific to the _syscall() macros from intro(2).

Changes to individual pages

README

mtk

Brought up to date.

man-pages-*-Announce

mtk

Brought the info in here up to date.

intro.1

mtk

Added intro paragraph about section, plus a paragraph about exit status values.

Move "user intro" text to NOTES.

get_mempolicy.2

mtk

Reorder ERRORS sections alphabetically

intro.2

mtk

Pretty much a complete rewrite, covering some additional topics.

Moved _syscallN() material to new _syscall(2) page.

mbind.2

mtk

Reorder ERRORS sections alphabetically

mmap.2

Maxime Vaudequin

Fix syntax error in example program.

prctl.2

mtk

Linux 2.6.22 added support on Alpha for PR_SET_UNALIGN.

ptrace.2

Nicolas François / mtk

s/PTRACE_POKEUSR/PTRACE_POKEUSER/
s/PTRACE_PEEKUSR/PTRACE_PEEKUSER/

read.2

mtk / Geoff Clare

Add text describing timerfd EINVAL error for read(2).

set_mempolicy.2

mtk

Reorder ERRORS sections alphabetically

syscall.2

mtk

Added _syscall(2) and intro(2) to SEE ALSO section.

syscalls.2

mtk

Added fallocate(2); removed timerfd(2).

sysinfo.2

mtk

Removed reference to example in intro(2).

dlopen.3

mtk

Added "Link with -ldl." to SYNOPSIS.

getaddrinfo.3

Ulrich Drepper / mtk

Remove references to getipnodebyname.3 and getipnodebyaddr.3.

gethostbyname.3

mtk / Ulrich Drepper

Remove SEE ALSO references to getipnodebyname.3 and
getipnodebyaddr.3.

Pádraig Brady / mtk / Ulrich Drepper

Point out that the functions described on this page
are made obsolete by getaddrinfo(3) and getnameinfo(3).

getipnodebyname.3

mtk

Clarify that glibc does not implement these functions.

glob.3

Ulrich Drepper / mtk

Fix description of GLOB_ONLYDIR.

mtk

Added description of GLOB_TILDE_NOMATCH.

Expanded the description of various flags.

Various wording fixes..

intro.3

mtk

Pretty much a complete rewrite, covering some additional topics.

posix_fallocate.3

mtk

Add SEE ALSO referring to fallocate.2.

rpc.3

Sam Varshavchik

Add some arg declarations to prototypes; fix typos.

setbuf.3

Mike Frysinger

Fix text in BUGS section.

sigset.3

mtk

The sigset() bugs were fixed in glibc 2.5.

See http://sourceware.org/bugzilla/show_bug.cgi?id=1951

intro.4

mtk

Minor rewrites.

st.4

Maxime Vaudequin

Various small corrections, formatings and modifications.

elf.5

Mike Frysinger

Document:

- new p_flag: PT_GNU_STACK

- new sections: .gnu.version .gnu.version_d .gnu.version_r
.note.GNU-stack

- new structures: ElfN_Verdef ElfN_Verdaux ElfN_Verneed
ElfN_Vernaux

intro.5

mtk

Minor rewrites.

proc.5

Ivana Varekova / mtk

Add text noting that since kernel 2.6.16, /proc/slabinfo is only available if CONFIG_SLAB is enabled.

Maxime Vaudequin

Update description of /proc/pci.

Maxime Vaudequin

Give italic formatting to file names in proc.5.

mtk

The display type of the /proc/PID/stat fields changed

%lu to %u in Linux 2.6.22:

flags

rt_priority

policy

slabinfo.5

Ivana Varekova / mtk

Add text noting that since kernel 2.6.16, /proc/slabinfo is only available if CONFIG_SLAB is enabled.

intro.6

mtk

Minor rewrites.

bootparam.7

Maxime Vaudequin

Update references to files in kernel "Documentation" directory.

intro.7

mtk

Minor rewrites.

ipv6.7

Andrew McDonald

Fix description of IPV6_ROUTER_ALERT option.

standards.7

mtk

Note online location of C99 standard.

intro.8

mtk

Some rewrites, plus new paragraph on exit status values.

==== Changes in man-pages-2.69 =====

Released: 2007-12-03

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Adam Borowski <kilobyte@angband.pl>
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J. Bruce Fields <bfields@citi.umich.edu>
David Härdeman <david@hardeman.nu>
Jeremy Kerr <jk@ozlabs.org>
Luke Browning <lukebr@linux.vnet.ibm.com>
Mats Wichmann <mats.d.wichmann@intel.com>
Maxime Vaudequin <maxime.vaudequin@gmail.com>
Mike Frylinger <vapier@gentoo.org>
Reuben Thomas <rrt@sc3d.org>
Sam Varshavchik <mrsam@courier-mta.com>

Apologies if I missed anyone!

Global changes

*.[013]p

mtk

Many whitespace clean-ups in formatted output.

mprotect.2

bind.2

mq_notify.3

makecontext.3

fmemopen.3

David Härdeman / mtk

Rename error handling function in example program

(s/die/handle_error/).

Typographical or grammatical errors have been corrected in several places.

Removed pages

HOWTOHELP

MAINTAINING

mtk

The content of these files is now available in HTML format.

New links

cfsetpspeed.3

mtk

Link to termios.3.

Changes to individual pages

time.1

Alain Portal

Added "Linux User's Manual" to .TH line.

_syscall.2

aeb / mtk

Remove outdated text about pointer blocks for syscalls that have more than 5 arguments.

fcntl.2

J. Bruce Fields

Add warning that mandatory locking is unreliable.

J. Bruce Fields

Clarify details in description of file leases.

J. Bruce Fields / mtk

Minor wording edits.

J. Bruce Fields

Add F_GETLEASE under RETURN VALUE.

mmap.2

mtk

Handle errors using a custom handle_error() macro.

sched_setscheduler.2

Mats Wichmann

Add BUGS text noting that the return value from Linux sched_setschuler() does not conform to POSIX.

spu_create.2

Jeremy Kerr

Various updates and improvements.

Luke Browning

Refinement of text describing a "gang".

mtk

Minor edits.

spu_run.2

Jeremy Kerr

Various updates and improvements.

mtk

Minor edits.

err.3

mtk

Remove HISTORY section.

fopen.3

Mike Frysinger

Document 'e' (close-on-exec) option, new in glibc 2.7.

getloadavg.3

Alain Portal / mtk

Remove HISTORY section.

printf.3

Andries E. Brouwer / mtk

Fix the discussion of stdarg macros in the description of vprintf() description.

sem_wait.3

mtk

Handle errors using a custom handle_error() macro.

sigsetops.3

Mats Wichmann

Note that sigset_t objects must be initialized with sigemptyset() or sigfillset() before the other macros are employed.

termios.3

mtk, after a note by Alain Portal

Added cfsetpspeed() to SYNOPSIS. Added text under CONFORMING TO noting that cfsetpspeed() is BSD specific.

ttyslot.3

Alain Portal

Various references to "getty" were changed to "mingetty", since that is the manual page more likely to be found on current systems. (Completes changes that were made in man-pages-2.44.)

initrd.4

mtk, after a note by Alain Portal

Move "Configuration" section to top of page (like other section 4 pages) and make it a .SH section.

full.4

mtk

Re-ordered CONFIGURATION section to go before DESCRIPTION.

sk98lin.4

Maxime Vaudequin

Fix reference to kernel Documentation file.

elf.5

mtk

Renamed HISTORY section to NOTES, and removed BSD specific info.

proc.5

Maxime Vaudequin

Mention grub(8) in same sentence as lilo(8).

Maxime Vaudequin

Improve description of /proc/sys/abi and
/proc/sys/kernel/modprobe.

utmp.5

Alain Portal

Various references to "getty" were changed to "mingetty", since that is the manual page more likely to be found on current systems. (Completes changes that were made in man-pages-2.44.)

iso_8859-2.7

Adam Borowski

Reverse the 2.68 change applied by mtk in response to <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=445085> that replaced "Sorbian" with "Serbian".
(Sorbian is a language of 50000 people in Brandenburg.)

man-pages.7

mtk

Added CONFIGURATION to list of "standard" section names.

spufs.7

Jeremy Kerr

Various updates and improvements.

mtk

Minor edits.

tcp.7

Maxime Vaudequin

Fix reference to kernel Documentation file.

Released: 2007-12-06

Global changes

Many pages

mtk

Remove section numbers for page references where the reference refers to the page itself. (This stops man2html producing links from a page back to itself.)

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

get_mempolicy.2

mtk

Add CONFORMING TO section.

io_getevents.2

mtk

Remove redundant SEE ALSO entry.

mbind.2

mtk

Add CONFORMING TO section.

msgop.2

mtk

Remove redundant SEE ALSO entries.

sigprocmask.2

mtk

Remove redundant SEE ALSO entry.

splice.2

mtk

Remove redundant SEE ALSO entry.
Add SEE ALSO referring to vmsplice(2).

csin.3

mtk

Remove redundant SEE ALSO entry.

Add SEE ALSO referring to ccos(3).

gethostbyname.3

mtk

Add gethostbyaddr_r to NAME section.

rint.3

mtk

Remove redundant SEE ALSO entry.

sigsetops.3

mtk

Minor rewording.

epoll.7

mtk

Minor rewording.

===== Changes in man-pages-2.71 =====

Released: 2007-12-14

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>

John Sigler <linux.kernel@free.fr>

Josh Triplett <josh@freedesktop.org>

Mats Wichmann <mats.d.wichmann@intel.com>

Pascal MALAISE <malaise@magic.fr>

Sam Varshavchik <mrsam@courier-mta.com>

Apologies if I missed anyone!

Global changes

err.3

fts.3

getloadavg.3

queue.3

rcmd.3

rexec.3

stdin.3

elf.5

operator.7

mtk

Replaced the use of mdoc macros on these pages with man macros. The only pages in man-pages that still use mdoc macros are mdoc.7 and mdoc.samples.7.

Typographical or grammatical errors have been corrected in several places.

Deleted pages

TODO

mtk

This information is now on the website.

Changes to individual pages

Changes.old

mtk

Reformat various change log entries to use a consistent format.
Expand Debian bug report numbers to be URLs.
Other minor tidy-ups.

fcntl.2

mtk

Document the F_DUPFD_CLOEXEC operation, which is new in kernel 2.6.24.

listen.2

Josh Triplett

Fix incorrect path for somaxconn.

getpw.3

Alain PORTAL

Add ENOENT error to ERRORS.

sysconf.3

Mats Wichmann

Add documentation of _SC_NPROCESSORS_CONF and _SC_NPROCESSORS_ONLN.

tty.4

John Sigler

Add tty_ioctl(4) to SEE ALSO list.

regex.7

Pascal MALAISE <malaise@magic.fr>

Separate text on back references from that describing basic regexps,
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=379829>.

mtk

Remove crufty text about word boundaries.

===== Changes in man-pages-2.72 =====

Released: 2007-12-14

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>

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Bert Wesarg <bert.wesarg@googlemail.com>

Maxime Vaudequin <maxime.vaudequin@gmail.com>

Rob Weryk <rjweryk@uwo.ca>

Sam Varshavchik <mrsam@courier-mta.com>

Apologies if I missed anyone!

Global changes

Various pages

Alain PORTAL / mtk

Format include files consistently ("*.I* <.*\h>").

Various pages

Alain PORTAL / mtk

Format pathname in italics (*.I*).

dbopen.3

mpool.3

recno.3

Alain PORTAL

Remove brackets ([]) around error names.

console.4

tty.4

ttyS.4

issue.5

ttytype.5

utmp.5

mtk / Maxime Vaudequin

Some systems have mingetty(8), others have agetty(8), so both should be mentioned when we are talking about getty-style programs.

Typographical or grammatical errors have been corrected in several places.

Renamed pages

filesystems.5

mtk / Alain PORTAL

Was previously fs.5

New links

argz.3

Bert Wesarg / mtk

Link to argz_add.3.

envz.3

Bert Wesarg / mtk

Link to envz_add.3.

fs.5

mtk / Alain PORTAL

Link to filesystems.5.

Changes to individual pages

readahead.2

Rob Weryk

Fix declaration of 'offset' in SYNOPSIS.

seteuid.2

mtk

s/SETGUID/SETEUID/ in .TH line.

__setpucw.3

mtk

Fixed include files references / formatting.

abort.3

mtk, after a note by Alex Tuninga

A fairly significant rewrite to clarify operation of abort().

argz_add.3

Bert Wesarg / mtk

s/envz/envz_add/ in SEE ALSO.

basename.3

mtk

s/DIRNAME/BASENAME/ in .TH line, and swap function names in NAME section.

envz_add.3

Bert Wesarg / mtk

s/argz/argz_add/ in SEE ALSO.

flockfile.3

mtk

s/LOCKFILE/FLOCKFILE/ in .TH line.

getgrent_r.3

mtk

s/GETGREN/GETGREN_R/ in .TH line.

stdio.3

Sam Varshavchik

Reformat function list at end of page as a proper table.

ttyslot.3

Maxime Vaudequin

Revert earlier s/getty/mingetty/. This page talks about historical behavior, and that means "getty(8)".

undocumented.3

mtk

Remove reference to "obstack stuff"; it's not clear what that is about.

console_ioctl.4

mtk

s/CONSOLE_IOCTL/CONSOLE_IOCTL/ in .TH line.

proc.5
mtk
s/fs (5)/filesystems (5)/

man-pages.7
mtk / Alain PORTAL
Improve discussion of formatting of file names.

==== Changes in man-pages-2.73 =====

Released: 2007-12-14

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>
Pádraig Brady <P@draigBrady.com>
Reuben Thomas <rrt@sc3d.org>

Apologies if I missed anyone!

Global changes

Various pages

Alain PORTAL
Formatting fixes.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

mknod.2

mtk, after a report by Reuben Thomas
Clarify use of mkfifo() versus mknod().
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=455825>

fgetgrent.3

mtk
Small rewording.

fgetpwent.3

mtk

Small rewording.

rcmd.3

mtk

Noted feature test macro requirements.

BUGS: noted that iruserok() is not declared in glibc headers.

filesystems.5

mtk

Added Reiserfs, XFS, JFS to list of file systems.

==== Changes in man-pages-2.74 =====

Released: 2007-12-20

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Alain Portal <aportal@univ-montp2.fr>

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David Brown <lkml@davidb.org>

Jeremy Kerr <jk@ozlabs.org>

Mats Wichmann <mats.d.wichmann@intel.com>

Sam Morris <sam@robots.org.uk>

Sam Varshavchik <mrsam@courier-mta.com>

Samuel Thibault <samuel.thibault@ens-lyon.org>

Apologies if I missed anyone!

Global changes

Various pages

Alain PORTAL

Formatting fixes.

Various pages

mtk / Alain Portal

s/^"..."/"..." /

Various pages

mtk

s/epoch/Epoch/

Various pages

mtk

Make the standard indent for code samples, shell session logs, etc. to be ".in +4n".

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

_syscall.2

mtk

Nowadays there is _syscall6() also.

chroot.2

mtk

Various minor formatting changes.

epoll_wait.2

mtk

Fix types in structs.
Formatting fixes.

mount.2

mtk, after a note by Sam Morris

Clarify that MS_NODIRATIME provides a subset of the functionality provided by MS_NOATIME.

sched_setaffinity.2

mtk

Minor rearrangement of text.

select_tut.2

mtk

Fix (my) typos in argument names.
Formatting fixes.

spu_create.2

Jeremy Kerr

We can use context FDs for the dirfd argument to the *at() syscalls.

times.2

mtk, after a note from David Brown and Andrew Morton

<http://marc.info/?l=linux-kernel&m=119447727031225&w=2>

Rework the text describing the return value to be closer to the requirements of POSIX.1; move Linux details to NOTES and add a warning not to rely on those details. Add a warning about the -1 to -4095 bug which results in a 41 second window where the glibc wrapper will wrongly return -1 indicating an error.

mtk

Remove cruft HZ text.

Clarify text describing return value of clock(3).

getw.3

Mats Wichmann

CONFORMING TO: getw() and putw() were in SUSv2, but are not in POSIX.1-2001.

hash.3

mtk / Alain Portal

Minor rewordings + formatting fixes.

st.4

Alain Portal / mtk

Many formatting fixes.

mtk

Place ERRORS in alphabetical order.

vcs.4

Samuel Thibault

Document VT_GETHIFONTMASK (new in 2.6.18) and add to example program; attribute/text characters are in the host byte order.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=456437>

mtk

Minor edits.

bootparam.7

Alain PORTAL

Formatting fixes.

inotify.7

mtk

Minor heading changes and reformattings.

man-pages.7

mtk

Note that code segments, structure definitions, shell session logs, should be indented by 4 spaces.

spufs.7

Jeremy Kerr

Add a little information about the differences to mbox.

==== Changes in man-pages-2.75 =====

Released: 2008-01-08

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Jeremy Kerr <jk@ozlabs.org>

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Thomas Huriaux <thomas.huriaux@gmail.com>

Timo Sirainen <tss@iki.fi>

Trond Myklebust <trond.myklebust@fys.uio.no>

Apologies if I missed anyone!

Global changes

Various pages

mtk

(Grammatical) hyphenation was fixed in many places.

epoll_wait.2

mbind.2

spu_run.2

ecvt.3

fntmsg.3

getnameinfo.3

rtc.4

proc.5

charsets.7

ip.7

ipv6.7

raw.7

uri.7

Justin Pryzby / mtk

Fix incorrect usage of "a" and "an" before following vowel /
consonant, by reviewing the output of the following scripts:

```
for a in $(wc */*.? | awk '$1 > 10 {print $4}' | gv total); do
  echo $a
  MANWIDTH=4000 man -l $a 2>/dev/null |
  egrep '(^|)an [^aeiou][a-z]'
done | less
```

```
for a in $(wc */*.? | awk '$1 > 10 {print $4}' | gv total); do
  echo $a
  MANWIDTH=4000 man -l $a 2>/dev/null |
  egrep '(^|)a [aeiou][a-z]'
done | less
```

err.3

fts.3

queue.3

rcmd.3

rexec.3

stdin.3

elf.5

mtk, after a note by Alain Portal

Improve macros used in 2.71 to convert from "mdoc" to "man".

_exit.2

chroot.2

getgid.2

getpid.2

getrusage.2

getsid.2

gettid.2

getuid.2

iopl.2

kill.2

personality.2

pivot_root.2

ptrace.2

sched_setparam.2

sched_setscheduler.2

sched_yield.2

seteuid.2

setgid.2

setpgid.2

setresuid.2

setreuid.2
setuid.2
unlink.2
wait.2
openpty.3
raise.3
setlogmask.3
sleep.3
ttyslot.3
ulimit.3
tty.4
tty_ioctl.4
path_resolution.7

mtk
s/current process/calling process/

cacheflush.2
clone.2
fcntl.2
getitimer.2
getrlimit.2
mmap.2
mprotect.2
times.2
adjtime.3
byteorder.3
inet.3
offsetof.3
rtc.4
icmp.7
pipe.7
time.7
mtk

s/x86/i386/ since that is the name used in 'arch' directories
in the kernel source, and previously both i386 and x86 were both
used in man pages; also nowadays 'x86' is somewhat ambiguous,
since it is the name of the 'arch' directory for i386 and x86-64.

conj.3
cacos.3
cacosh.3
cabs.3
carg.3
casin.3
casinh.3
catan.3
catanh.3
ccos.3

ccosh.3
cexp.3
cimag.3
clog.3
cosh.3
creal.3
csin.3
csinh.3
ctan.3
ctanh.3
sinh.3
tanh.3

mtk

Various reformattings.

Various pages

Alain Portal

Formatting fixes.

mlock.2

mprotect.2

mpool.3

offsetof.3

Alain Portal

Format SYNOPSIS in a manner consistent with other pages.

Various pages

mtk / Alain Portal

Format casts so that there is a non-breaking space after the type, and remove unnecessary parentheses around the casted value.

Thus, for example, the following:

```
.IR "(size_t) (\-1)" .
```

becomes:

```
.IR "(size_t)\ \-1" .
```

Various pages

mtk / Alain Portal

Replace "-" by "\-" where a real dash is required.

Various pages

mtk

Make the formatting of instances of '*varname' consistent, changing instances such as:

```
.RI * varname
```

to:

.I *varname

pciconfig_read.2
nfservctl.2
bstring.3
cpow.3
getipnodebyname.3
getpwnam.3
getrpercent.3
lsearch.3
malloc_hook.3
mpool.3
stdin.3
strtol.3
strtoul.3
unlocked_stdio.3
regex.3
sd.4
resolv.conf.5
utmp.5
futex.7
mtk

Format SYNOPSIS consistently.

drand48.3
drand48_r.3
flockfile.3
erf.3
sigvec.3
timeradd.3
wprintf.3

mtk, after a note by Alain Portal

Standardize sentence used under "Feature Test Macro Requirements"
when referring to all functions shown in the SYNOPSIS.

get_kernel_syms.2
getdents.2
getitimer.2
nanosleep.2
query_module.2
statvfs.2
clock_getres.3
getaddrinfo.3
getgrent.3
getipnodebyname.3

console_ioctl.4

tty_ioctl.4

rtnetlink.7

mtk

Indent structure definitions by +4n.

recv.2

btree.3

dbopen.3

ether_aton.3

fts.3

hash.3

mpool.3

profil.3

rcmd.3

recno.3

rpc.3

xdr.3

console_ioctl.4

ddp.7

ip.7

ipv6.7

svipc.7

mtk

Use C99 standard types in declarations.

s/u_long/unsigned long/

s/ulong/unsigned long/

s/u_char/unsigned char/

s/u_short/unsigned short/

s/ushort/unsigned short/

s/u_int8_t/uint8_t/

s/u_int16_t/uint16_t/

s/u_int32_t/uint32_t/

s/u_int/unsigned int/

exit_group.2

fallocate.2

getdents.2

ioctl_list.2

nfsservctl.2

sched_setaffinity.2

set_tid_address.2

ustat.2

argz_add.3

confstr.3

envz_add.3

getline.3

getpwnam.3

gets.3
getw.3
inet_ntop.3
inet_pton.3
offsetof.3
console_ioctl.4
termcap.5
ascii.7
feature_test_macros.7
netlink.7
operator.7
svipc.7
mtk
Fix unbalanced .nf/.fi pairs.

chmod.2
getxattr.2
listxattr.2
lseek.2
removexattr.2
setxattr.2
stat.2
feature_test_macros.7
fpathconf.3
fopen.3

mtk
Rename argument: s/file*des/fd/ , since that is the name most commonly used on man pages for a file descriptor argument.

bindresvport.3
des_crypt.3
getopt.3
getrpercent.3
realpath.3
rpc.3
xdr.3
mtk
Removed .SM macros.

madvise.2
getdirentries.3
printf.3
sigvec.3
mtk
Remove extraneous .br macro before/after .SH/.SS.

_syscall.2

lookup_dcookie.2
aio_cancel.3
aio_error.3
aio_fsync.3
aio_read.3
aio_return.3
aio_write.3
canonicalize_file_name.3
envz_add.3
getgrouplist.3
getttyent.3
key_setsecret.3
mtrace.3
tcgetpgrp.3
tcgetsid.3
ttslot.3
tty_ioctl.4
mtk

Remove extraneous .sp macros.

fcntl.2
outb.2
send.2
syscalls.2
getopt.3
proc.5
man-pages.7
standards.7
tcp.7
mtk

Remove/replace extraneous .sp macros.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

_syscall.2
mtk

Nowadays there are seven macros (see 2.74 change log also).

arch_prctl.2

mtk, Acked by Andi Kleen

Clarify interpretation of 'addr'; plus a few other minor edits
and updates.

bind.2

mtk

Minor rewrites.

close.2

mtk

Clarify relationship between file descriptor and open file description.

connect.2

mtk, Acked by Andi Kleen

Since kernel 2.2, AF_UNSPEC for unconnecting a connected socket **is** supported.

execve.2

Alain Portal

Minor rewordings.

futimesat.2

Alain Portal

Remove duplicate "#include <fcntl.h>" from SYNOPSIS.

getgid.2

mtk

Add getresgid(2) and credentials(7) to SEE ALSO.

getpagesize.2

mtk

Small rewording.

getresuid.2

mtk

Rewrote various parts.

getuid.2

mtk

Add getresuid(2) and credentials(7) to SEE ALSO.

ioctl_list.2

Alain Portal

Use proper tables for layout, and various formatting fixes.

mtk

Various formatting fixes.

listen.2

mtk

Rewrote various parts.

mbind.2

Andi Kleen / mtk / Alain Portal

Modify explanation of EINVAL 'maxnode' error.

mmap.2

mtk

Add comma to clarify meaning of a sentence.

open.2

mtk

Clarify initial description of O_EXCL.

Clarify description of behaviors of O_CREAT | O_EXCL
for symbolic links.

Clarify text describing use of lockfiles without O_EXCL.

mtk, with input from Timo Sirainen and Trond Myklebust

O_EXCL is supported on NFSv3 and later, with Linux 2.6 and later.

pipe.2

mtk

Rename 'filedes' argument 'pipefd'.

pivot_root.2

mtk

s/cwd/current working directory/

seteuid.2

mtk

Minor changes.

setpgid.2

mtk

Add credentials(7) to SEE ALSO, and updated copyright credits,
to reflect my rewrite of a few months ago.

setsid.2

mtk

Add getsid(2) and credentials(7) to SEE ALSO.

spu_create.2

Alain Portal / mtk; acked by Jeremy Kerr

Minor formatting/wording changes.

mtk

Put EPERM in right alphabetical position in ERRORS list.

argz_add.3

mtk

Formatting fixes.

atexit.3

mtk

Minor changes to example program.

cerf.3

mtk

These functions are still not present as at glibc 2.7.

dbopen.3

Alain Portal / mtk

Various minor spelling and formatting fixes.

envz_add.3

mtk

Formatting fixes.

fexecve.3

mtk

Fix placement of feature test macro in SYNOPSIS.

fmax.3

fmin.3

mtk

Small rewording.

getline.3

mtk

Minor changes to example program.

getrpercent.3

getrpcport.3

mtk

Use modern C prototypes in SYNOPSIS.

getutent.3

Alain Portal / mtk

Formatting fixes.

mbsnrtowcs.3

mbsrtowcs.3

mbstowcs.3

mtk

Use .IP tags to create properly formatted lists.

rpc.3

mtk

Convert function declarations to use modern C prototypes.

Add text and start of page describing header files

and types required by functions.

Reformat discussion of request under `clnt_control()`.

xdr.3

mtk

Convert function declarations to use modern C prototypes.

Remove crufty "int empty" from `xdrrec_eof()` description.

console_codes.4

Phil Endecott

Relocate misplaced line:

"and if LF/NL (new line mode) is set also a carriage return;"

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=458338>.

console_ioctl.4

mtk

Formatting fixes.

bootparam.7

mtk, after a note by Alan Portal

Fix reference to kernel documentation source file in the

"The Sound Driver" subsection.

man-pages.7

Alain Portal

Move CONFIGURATION description after SYNOPSIS description.

mtk / Alain Portal

Note that header files should be surrounded by angle brackets (`<>`).

posixoptions.7

mtk

Minor formatting and wording fixes.

rtnetlink.7

Andreas Henriksson

Fix description of `RTM_F_EQUALIZE`.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=458325>.

signal.7

mtk

Minor formatting and wording fixes.

socket.7

mtk

Small rewording of discussion of `O_ASYNC`.

spufs.7

mtk / Jeremy Kerr / Alain Portal

s/SPE/SPU/

===== Changes in man-pages-2.76 =====

Released: 2008-01-14

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Jeremy Kerr <jk@ozlabs.org>
Sam Varshavchik <mrsam@courier-mta.com>
Trond Myklebust <trond.myklebust@fys.uio.no>

Apologies if I missed anyone!

Global changes

longjmp.3
printf.3
scanf.3
setbuf.3
setjmp.3
sk98lin.4
environ.7
 mtk
 Rework/remove use of ".ad" macros.

ioctl_list.2
mlock.2
mprotect.2
mremap.2
syslog.2
cfree.3
mpool.3
offsetof.3
rpc.3
stdin.3
 mtk
 Fix unbalanced quotes in formatting macros.

ftok.3

mtk

s/i-node/inode/, for consistency with other pages and POSIX.1-2001.

Typographical or grammatical errors have been corrected in several places.

Changes to individual pages

chown.2

mtk

Minor wording change.

dup.2

mtk

Reordered text in DESCRIPTION and added some details for dup2().

open.2

Trond Myklebust / mtk

Minor fix to O_EXCL changes in previous release.

gettid.2

mtk

Rewrote DESCRIPTION; noted that thread ID is not the same thing as a POSIX thread ID.

pipe.2

mtk

Rewrote DESCRIPTION; minor additions to EXAMPLE text.

umask.2

mtk

A few rewrites and additions.

strptime.3

Carlo Marcelo Arenas Belon / mtk

Add "#define _XOPEN_SOURCE" to example program.

initrd.4

mtk

Use quotes more consistently in formatting macros.

random.4

mtk, after a report by Daniel Kahn Gilmor

Add 2.6 details for /proc/sys/kernel/random/poolsize.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=459232>.

pthread.7

mtk

Minor changes.

spufs.7

mtk / Jeremy Kerr

Define abbreviation "MSS".

==== Changes in man-pages-2.77 =====

Released: 2008-01-31

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Thomas Huriaux <thomas.huriaux@gmail.com>

Vincent Lefevre <vincent@vinc17.org>

WANG Cong <xiyou.wangcong@gmail.com>

Apologies if I missed anyone!

Global changes

stdarg.3

bootparam.7

Thomas Huriaux

Fix broken use of single quotes at start of line,

as per: <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=462636>

Typographical or grammatical errors have been corrected in several places.

New pages

remove_COLOPHON.sh

mtk

Script to remove the COLOPHON section from the man pages provided as command-line arguments. This is useful to remove the COLOPHON sections from all of the man pages in two different release trees

in order to do a "diff -ruN" to see the "real" differences between the trees.

Changes to individual pages

fcntl.2

mtk

Replace tables with .TP macros.

fork.2

mtk

Added discussion of directory streams.

Removed "#include <sys/types>" from SYNOPSIS.

Changed authorship notice.

futex.2

mtk

Add ENOSYS error to errors.

Phil Endecott

Explicitly describe return value in the event of an error.

inotify_add_watch.2

mtk

Minor wording changes.

splice.2

WANG Cong

Fix types for 2 and 4 arguments in splice prototype.

wait.2

Phil Endecott

Clarify description of return value for WNOHANG.

tkill.2

mtk

Rewrote DESCRIPTION; emphasized that tkill() is obsoleted by tkill().

alloca.3

mtk

Change description in NAME section.

Various rewrites and additions (including notes on longjmp() and SIGSEGV).

mtk / Vincent Lefevre

Weaken warning against use of alloca(), and point out some cases where it can be useful;

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=461100>.

bootparam.7

Pavel Heimlich

Remove junk line.

inotify.7

mtk

Replace tables with .TP macros.

s/MultiSource Synchronization/MultiSource Synchronization (MSS)/

===== Changes in man-pages-2.78 =====

Released: 2008-02-15

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Phil Endecott <phil_vonar_endecott@chezphil.org>

Apologies if I missed anyone!

Global changes

sigaction.2

signal.2

sigwaitinfo.2

signal.7

mtk

Add SEE ALSO entry referring to new signalfd.2 page.

Typographical or grammatical errors have been corrected in several places.

New pages

eventfd.2

mtk, with input and review from Davide Libenzi
Documents the eventfd() system call, new in 2.6.22.

signalfd.2

mtk, with input and review from Davide Libenzi
Documents the signalfd() system call, new in 2.6.22.

Changes to individual pages

futex.2

mtk / Phil Endecott
Improve wording describing error returns.

open.2

Greg Banks
Greatly expand the detail on O_DIRECT.

reboot.2

mtk / Michael Tokarev
Fix RETURN VALUE description: in some cases reboot() does not return.

mtk

Rename the 'flag' argument to 'cmd', since that is more meaningful, and also what is used in the kernel source.
Other minor wording changes.

===== Changes in man-pages-2.79 =====

Released: 2008-03-07

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Walter Harms <WHarms@bfs.de>

Apologies if I missed anyone!

Global changes

Typographical or grammatical errors have been corrected in several places.

New pages

timerfd_create.2

mtk, with input and review from Davide Libenzi
Documents the timerfd_create(), timerfd_settime(), and
timerfd_gettime() system calls, which are new in 2.6.25.

New links

timerfd_gettime.2

timerfd_settime.2

mtk
Links to new timerfd_create.2 page.

eventfd_read.3

eventfd_write.3

mtk
Links to eventfd.2.

Changes to individual pages

Makefile

aeb
Remove code relating to man1/README, which no longer exists.

execve.2

mtk
Clarify detail of RLIMIT_STACK/4 limit for argv+environ.

getitimer.2

mtk

Added SEE ALSO entry referring to timerfd_create.2.

getrusage.2

mtk

Minor rewordings.

open.2

Michael Haardt

Move discussion of 'mode' argument under description of O_CREAT.

signalfd.2

mtk

Fix type for 'ssi_ptr' field.

See <http://sources.redhat.com/ml/libc-hacker/2008-01/msg00002.html>.

syscalls.2

mtk

Add timerfd_create(), timerfd_settime(), and timerfd_gettime() to list.

syslog.2

Jeremy Kerr

Add info on command type 10.

Add details on types 6, 7, 8, and 9.

Minor grammar fix.

mtk

Update LOG_BUF_LEN details.

Update RETURN VALUE section.

Notes capability requirements under EPERM error.

Minor fix to description of type==3 and type==4.

Other minor edits.

ctime.3

Walter Harms

Note that POSIX requires localtime() to act as though tzset() was called, but localtime_r() does not have the same requirement.

See also <http://thread.gmane.org/gmane.comp.time.tz/2034/>

getaddrinfo.3

mtk

Clarify discussion of NULL 'hints' argument; other minor rewrites.

mtk / Sam Varshavchik

Remove some duplicated text.

malloc.3

Lasse Kärkkäinen / Mike Frysinger / mtk

Clarify description of realloc() behavior for
((size == 0) && (ptr != NULL)).

posix_fallocate.3

Samuel Thibault

s/stdlib.h/fcntl.h/ in SYNOPSIS.

proc.5

Fernando Luis Vázquez Cao

Update /proc/[number]/cmdline description.

It used to be true that the command line arguments were
not accessible when the process had been swapped out.

In ancient kernels (circa 2.0.*) the problem was that the
kernel relied on get_phys_addr to access the user space buffer,
which stopped working as soon as the process was swapped out.
Recent kernels use get_user_pages for the same purpose and thus
they should not have that limitation.

epoll.7

Davide Libenzi / mtk

Clarify the somewhat unintuitive behavior that occurs if a file
descriptor in an epoll set is closed while other file descriptors
referring to the same underlying open file description remain
open.

See also <http://thread.gmane.org/gmane.linux.kernel/596462/>.

mtk

Clarify error that occurs if we add an epoll fd to its own set.

mtk

A few minor rewordings.

mtk, after a note by Chris Heath

Rework Q1/A1, describing what happens when adding the same
file descriptor twice to an epoll set, and when adding duplicate
file descriptors to the same epoll set.

Heikki Orsila / mtk / Davide Libenzi

Clarify Q9/A9 to discuss packet/token-oriented files.

mtk, after comments by Davide Libenzi and Chris Heath

Added Q0/A0, making explicit that the key for items in an epoll
set is [file descriptor, open file description].

mtk, after a note by Ron Burk

Change A3, to note that when events are available,
the epoll file descriptor will indicate as being readable.

mtk

Add some further explanation to Q5/A5 about why an epoll file
descriptor cannot be passed across a Unix domain socket.

posixoptions.7

mtk

Add SEE ALSO entry for standards(7).

regex.7

mtk

Add grep(1) to SEE ALSO.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=348552>.

standards.7

mtk

Add SEE ALSO entry for posixoptions(7).

time.7

mtk

Added SEE ALSO entry referring to timerfd_create.2.

===== Changes in man-pages-2.80 =====

Released: 2008-06-05

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Tolga Dalman <tdalman@project-psi.org>

Apologies if I missed anyone!

Global changes

bdflush.2
inotify_add_watch.2
mprotect.2
sigprocmask.2
ctime.3
getusershell.3
setbuf.3
st.4
ip.7
packet.7

mtk

Replace "(il)legal" by "(not) permitted" or "(in)valid".

read.2
utime.2
filesystems.5
packet.7

mtk

s/time stamp/timestamp/, for consistency with majority use
in other pages, and in POSIX.1.

madvise.2
mbind.2
mincore.2
mmap.2
mmap2.2
msync.2
remap_file_pages.2

mtk

Change name of 'start' argument to 'addr' for consistency
with:

- * other memory-related interfaces
- * POSIX specification (for those interfaces in POSIX)

* Linux and glibc source code (in at least some cases)

Various pages

mtk

s/filesystem/file system/, for consistency with majority use
in other pages, and in POSIX.1.

Various pages

mtk

s/zeros/zeros/, for consistency with majority use
in other pages, and in POSIX.1.

abs.3

proc.5

mtk

s/builtin/built-in/, for consistency with majority use
in other pages, and in POSIX.1.

mknod.2

ftw.3

mtk

s/normal file/regular file/

Various pages

mtk

s/nonempty/non-empty/

Various pages

mtk

s/nonzero/non-zero/

Various pages

mtk

s/realtime/real-time/, for consistency with majority usage.

Various pages

mtk

s/command line/command-line/ when used attributively.

Various pages

mtk

Use "run time" when non-attributive, "run-time" when attributive.

Various pages

mtk

Various pages that I wrote carried a slightly modified version
of the "verbatim" license. In the interests of minimizing
license proliferation, I've reverted the modified form

so that the license is exactly the same as on other pages
carrying the verbatim license.

epoll_ctl.2

getitimer.2

getrlimit.2

unix.7

mtk

s/since kernel x.y.z/since Linux x.y.z/

wait.2

inotify.7

mtk

Reformat kernel version information for flags.

Typographical or grammatical errors have been corrected in several places.
(Special thanks to Nicolas François.)

New pages

random_r.3

mtk, after a suggestion by aeb

Documents [random_r\(3\)](#), [srandom_r\(3\)](#), [initstate_r\(3\)](#), and
[setstate_r\(3\)](#), which are the reentrant equivalents of
[random\(3\)](#), [srandom\(3\)](#), [initstate\(3\)](#), and [setstate\(3\)](#).

New links

lutimes.3

mtk

Link to [futimes.3](#).

[initstate_r.3](#)

[setstate_r.3](#)

[srandom_r.3](#)

mtk

Links to [random_r.3](#).

[daylight.3](#)

[timezone.3](#)

[tzname.3](#)

mtk

Links to [tzset.3](#).

isnanf.3

isnanl.3

mtk

Links to finite.3.

encrypt_r.3

setkey_r.3

mtk

Links to encrypt.3.

Changes to individual pages

clone.2

mtk

Added note that CLONE_STOPPED (which no-one uses anyway) is now deprecated.

epoll_create.2

mtk

Add NOTES section pointing out that 'size' argument is unused since kernel 2.6.8.

epoll_ctl.2

mtk

Added portability note to BUGS text for EPOLL_CTL_DEL.

epoll_wait.2

mtk

If the 'sigmask' is NULL, then epoll_pwait() is equivalent to epoll_wait().

fork.2

mtk

NOTES: since glibc 2.3.3, the glibc NPTL fork() wrapper bypasses the fork() system call to invoke clone() with flags providing equivalent functionality.

futex.2

mtk, after a note from Adrian Bunk

FUTEX_FD has been removed, as of kernel 2.6.26.

futimesat.2

mtk

Note that this system call is made obsolete by utimensat(2).

getgroups.2

Petter Reinholdtsen

SEE ALSO: Add getgrouplist(3).

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=479284>.

mtk

NGROUPS_MAX increased in kernel 2.6.4.

SEE ALSO: Add credentials(7).

mtk

Reformat DESCRIPTION and RETURN VALUE sections to be more consistent with man-pages style.

Add some more detail to descriptions of system calls.

Clarified what happens if caller of getgroups() is a member of more than 'size' supplementary groups.

ERRORS: Add ENOMEM.

getpriority.2

mtk, after a note from Ingo Molnar

Add text in NOTES about the punchier effect of nice values in kernel 2.6.23 and later.

Add Documentation/scheduler/sched-nice-design.txt to SEE ALSO list.

gettid.2

mtk

Added VERSIONS section noting that this system call first appeared in 2.4.11.

kill.2

Marty Leisner / mtk

Add text explicitly noting that sig==0 can be used to check for the existence of a PID or PGID.

mtk

A few minor rewordings.

mbind.2

mtk

The location of the numactl package has changed.

mmap.2

mtk

Added some .SS headings to make structure of page a little more obvious.

mtk, with input from Nick Piggin

MAP_POPULATE supports both file and anonymous mappings.

Since 2.6.23, MAP_POPULATE supports private mappings.

Since 2.6.23, MAP_NONBLOCK causes MAP_POPULATE to be a no-op.

mtk

NOTES: Added details on mapping address that is selected by kernel when MAP_FIXED is / isn't specified.

mount.2

mtk

The MS_REMOUNT changes in 2.4 were at 2.4.10 (not 2.4).

mtk

Minor wording change.

msgctl.2

mtk

Clarify that "unused" fields in msginfo structure are "unused within the kernel".

msginfo.msgpool is measured in kilobytes, not bytes.

Minor rewordings in comments for msginfo structure.

msgop.2

mtk

Various minor rewordings and restructurings for clarity.

mtk, after a note from Reuben Thomas

Remove "msgop" from NAME section.

mkdir.2

mtk

Clarify meaning of "BSD group semantics".

SEE ALSO: add chown(2).

mknod.2

mtk

SEE ALSO: add chown(2) and chmod(2).

mmap.2

mtk

SEE ALSO: add mprotect(2) and shmat(2).

mprotect.2

Hamaji Shinichiro

SYNOPSIS: s/size_t *len/size_t len/

open.2

mtk

Note that O_CLOEXEC should be in the next POSIX.1 revision.

mtk

More than just ext2 supports "mount -o bsdgroups" nowadays, so make the discussion about group ownership of new files a bit more generic.

mtk

SEE ALSO: add chown(2) and chmod(2).

poll.2

mtk

If the 'sigmask' is NULL, then ppoll() is equivalent to poll() with respect to signal mask manipulations.

posix_fadvise.2

mtk

s/posix_madvise (2)/posix_madvise (3)/;

(The referred-to page still doesn't exist yet, but hopefully will do sometime soon.)

ptrace.2

Anoop, Acked by Roland McGrath.

Re PTRACE_PEEKUSER: the offsets and data returned might not match with the definition of struct user.

See also <http://lkml.org/lkml/2008/5/8/375>

recv.2

Felix Kater / mtk

Improve wording for EAGAIN error in discussion of MSG_DONTWAIT.

rmdir.2

Martin Pitt

POSIX.1 also allows EEXIST for the ENOTEMPTY error condition.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=467552>.

sched_setscheduler.2

mtk, with input from Ingo Molnar

Add description of SCHED_IDLE policy (new in 2.6.23).

Tweak description of SCHED_BATCH.

Minor rewordings.

select_tut.2

Justin Pryzby

Various wording clean-ups.

semctl.2

mtk

Clarify that "unused" fields in seminfo structure are

"unused within the kernel".

Minor rewordings in comments for seminfo structure.

semop.2

Aurelien Gerome

Small fix in example code.

setpgid.2

mtk / Karsten Weiss

Clarify description of setpgid() a little.

shmctl.2

mtk

Clarify that "unused" fields in shminfo structure are "unused within the kernel".

Minor rewordings in comments for shminfo structure.

shmop.2

mtk, after a note from Reuben Thomas

Remove "shmop" from NAME section.

signalfd.2

mtk

Added BUGS text noting that before kernel 2.6.25, the ssi_int and ssi_ptr fields are not set.

Added comments describing fields in signalfd_siginfo structure.

Update field names in example program (s/signo/ssi_signo/).

Various small fixes, and remove duplicated sentence.

Minor edits to structure definition.

sigqueue.2

mtk

Added some comments to code in NOTES.

stat.2

mtk

Minor wording change.

symlink.2

mtk

SEE ALSO: add lchown(2).

sync_file_range.2

mtk / Andrew Morton

Remove statement that (SYNC_FILE_RANGE_WAIT_BEFORE | SYNC_FILE_RANGE_WRITE | SYNC_FILE_RANGE_WAIT_AFTER) is a traditional fdatsync(2) operation.

See https://bugzilla.mozilla.org/show_bug.cgi?id=421482 comments 129 to 131.

syscalls.2

mtk

This page is now up to date as at kernel 2.6.25.

syslog.2

mtk

Small tidy up of language relating to permissions/capabilities.

timerfd_create.2

mtk

Minor change to example program.

Minor wording change.

utime.2

Reuben Thomas

Remove unnecessary subheading for utimes().

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=477402>.

mtk

Change description in NAME line ("or" is not correct: these calls always change *both* timestamps).

CONFORMING TO: utimes() is in POSIX.1-2001.

mtk

Rename 'buf' argument of utime() to 'times' (like utimes()).

Clarify explanation of EACCES and EPERM errors.

Remove BUGS section, since it doesn't seem to add useful information.

Clarified discussion of capabilities, and noted that

CAP_DAC_OVERRIDE also has a role.

Other minor rewordings.

wait.2

mtk, after a note by Justin Pryzby

Add a sentence clarifying that even though the default disposition of SIGCHLD is "ignore", explicitly setting the disposition to SIG_IGN results in different treatment of zombies.

aio_cancel.3

aio_error.3

aio_fsync.3

aio_read.3

aio_return.3

aio_suspend.3

aio_write.3

Kevin O'Gorman <kogorman@csc.calpoly.edu>

Add "Link with -lrt" to SYNOPSIS.

backtrace.3

Nicolas François

s/backtrace_symbols/backtrace_symbols_fd/ in one sentence.

mtk

Fix bogus reference to variable 'strings': should be:

"the array of pointers".

ctime.3

mtk

Add warning under NOTES that asctime(), ctime(), gmtime(), and localtime() may each overwrite the static object returned by any

of the other calls.
Other minor edits.

dlopen.3

mtk

Add more detail to the description of the fields in the structure returned by dladdr().

fexecve.3

mtk

Clean up SYNOPSIS after work by cut-and-paste-Pete:
the necessary header file is <unistd.h> not <sys/time.h>!

futimes.3

mtk

Add documentation of lutimes(), which appeared in glibc 2.6.

mtk

Change description in NAME line ("or" is not correct: these calls always change *both* timestamps).

CONFORMING TO: futimes() did not come from 4.2BSD. (It came from FreeBSD; see the FreeBSD man page.)

getenv.3

mtk

Noted that caller must not modify returned value string.
Noted that getenv() is not reentrant: the buffer may be statically allocated and overwritten by later calls to getenv(), putenv(), setenv(), or unsetenv().
Other minor rewrites.

getgrent.3

Petter Reinholdtsen

SEE ALSO: Add getgrouplist(3).
as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=479284>.

gethostbyname.3

mtk

Add 'h_errno' to NAME list.

getopt.3

mtk

Add 'optarg', 'optind', 'opterr', and 'optopt' to NAME section.
Add subheading for getopt_long() and getopt_long_only() description.

getpt.3

mtk

Point out that this function should be avoided in favor of

posix_openpt().
Add ERRORS section referring to open(2).

getsubopt.3

Daniel Burr

SYNOPSIS: Fix declaration of valuep.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=476672>.

malloc.3

mtk

RETURN VALUE: Note circumstances in which successful malloc() and calloc() can return NULL.

mq_open.3

mtk, after a note by Marty Leisner

Note that <fcntl.h> is needed for O_* constants and <sys/stat.h> is needed for 'mode' constants.

opendir.3

mtk

Describe treatment of close-on-exec flag by opendir() and fdopendir().

openpty.3

mtk

SEE ALSO: add ttyname(3).

raise.3

mtk / Timothy Baldwin

Clarify semantics of raise() when called from a multithreaded program.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=476484>.

mtk

Rewrites and additions to various parts of the page.

rand.3

Tolga Dalman / aeb / mtk

Remove outdated warning in NOTES; encourage the use of random(3) instead.

Folkert van Heusden

Clarify wording describing range of values returned by rand().

random.3

aeb / mtk / Tolga Dalman

Recommend use of random_r(3) for multithreaded applications that need independent, reproducible sequences of random numbers.

Move references to "The Art of Computer Programming" and

"Numerical Recipes", formerly in rand(3), to this page.

Add drand48(93) to SEE ALSO list.

regex.3

Heikki Orsila

Clarify description of 'rm_eo' field.

sem_open.3

mtk, after a note by Marty Leisner

Note that <fcntl.h> is needed for O_* constants and <sys/stat.h> is needed for 'mode' constants.

sem_post.3

mtk

Added pointer to example in sem_wait(3).

sem_close.3

sem_destroy.3

sem_getvalue.3

sem_init.3

sem_open.3

sem_post.3

sem_unlink.3

sem_wait.3

mtk, after a note from Marty Leisner

Add text to SYNOPSIS noting the need to link with "-lrt" or "-pthread".

setenv.3

mtk

setenv() copies 'name' and 'value' (contrast with putenv()).

unsetenv() of a nonexistent variable does nothing and is considered successful.

Noted that setenv() and unsetenv() need not be reentrant.

shm_open.3

mtk, after a note by Marty Leisner

Note that <fcntl.h> is needed for O_* constants and <sys/stat.h> is needed for 'mode' constants.

undocumented.3

mtk

initstate_r(3), setkey_r(3), setstate_r(3) are now documented.

utmp.5

Nicolas François

Small rewording.

resolv.conf.5

Nicolas François

gethostname() is in Section 2, not section 3.

ascii.7

Stuart Brady

Fix rendering of ' (backtick) and apostrophe (') in tables

charsets.7

Nicolas François

[s/unicode.com/unicode.org/](https://unicode.com/unicode.org/)

credentials.7

mtk

NOTES: Pthreads requires that all threads share the same UIDs and GIDs. But the Linux kernel maintains separate UIDs and GIDs for every thread. NPTL does some work to ensure that credential changes by any thread are carried through to all POSIX threads in a process.

mtk

sysconf(_SC_NGROUPS_MAX) can be used to determine the number of supplementary groups that a process may belong to.

Clarify that supplementary group IDs are specified in POSIX.1-2001.

epoll.7

mtk, after a note from Sam Varshavchik

For answer A2, change "not recommended" to "careful programming may be required".

inotify.7

mtk

Document SIGIO feature (new in 2.6.25) for inotify file descriptors.

mtk

Note that select()/poll()/epoll_wait() indicate a ready inotify file descriptor as readable.

mtk

Document IN_ATTRIB in a little more detail.

pthread.7

Justin Pryzby

Grammar fix, plus fix typo in script.

mtk

Add list of thread-safe functions.

standards.7

mtk

Add a section on the upcoming POSIX revision.

ld.so.8

Justin Pryzby / mtk

Various wording improvements.

===== Changes in man-pages-3.00 =====

Released: 2008-06-12, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

Andries Brouwer <Andries.Brouwer@cwi.nl>

Stuart Brady <sdb Brady@ntlworld.com>

Apologies if I missed anyone!

Global changes

The POSIX.1 man pages (sections 0p, 1p, 3p) have been moved out of this package into the separate man-pages-posix package.

This made sense because those pages are seldom changed (only formatting fixes, etc.) so that it was unnecessary to redistribute them with each man-pages release.

console_codes.4

random.4

dir_colors.5

proc.5

glob.7

Stuart Brady

s/^`/ for backquotes used in command substitution, for proper rendering in UTF-8.

Various pages

mtk, after a note from Stuart Brady

Using `'x'` to denote a character (string) renders poorly in UTF-8, where the two `'` characters render as closing single quotes. On the other hand, using `^x^` renders nicely on UTF-8, where proper opening and closing single quotes are produced by

groff(1), but looks ugly when rendered in ASCII. Using the sequence `^\aqx\aq/` produces a reasonable rendering ("`\aq'` is a vertical "apostrophe quote") in both UTF-8 and ASCII. So that change is made in a number of pages. See also <http://www.cl.cal.ac.uk/~mgk25/ucs/quotes.html>.

Various pages

mtk

Replace form `^string'/` by `/"string"/`, since the former renders poorly in ASCII.

termios.3

console_codes.4

tty_ioctl.4

termcap.5

charsets.7

mtk

Control character names (`^X`) are written boldface, without quotes.

printf.3

scanf.3

proc.5

glob.7

regex.7

mtk

Various edits to try and bring some consistency to the use of quotes.

Changes to individual pages

tty_ioctl.4

mtk

Small rewordings in description of packet mode.

locale.7

mtk

Minor formatting fixes.

===== Changes in man-pages-3.01 =====

Released: 2008-06-25, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

acct.5

mtk

A complete rewrite of this page, now with much more detail.

hostname.7

mtk

A description of hostname resolution. Taken from FreeBSD 6.2,

and lightly edited for man-pages style.

symlink.7

mtk

A description of symbolic links. Taken from FreeBSD 6.2, but heavily edited for Linux details, improved readability, and man-pages style.

Newly documented interfaces in existing pages

getrlimit.2

mtk / Peter Zijlstra

Add description of RLIMIT_RTTIME limit, new in 2.6.25.

mkstemp.3

mtk

Add description of mkostemp(), new in glibc 2.7.

core.5

mtk, after a note by Petr Gajdos; review by Neil Horman

Document core_pattern pipe syntax, which appeared in kernel 2.6.19.

Add an example program demonstrating use of core_pattern pipe syntax.

mtk

Document /proc/PID/coredump_filter, new in kernel 2.6.23.

Documentation was based on the text in

Documentation/filesystems/proc.txt, plus testing, and checking the kernel source.

proc.5

mtk

Document /proc/PID/oom_score, which was new in kernel 2.6.11.

This file displays the "badness" score of the process, which provides the basis for OOM-killer decisions.

mtk

Document /proc/PID/oom_adj, which was new in kernel 2.6.11.

This file influences the oom_score of a process.

mtk

Document /proc/PID/limits, which was new in 2.6.24.

This file displays a process's resource limits.

mtk

Document /proc/PID/fdinfo/*, which was new in 2.6.22.

These files display info about each descriptor opened by the process: the current file offset, and the file access mode + file status flags as set in open() or fcntl(F_SETFL).

mtk

Document /proc/PID/mountinfo, which was new in 2.6.26.

This file displays information about mount points.

Closely based on text from Documentation/filesystems/proc.txt.

mtk

Document /proc/PID/mountstats, which was new in 2.6.17.

This file displays statistics about mount points.

mtk

Document /proc/PID/status.

Samuel Thibault / mtk, review by Laurent Vivier,

Christian Borntraeger, and Andrew P

Document guest (virtual CPU) time field in /proc/stat.

Document guest (virtual CPU) time fields in /proc/PID/stat.

New links

mkostemp.3

mtk

Link to mkstemp.3.

getcwd.2

mtk

Link to getcwd.3, which describes several interfaces, among them getcwd(), which is in fact a system call.

Global changes

sched_setaffinity.2

sched_setscheduler.2

set_mempolicy.2

mbind.2

mtk

SEE ALSO: Add cpuset(7).

chown.2

faccessat.2

fchmodat.2

fchownat.2

fstatat.2

getxattr.2

link.2

linkat.2

listxattr.2

open.2

readlink.2
removexattr.2
rename.2
setxattr.2
stat.2
symlink.2
symlinkat.2
unlink.2
futimes.3
remove.3
path_resolution.7

mtk

SEE ALSO: Add symlink(7).

intro.1
time.1
fcntl.2
gethostbyname.3
ioctl_list.2

mtk

Wrap source lines so that new sentence starts on new line.

addseverity.3
backtrace.3
dlopen.3
fmtmsg.3
getnameinfo.3
getpt.3
grantpt.3
makecontext.3
ptsname.3
tcgetsid.3
unlockpt.3
wordexp.3

mtk

Added VERSIONS section.

msgctl.2
msgget.2
semget.2
semop.2
pciconfig_read.2
basename.3
cmsg.3
ftok.3
console_ioctl.4
tzfile.5
mq_overview.7

pty.7

mtk

For consistency, "fix" cases where argument of .B or .I was on the following source line.

adjtimex.2

getrusage.2

io_getevents.2

poll.2

select.2

semop.2

sigwaitinfo.2

aio_suspend.3

clock_getres.3

mq_receive.3

mq_send.3

sem_wait.3

proc.5

mtk

SEE ALSO: add time(7)

Typographical or grammatical errors have been corrected in several places.
(Special thanks to Nicolas François and Alain Portal.)

Changes to individual pages

acct.2

mtk

Add a few more words to DESCRIPTION.

NOTES: Add pointer to acct(5).

alarm.2

Alain Portal

s/process/calling process/ so as to say that the alarm signal is delivered to the calling process.

brk.2

Yao Zhao / mtk

Clarify discussion of return value of sbrk().

mtk

DESCRIPTION: Add some sentences giving an overview of these interfaces.

Add note recommending use of malloc(3).

Change name of brk() argument to the simpler 'addr'.

Add "(void *)" cast to "-1" for error return of sbrk().

Removed some incorrect text about "brk(0)".

Note that SUSv2 specified the return value of sbrk().
Added a detail on the glibc brk() wrapper.
Remove discussions of old standards (C89 and POSIX.1-1990);
CONFORMING TO already discusses the situation with respect
to more recent standards.

chmod.2

mtk

Clarify description of chmod() and fchmod().
Add further detail on S_ISUID, S_ISGID, and S_ISVTX permissions.
Reformat list of permissions bits.

chown.2

mtk

Describe rules governing ownership of new files (bsdgroups
versus sysvgroups, and the effect of the parent directory's
set-group-ID permission bit).

chroot.2

Alain Portal

Clarify description a little.
s/changes the root directory/
changes the root directory of the calling process/

execve.2

mtk

Fix text that warns against use of NULL argv and envp.
Using a NULL envp does in fact seem to be portable (works
on Solaris and FreeBSD), but the Linux semantics for a NULL
argv certainly aren't consistent with other implementations.
See http://bugzilla.kernel.org/show_bug.cgi?id=8408.

getdents.2

mtk, after a note from George Spelvin

Document d_type field, present since kernel 2.6.4.
Other minor edits.

getitimer.2

mtk

Noted that POSIX.1 leaves interactions with alarm(), sleep(),
and usleep() unspecified.
Linux 2.6.16 removed the MAX_SEC_IN_JIFFIES ceiling on timer
values.
Other minor changes.

io_cancel.2

io_destroy.2

io_getevents.2

io_setup.2

io_submit.2

mtk, after a note by Masatake YAMOTO and input from Jeff Moyer

Describe the unconventional error return provided by the wrapper function in libaio (and contrast with behavior if the system call is invoked via syscall(2)).

See <http://thread.gmane.org/gmane.linux.ltp/4445/>

Alain Portal / mtk

Re-order ERRORS and SEE ALSO entries to be alphabetical.

io_getevents.2

Alain Portal

Small wording fix.

io_submit.2

Jeff Moyer

s/AIO request blocks/AIO control blocks/

mknod.2

mtk

Note that EEXIST applies, even if the pathname is a (possibly dangling) symbolic link.

nanosleep.2

mtk, after a report from Stephane Chazelas

Remove crufty discussion of HZ, and replace with a pointer to time(7).

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=485636>

mtk, after some discussions with Bart Van Assche and Roman Zippel

NOTES: describe CLOCK_REALTIME versus CLOCK_NANOSLEEP

See also <http://thread.gmane.org/gmane.linux.kernel/696854/>

"nanosleep() uses CLOCK_MONOTONIC, should be CLOCK_REALTIME?"

mtk

Replace mentions of "process" by "thread".

NOTES: describe case where clock_nanosleep() can be preferable.

Some minor rewrites.

open.2

mtk, after a note from Christoph Hellwig

NOTES: Note that access mode flags are not single bits, and document the Linuxism "access mode 3".

See also <http://thread.gmane.org/gmane.linux.kernel/653123>.

readdir.2

mtk

Minor wording fixes.

recv.2

Alain Portal

Add comment to 'ee_pad' field in structure definition.

sched_setscheduler.2

mtk

Add pointer to discussion of RLIMIT_RTTIME in getrlimit.2.

mtk, after a note by Andrew Clayton

Rewrote and restructured various parts of the page for greater clarity.

mtk

Add more detail to the rules that are applied when an unprivileged process with a non-zero RLIMIT_RTPRIO limit changes policy and priority.

SEE ALSO: Add Documentation/scheduler/sched-rt-group.txt

sync_file_range.2

Pavel Machek

SYNC_FILE_RANGE_WRITE can block on writes greater than request queue size. For some background, see

<http://thread.gmane.org/gmane.linux.kernel/687713/focus=688340>

syscalls.2

mtk

Added system call history back to version 1.2.

Fix typo on kernel version for pivot_root().

syslog.2

WANG Cong

Document ENOSYS error, which can occur if kernel was built without CONFIG_PRINTK.

utime.2

Nicolas François

Clarify description of 'times' array for utimes().

adjtime.3

mtk

The longstanding bug that if delta was NULL, olddelta didn't return the outstanding clock adjustment, is now fixed (since glibc 2.8 + kernel 2.6.26).

http://sourceware.org/bugzilla/show_bug?id=2449

http://bugzilla.kernel.org/show_bug.cgi?id=6761

dprintf.3

mtk

Note that these functions are included in the next POSIX revision.

Remove editorial discussion about what the functions should have been named.

ftime.3

mtk

Rewrote various pieces, and added some details.

getaddrinfo.3

mtk

Improve description of 'hints' and 'res' arguments.

Add details on numeric strings that can be specified for 'node'.

Other fairly major restructurings and rewrites to improve logical structure and clarity of the page.

SEE ALSO: Add hostname(7).

gethostbyname.3

mtk

DESCRIPTION: Add reference to inet_addr(3) for dotted notation.

SEE ALSO: add inet(3).

mtk

Added BUGS section noting that gethostbyname() does not recognize hexadecimal components in dotted address strings;

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=482973>

getmntent.3

mtk, after Stuart Cunningham pointed out the typo

Remove statement that LSB deprecates the functions

"endmntent(), setmntent() [sic] and setmntent()".

This doesn't seem to be true (I can't find mention of it being deprecated in any of the LSB specs). Rather, LSB simply doesn't specify these functions. (LSB 1.3 had a spec of setmntent(), but not getmntent() or endmntent(), and noted that having a spec of setmntent() was of little use without also having a spec of getmntent().)

See also <https://lists.linux-foundation.org/pipermail/lsb-discuss/2006-October/003078.html>

getnameinfo.3

Tolga Dalman

Remove mention of sa_len field from example code.

That field is a BSDism not present on Linux.

mtk

Various minor changes.

inet.3

mtk / Stephane Chazelas

inet_aton() is **not** in POSIX.1.

Rewrote discussion of why inet_addr() is disfavored.

SEE ALSO: Add getaddrinfo(3).

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=482979>.

mtk, after a note by Stephane Chazelas

Describe the various address forms supported by `inet_aton()`.

mtk

Rewrite description of `inet_network()`.

Clarify discussion of `inet_lnaof()`, `inet_netof()`, and `inet_makeaddr()`.

Add discussion of Classful Addressing, noting that it is obsolete.

Added an EXAMPLE program.

mtk

Relocate discussion of i386 byte order to NOTES.

Note that `inet_aton()` returns an address in network byte order.

SEE ALSO: Add `byteorder(3)` and `getnameinfo(3)`.

`inet_ntop.3`

mtk

Remove unneeded header files from SYNOPSIS.

SEE ALSO: Add `inet(3)` and `getnameinfo(3)`.

Make NAME line more precise.

Move errors to an ERRORS section.

Add EXAMPLE section pointing to `inet_pton(3)`.

`inet_pton.3`

mtk / Stephane Chazelas

Remove statement that `inet_pton()` extends `inet_ntoa()`;

that's not really true, since `inet_pton()` doesn't support all of the string forms that are supported by `inet_ntoa()`.

SEE ALSO: Add `getaddrinfo(3)`.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=482987>.

mtk

Describe IPv6 address formats.

Describe dotted decimal format in more detail.

Add an example program.

mtk

Remove unneeded header files from SYNOPSIS.

Make NAME line more precise.

Make description of return value more precise.

SEE ALSO: Add `inet(3)`.

`mkfifo.3`

mtk

Note that `EEXIST` applies, even if the pathname is a (possibly dangling) symbolic link.

`mkstemp.3`

mtk

Fix discussion of `O_EXCL` flag.

These functions may also fail for any of the errors described in `open(2)`.

Various other rewordings.

readdir.3

mtk

Document DT_LNK (symbolic link) for d_type field.
Reorder DT_ entries alphabetically.

remainder.3

mtk

Recommend against drem(), in favor of remainder().

scanf.3

mtk, after a note from Stephane Chazelas

Add an ERRORS section documenting at least some of the errors that may occur for scanf().

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=487254>.

mtk, after a note from Stephane Chazelas; review by Stephane Chazelas

Document the GNU 'a' modifier for dynamically allocating strings.

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=487254>.

Document the GNU 'm' modifier for dynamically allocating strings.

strcat.3

Andreas Herrmann

s/strcat/strncat/ (a typo that changed the semantics in DESCRIPTION).

strerror.3

mtk, after a note from Daniele Giacomini

Modify SYNOPSIS to show prototypes of both versions of strerror_r(), and make other small clarifications of the description regarding the two versions.

random.4

George Spelvin (taking time out from his busy Broadway schedule), with some tweaks by Matt Mackall and mtk

Add a Usage subsection that recommends most users to use /dev/urandom, and emphasizes parsimonious usage of /dev/random.

locale.5

Petr Baudis <pasky@suse.cz>

LC_TIME: Describe first_weekday and first_workday.

proc.5

mtk

The various CPU time fields in /proc/stat and /proc/PID/stat return time in clock ticks (USER_HZ, cputime_to_clock_t(), sysconf(_SC_CLK_TCK)).

Updated, clarified and expanded the description several fields in /proc/[number]/stat.

mtk

Clarified and expanded the description of /proc/[number]/fd.

mtk

Updated and clarified the description of /proc/[number]/statm.

mtk

Updated and clarified the description of /proc/sys/fs/dentry-state.

mtk

Many formatting, wording, and grammar fixes.

man-pages.7

mtk

Enhanced description of VERSIONS section.

mq_overview.7

mtk

Note that Linux does not currently support ACLs for POSIX message queues.

sem_overview.7

mtk

Note that Linux supports ACLs on POSIX named semaphores since 2.6.19.

time.7

mtk, with some suggestions from Bart Van Assche and Thomas Gleixner

Added some details about where jiffies come into play.

Added section on high-resolution timers.

Mentioned a few other time-related interfaces at various points in the page.

See <http://thread.gmane.org/gmane.linux.kernel/697378>.

unix.7

mtk, after a note by Samuel Thibault

Provide a clear description of the three types of address that can appear in the sockaddr_un structure: pathname, unnamed, and abstract.

==== Changes in man-pages-3.02 =====

Released: 2008-07-02, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Stephane Chazelas <stephane_chazelas@yahoo.fr>
WANG Cong <xiyou.wangcong@gmail.com>

Apologies if I missed anyone!

New and rewritten pages

clock_nanosleep.2

mtk

A description of the clock_nanosleep() system call,
which was added in kernel 2.6.

getgrouplist.3

mtk

A near complete rewrite, including additional information and
a new example program.

getutmp.3

mtk

Documents getutmp(3) and getutmpx(3).

gnu_get_libc_version.3

mtk

Documents gnu_get_libc_version(3) and gnu_get_libc_release(3).

sigwait.3

mtk

Documents sigwait(3).

shm_overview.7

mtk

An overview of the POSIX shared memory API.

Newly documented interfaces in existing pages

updwtmp.3

mtk

Document updwtmpx(3).

New links

getutmpx.3

mtk

Link to getutmp.3.

gnu_get_libc_release.3

mtk

Link to gnu_get_libc_version.3

updwtmpx.3

mtk

Link to updwtmp.3

utmpxname.3

mtk

Link to getutent.3.

utmpx.5

mtk

Link to utmp.5.

Global changes

Various pages

mtk

s/user name/username/

Various pages

mtk

s/host name/hostname/

Changes to individual pages

fchmodat.2

Alain Portal

SEE ALSO: add symlink.7. (3.01 changelog wrongly said this had been done.)

io_setup.2

Alain Portal

Remove superfluous text from RETURN VALUE.

mmap.2

mtk

SEE ALSO: Add mmap(2), shm_overview(7).

shmget.2

shmop.2

mtk

SEE ALSO: add shm_overview(7).

sigreturn.2

mtk

Added a bit more detail on what sigreturn() actually does.

signalfd.2

sigsuspend.2

mtk

SEE ALSO: Add sigwait(3).

sigwaitinfo.2

mtk

Describe behavior when multiple threads are blocked in sigwaitinfo()/sigtimedwait().

SEE ALSO: Add sigwait(3).

dirfd.3

mtk

RETURN VALUE: describe return value on success.

Add an ERRORS section documenting POSIX.1-specified errors.

getaddrinfo.3

mtk, after a note by Stephane Chazelas

getaddrinfo() supports specifying IPv6 scope-IDs.

getlogin.3

mtk

ERRORS: add ENOTTY.

SEE ALSO: add utmp(5).

getutent.3

WANG Cong

utmpname() does return a value.

mtk

Add paragraph to start of DESCRIPTION recommending use of POSIX.1 "utmpx" functions.

CONFORMING TO: mention utmpxname().

Add an ERRORS section.

There are no utmpx equivalents of the _r reentrant functions.

Clarify discussion of return values.
Add pointer to definition of utmp structure in utmp(5).
Clarify discussion of utmpx file on other systems (versus Linux situation).

getutent.3

mtk

SEE ALSO: add getutmp(3)

inet_pton.3

Stephane Chazelas

Fix error in description of IPv6 presentation format:
s/x.x.x.x.x.x.x/x:x:x:x:x:x/x/.

setbuf.3

Reuben Thomas / mtk

Fix confused wording for return value of setvbuf().
Fixes <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=488104>.

mtk

Other minor rewordings.

shm_open.3

mtk

SEE ALSO: add shm_overview(7).

random.4

mtk, after a note by Alain Portal

Slight rewording to make life easier for non-native English speakers.

utmp.5

mtk

Add discussion of POSIX.1 utmpx specification.
Provide a little more detail on fields of utmp structure.
Added comments to macros for ut_type field.
Correct the description of the ut_id field.

mtk

Consolidate duplicated information about ut_tv and ut_session on biarch platforms.

mtk

Move some text from CONFORMING TO to NOTES.
Removed some crufty text.
SEE ALSO: add login(3), logout(3), logwtmp(3).
UT_LINESIZE is 32 (not 12).

mtk

SEE ALSO: add getutmp(3)

man-pages.7

mtk

Enhanced the discussion of font conventions.

signal.7

mtk

Note that the delivery order of multiple pending standard signals is unspecified.

SEE ALSO: Add sigwait(3).

===== Changes in man-pages-3.03 =====

Released: 2008-07-08, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Li Zefan <lizf@cn.fujitsu.com>

Paul Jackson <pj@sgi.com>

Sam Varshavchik <mrsam@courier-mta.com>

Apologies if I missed anyone!

New and rewritten pages

getcpu.2

Andi Kleen, with some text and edits by mtk

Documents the getcpu(2) system call, introduced in Linux 2.6.19.

sched_getcpu.3

mtk

Documents sched_getcpu(3), a wrapper for getcpu(2), provided since glibc 2.6.

cpuset.7

Paul Jackson, with review and editing by mtk, and comments by Hidetoshi Seto and Li Zefan

A description of the cpuset file system, the mechanism introduced kernel 2.6.12 for confining processes to designated processors

and nodes. (Becomes the fourth largest page in man-pages!)

Newly documented interfaces in existing pages

readdir.3

mtk

Add documentation of readdir_r().

New links

updwtmpx.3

Alain Portal

Link to updwtmp.3 (3.02 changelog wrongly said this had been done).

readdir_r.3

mtk

Link to readdir.3.

Global changes

get_mempolicy.2

mbind.2

sched_setaffinity.2

set_mempolicy.2

mtk

SEE ALSO: Add getcpu(2).

accept.2

close.2

connect.2

dup.2

epoll_wait.2

fcntl.2

flock.2

futex.2

msgop.2

poll.2

read.2

recv.2

select.2

semop.2

send.2

sigwaitinfo.2

spu_run.2

wait.2

write.2

aio_suspend.3

mq_receive.3

mq_send.3

scanf.3

sem_wait.3

usleep.3

inotify.7

mtk

ERRORS: Added reference to signal(7) in discussion of EINTR.

Various pages

mtk

Wrapped very long source lines.

Changes to individual pages

accept.2

mtk

Small wording change.

io_getevents.2

mtk

ERRORS: Add EINTR error.

open.2

mtk

ERRORS: Add EINTR error.

sigaction.2

mtk

Note circumstances in which each SA_* flag is meaningful.

mtk

Describe POSIX specification, and Linux semantics for SA_NOCLDWAIT when establishing a handler for SIGCHLD.

mtk

Add pointer under SA_RESTART to new text in signal(7) describing system call restarting.

mtk

Other minor edits.

truncate.2

mtk

ERRORS: Added EINTR error.

A few minor rewordings.

wait.2

mtk

Remove statement that WUNTRACED and WCONTINUED only have effect if SA_NOCLDSTOP has not been set for SIGCHLD. That's not true.

errno.3

mtk

Add a pointer to signal(7) for further explanation of EINTR.

getgrouplist.3

mtk

SEE ALSO: Add passwd(5).

readdir.3

mtk

Remove <sys/types.h> from SYNOPSIS; POSIX.1-2001 does not require it.

Some minor rewordings.

sleep.3

mtk

RETURN VALUE: explicitly mention interruption by signal handler.

SEE ALSO: add signal(7).

usleep.3

mtk

POSIX.1-2001 also only documents EINVAL.

group.5

mtk

SEE ALSO: Add getgrent(3), getgrnam(3).

passwd.5

mtk

SEE ALSO: Add getpwent(3), getpwnam(3).

proc.5

mtk

Add pointer to description of /proc/PID/cpuset in cpuset(7).

signal.7

mtk

Add a section describing system call restarting, and noting which system calls are affected by SA_RESTART, and which system calls are never restarted.

mtk

Describe the aberrant Linux behavior whereby a stop signal plus SIGCONT can interrupt some system calls, even if no signal handler has been established, and note the system calls that behave this way.

mtk

Note a few more architectures on which signal numbers are valid.
SEE ALSO: added a number of pages.

mtk

Update async-signal-safe function list for POSIX.1-2004 (which adds sockatmark()).

==== Changes in man-pages-3.04 =====

Released: 2008-07-15, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Vincent Lefevre <vincent@vinc17.org>

Apologies if I missed anyone!

Web site

licenses.html

mtk

A page describing the preferred licenses for new pages that are contributed to man-pages.

New and rewritten pages

utimensat.2

mtk

New page documenting the utimensat() system call, new in 2.6.22, and futimens() library function.

end.3

mtk

Documents etext, edata, and end symbols.

Newly documented interfaces in existing pages

memchr.3

mtk

Add description of rawmemchr().

proc.5

mtk

Document /proc/config.gz (new in kernel 2.6).

mtk, based on text from Documentation/vm/sysctl.txt

Document /proc/sys/vm/oom_kill_allocating_task (new in Linux 2.6.24).

Document /proc/sys/vm/oom_dump_tasks (new in Linux 2.6.25).

Document /proc/sys/vm/panic_on_oom (new in Linux 2.6.18).

New links

edata.3

etext.3

mtk

Links to end.3.

futimens.3

mtk

Link to new utimensat.2.

getdate_err.3

mtk

Link to getdate.3.

h_errno.3

mtk

Link to gethostbyname.3.

optarg.3

opterr.3

optind.3

optopt.3

mtk

Links to getopt.3.

rawmemchr.3

mtk

Link to memchr.3.

sys_errlist.3

sys_nerr.3

mtk

Links to perror.3.

Global changes

Various pages

mtk

s/parameter/argument/ when talking about the things given
to a function call, for consistency with majority usage.

Various pages

mtk

s/UNIX/Unix/, when not used as part of a trademark,
for consistency with majority usage in pages.

Various pages

mtk, after a note from Alain Portal

Put SEE ALSO entries into alphabetical order.

Various pages

mtk

Remove period at end of SEE ALSO list.

Various pages

mtk, after a note by Alain Portal

Even when the CONFORMING TO section is just a list of standards,
they should be terminated by a period.

getpriority.2

MB_LEN_MAX.3

MB_CUR_MAX.3

fwide.3

mblen.3

rtime.3

st.4

proc.5

bootparam.7

man-pages.7

utf-8.7

tcp.5

mtk / Alain Portal

Small wording fixes -- express \leq , $<$, \geq , $>$ in words when in running text.

sched_setparam.2

sched_setscheduler.2

getgrent_r.3

hash.3

mtk

Minor rewording w.r.t. use of the term "parameter".

Typographical or grammatical errors have been corrected in several other places. (Many, many thanks to Alain Portal!)

Changes to individual pages

capget.2

Andrew Morgan

Update in line with addition of file capabilities and 64-bit capability sets in kernel 2.6.2[45].

clock_nanosleep.2

mtk

Add "Link with -lrt" to SYNOPSIS.

getrusage.2

Sripathi Kodi

Document RUSAGE_THREAD, new in 2.6.26.

mtk

Improve description of RUSAGE_CHILDREN.

Add pointer to /proc/PID/stat in proc(5).

Other minor clean-ups.

ioprio_set.2

Nikanth Karthikesan

Since Linux 2.6.25, CAP_SYS_ADMIN is longer required to set a low priority (IOPRIO_CLASS_IDLE).

mount.2

mtk

Since Linux 2.6.26, MS_RDONLY honors bind mounts.

openat.2

mtk

SEE ALSO: add utimensat(3).

prctl.2

Serge Hallyn, with some edits/input from mtk

Document PR_CAPBSET_READ and PR_CAPBSET_DROP.

Erik Bosman

Document PR_GET_TSC and PR_SET_TSC.

mtk, reviewed by Andrea Arcangeli

Document PR_SET_SECCOMP and PR_GET_SECCOMP.

mtk

PR_SET_KEEPCAPS and PR_GET_KEEPCAPS operate on a per-thread setting, not a per-process setting.

mtk

Clarify fork(2) details for PR_SET_PDEATHSIG.

mtk

Add description of PR_SET_SECUREBITS and PR_GET_SECUREBITS, as well as pointer to further info in capabilities(7).

mtk

PR_GET_ENDIAN returns endianness info in location pointed to by arg2 (not as function result, as was implied by previous text).

mtk

Expand description of PR_SET_NAME and PR_GET_NAME.

mtk

RETURN VALUE: bring up to date for various options.

mtk

Various improvements in ERRORS.

mtk

Note that PR_SET_TIMING setting of PR_TIMING_TIMESTAMP is not currently implemented.

mtk

Minor changes:

- * Clarify wording for PR_GET_UNALIGN, PR_GET_FPEMU, and PR_GET_FPEXC.

- * Some reformatting of kernel version information.

- * Reorder PR_GET_ENDIAN and PR_SET_ENDIAN entries.

readlinkat.2

John Brooks / mtk

Fix and reword erroneous RETURN VALUE text.

recv.2

mtk

Noted which flags appeared in Linux 2.2.

sched_setaffinity.2

mtk, after a Fedora downstream patch

Update type used for cpusetsize argument in SYNOPSIS.

select.2

Andreas Mohr / mtk

Clarify "zero timeout" case.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=490868>.

send.2

mtk

Noted which flags appeared in Linux 2.2.

sigaction.2

mtk

Document si_omax and si_tid fields of siginfo structure.

Add some text for si_trapno field.

The si_errno field is *generally* unused.

mtk

Put descriptions of SA_* constants in alphabetical order.

signal.2

mtk

Rewrote and expanded portability discussion.

NOTES: Show the raw prototype of signal() (without use of sighandler_t).

signalfd.2

mtk

Modify description of ssi_trapno field.

swapon.2

mtk

Fix two version number typos for MAX_SWAPFILES discussion:

s/2.6.10/2.4.10/

utime.2

mtk

SEE ALSO: add utimensat(2), futimens(3).

dl_iterate_phdr.3

Alain Portal

SEE ALSO: Add elf(5).

crypt.3

mtk, after a Fedora downstream patch

Describe additional encryption algorithms.

See also: https://bugzilla.redhat.com/show_bug.cgi?id=428280.

errno.3

mtk

Small rewrites in DESCRIPTION.

exec.3

mtk, after a note from Alain Portal

Small rewording.

exp10.3

Alain Portal

SEE ALSO: Add log10(3).

exp2.3

Alain Portal

Add C99 to CONFORMING TO.

fgetgrent.3

Alain Portal

Add references to group(5).

mtk

Minor rewordings.

SEE ALSO: add fopen(3).

fgetpwent.3

Alain Portal

Add reference to passwd(5).

mtk

Minor rewordings.

SEE ALSO: add fopen(3).

frexp.3

Alain Portal

Add C99 to CONFORMING TO.

futimes.3

mtk

SEE ALSO: remove futimesat(2); add utimensat(2).

getopt.3

mtk

Add details on initial value of `optind`, and note that it can be reset (to 1) to restart scanning of an argument vector.

Add a NOTES section describing the glibc-specific behavior when `optind` is reset to 0 (rather than 1).

See http://groups.google.com/group/comp.unix.programmer/browse_thread/thread/be0d0b7a07a165fb

mtk

Note glibc extensions under CONFORMING TO.

`getspnam.3`

mtk

Improve comments on struct `spwd`.

`getpw.3`

Alain Portal

RETURN VALUE: note that `errno` is set on error.

mtk

Add `EINVAL` error.

`insque.3`

mtk / Alain Portal

Minor rewordings.

`log.3`

Alain Portal

Remove unnecessary sentence in ERRORS.

`log10.3`

mtk

SEE ALSO: Add `exp10(3)`.

`offsetof.3`

Alain Portal

Small wording improvement.

`pow.3`

Alain Portal

Remove unnecessary sentence in ERRORS.

`printf.3`

mtk / Alain Portal

Many small formatting fixes.

`proc.5`

mtk

Remove redundant summary list of files in description of `/proc/sys/kernel`.

Make kernel version for `/proc/sys/kernel/panic_on_oops` more precise.

Make kernel version for `/proc/sys/kernel/pid_max` more precise.

Add Documentation/sysctl/vm.txt to SEE ALSO.

Other minor edits.

profil.3

mtk / Alain Portal

Small wording improvement.

rtime.3

mtk, after a note by Alain Portal

Clarify meaning of midnight on 1 Jan 1900/1970.

mtk

Remove netdate(1) and rdate(1) from SEE ALSO, since these pages don't seem to exist on Linux systems.

scanf.3

Vincent Lefevre / mtk

Clarify treatment of initial white space by %% conversion specification.

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=435648>.

mtk

Many small formatting fixes.

stdin.3

Alain Portal

Rename CONSIDERATIONS section to NOTES, and relocate to appropriate place on page.

tmpfile.3

mtk, after a note by Alain Portal

Prepend "POSIX.1-2001 specifies that: " to the sentence stating that tmpfile() may write to stdout. (AFAICS, glibc's tmpfile() does not do this.)

ttyname.3

Alain Portal

Remove unnecessary sentence in ERRORS.

wcsdup.3

Alain Portal

Make wording more precise: the memory allocated by wcsdup(3) *should* be freed with free(3).

wordexp.3

Alain Portal / mtk

Move example into proper EXAMPLE section.

tty_ioctl.4

mtk / Petr Gajdos

The features in the "Get and Set Window Size" subsection require the inclusion of `<sys/ioctl.h>`.

capabilities.7

Serge Hallyn, plus a bit of work by mtk

Document file capabilities, per-process capability bounding set, changed semantics for `CAP_SETPCAP`, and other changes in 2.6.2[45]. Add `CAP_MAC_ADMIN`, `CAP_MAC_OVERRIDE`, `CAP_SETFCAP`. Various smaller fixes.

mtk, plus review by Serge Hallyn and Andrew Morgan

Add text detailing how `CAP_SETPCAP` (theoretically) permits -- on pre-2.6.25 kernels, and 2.6.25 and later kernels with file capabilities disabled -- a thread to change the capability sets of another thread.

Add section describing rules for programmatically adjusting thread capability sets.

Add some words describing purpose of inheritable set.

Note existence of `CONFIG_SECURITY_CAPABILITIES` config option.

Describe rationale for capability bounding set.

Document `securebits` flags (new in 2.6.26).

Remove obsolete `BUGS` section.

SEE ALSO: Add `getcap(8)`, `setcap(8)`, and various `libcap` pages.

mtk

Add text noting that if we set the effective flag for one file capability, then we must also set the effective flag for all other capabilities where the permitted or inheritable bit is set.

mtk

Since Linux 2.6.25, `CAP_SYS_ADMIN` is no longer required for `ioprio_set()` to set `IOPRIO_CLASS_IDLE` class.

mtk

Reword discussion of `CAP_LINUX_IMMUTABLE` to be file-system neutral.

man-pages.7

mtk

A list of standards in the `CONFORMING TO` list should be terminated by a period.

The list of pages in a `SEE ALSO` list should not be terminated by a period.

tcp.7

mtk

Correct a detail for `sysctl_tcp_adv_win_scale`.

Formatting fixes.

==== Changes in man-pages-3.05 =====

Released: 2008-07-23, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

matherr.3

mtk, with review by Andries Brouwer

A description of the SVID-specified mechanism for reporting math exceptions.

See <http://thread.gmane.org/gmane.linux.man/266>.

math_error.7

mtk, with review and suggested input from Andries Brouwer

A description of how math functions report errors.

See <http://thread.gmane.org/gmane.linux.man/249>.

Global changes

Various pages

mtk

s/floating point/floating-point/ when used attributively.

Various pages

mtk

For consistency with majority usage:

s/plus infinity/positive infinity/

s/minus infinity/negative infinity/

Typographical or grammatical errors have been corrected in several

other places.

Changes to individual pages

brk.2

mtk

SEE ALSO: add end(3).

open.2

Brian M. Carlson / mtk

Remove ambiguity in description of support for O_EXCL on NFS.

As per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=491791>.

prctl.2

mtk

Place options in some semblance of alphabetical order.

(No content or formatting changes were made.)

cerf.3

mtk

Bump version number: these functions are still missing in glibc 2.8.

fenv.3

mtk

SEE ALSO: Add math_error(7).

INFINITY.3

mtk

SEE ALSO: Add math_error(7).

nan.3

mtk

Remove unneeded "Compile with" piece in SYNOPSIS.

SEE ALSO: Add math_error(7).

rpc.3

mtk / Franck Jousseume

Fix errors introduced into a few prototypes when converting

function declarations to use modern C prototypes in man-pages-2.75.

ipv6.7

mtk, after a report from Uli Schlacter

Document the IPV6_V6ONLY flag.

Released: 2008-08-05, Konolfingen

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

erfc.3

mtk

Created after removing the erfc() material from erf.3.
Documents the complementary error function.

y0.3

mtk

Created after removing the y*() material from j0.3.
Documents the Bessel functions of the second kind.
Included ERRORS section; noted that an exception is not raised on underflow, see also
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6806;
and errno is not set on overflow, see also
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6808;
Included BUGS section noting that errno is incorrectly set for pole error; see also
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6807.

scalbln.3

mtk

Created after removing the scalbln*() and scalbn*() material from scalb.3. Documents scalbln() and scalbn() functions.
Included ERRORS section; noted that errno is not set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6803.

New and changed links

erfcf.3

erfcl.3

mtk

Changed these links to point to new erfc.3 page.

scalblnf.3

scalblnl.3

scalbn.3

scalbnf.3

scalbnl.3

mtk

Changed these links to point to new scalbln.3 page.

y0f.3

y0l.3

y1.3

y1f.3

y1l.3

yn.3

ynf.3

ynl.3

mtk

Changed these links to point to new y0.3 page.

Global changes

Various pages

mtk

s/floating point/floating-point/ when used attributively.

Typographical or grammatical errors have been corrected in several other places.

Changes to individual pages

crypt.3

mtk

Tweak discuss text describing support for Blowfish.

ctime.3

mtk / Gernot Tenchio

Added some words to make clear that the string returned by
ctime() and asctime() is null-terminated.

math_error.7

Sam Varshavchik

Reverse order of SYNOPSIS and NAME sections.

mtk

NOTES: Summarize the state of glibc support for exceptions
and errno for error reporting.

Changes to individual pages (math functions)

Almost all of the changes in this release relate to math man pages.

Very many changes were made to the math pages, including:

- * Fixed feature test macros (FTMs). Often, the FTM requirements for the "float" and "long double" versions of a math function are different from the requirements for the "double" version. Each math page now shows the correct FTM requirements for all three versions of the function(s) it describes. This may have required either a change to the existing FTM text (if the requirements for the "double" function were already described), or the addition of an FTM description to a SYNOPSIS where one was not previously present (typically because the "double" version of the function does not require any FTMs to be defined).
- * CONFORMING TO: in many cases, POSIX.1-2001 was not mentioned. Where a function is specified in POSIX.1-2001, this is now noted. Also, statements about what other standards a function conforms to were generally clarified. (The wording about which functions conformed to C99 was previously often done as an add on sentence; now it is made part of the first sentence of the CONFORMING TO section, along with POSIX.1-2001.)
- * RETURN VALUE: in many cases, pages lacked descriptions of the return value when the function arguments are special values such as +0, -0, NaN (not-a-number), +infinity, -infinity, etc. This has been fixed. I carried out tests on glibc 2.8 to ensure that all of these functions match the RETURN VALUE descriptions (and the POSIX.1-2001 requirements).
- * ERRORS: many pages lacked a clear (or indeed any) description of how errno is set on error and what exception is raised for each error. This has been fixed. The ERRORS sections are now generally headed up as per the POSIX.1 way of doing things, describing Pole / Range / Domain errors, as applicable. I carried out tests on glibc 2.8 to ensure that all of these

functions match the ERRORS descriptions. Deviations from POSIX.1-2001 requirements have been filed as glibc bug reports, and noted in the man pages. (The pages now describe the situation for ERRORS as at glibc 2.8; I may eventually try and extend the text with descriptions of changes in older versions of glibc.)

NOTE: one point that has not been covered in any page is the circumstances that generate inexact (FE_INEXACT) exceptions. (The details for these exceptions are not specified in POSIX.1-2001, and I haven't gone looking for the standards that describe the details.)

acos.3

mtk

SYNOPSIS: Added feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section.

Updated CONFORMING TO.

acosh.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

asin.3

mtk

SYNOPSIS: Added feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section.

Updated CONFORMING TO.

asinh.3

mtk

SYNOPSIS: Added feature test macro requirements.

DESCRIPTION: Some rewording.

RETURN VALUE: Added details for special argument cases.

Added (null) ERRORS section.

Updated CONFORMING TO.

atan.3

mtk

SYNOPSIS: Added feature test macro requirements.

DESCRIPTION: Some rewording.

RETURN VALUE: Added details for special argument cases.

Added (null) ERRORS section.

Updated CONFORMING TO.

atan2.3

mtk

SYNOPSIS: Added feature test macro requirements.

DESCRIPTION: Some rewording.

RETURN VALUE: Added details for special argument cases.

Added (null) ERRORS section.

Updated CONFORMING TO.

atanh.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

Added BUGS section noting that pole error sets errno to EDOM,
when it should be ERANGE instead; see also

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6759.

cbirt.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

Added RETURN VALUE section.

Added (null) ERRORS section.

Updated CONFORMING TO.

ceil.3

mtk

SYNOPSIS: Added feature test macro requirements.

DESCRIPTION: Enhanced.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section.

Updated CONFORMING TO.

NOTES: Added some details.

copysign.3

mtk

Added RETURN VALUE section.

Updated CONFORMING TO.

cos.3

mtk

SYNOPSIS: Added feature test macro requirements.

Rewrote RETURN VALUE section.

Added ERRORS section; noted errno is not set:

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6780.

Updated CONFORMING TO.

cosh.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section.
Updated CONFORMING TO.

erf.3

mtk

Removed the erfc() material (there is now a new erfc page).
Reason: the functions are logically separate; also their return values differ, and it would have been confusing to document them on the same page.
SYNOPSIS: Fixed feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set; see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6785.
Updated CONFORMING TO.

exp.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set; see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6786.
Updated CONFORMING TO.

exp10.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set for underflow; see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6787.

exp2.3

mtk

Added RETURN VALUE and ERRORS sections.
Updated CONFORMING TO.

expm1.3

mtk

SYNOPSIS: Fixed feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set for overflow; see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6788.
Updated CONFORMING TO.
Added BUGS section, describing bogus underflow exception for -large, see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6778; and describing bogus invalid exception for certain +large, see http://sources.redhat.com/bugzilla/show_bug.cgi?id=6814.

fabs.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Updated CONFORMING TO.

fdim.3

mtk

SYNOPSIS: Added feature test macro requirements.
DESCRIPTION: Some rewording.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set; see
also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6796.
Updated CONFORMING TO.

fenv.3

mtk

Make style of writing exception names consistent with other
pages and POSIX.1-2001.
Updated CONFORMING TO.

finite.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

floor.3

mtk

SYNOPSIS: Added feature test macro requirements.
DESCRIPTION: Enhanced.
RETURN VALUE: Added details for special argument cases.
Rewrote ERRORS section.
Updated CONFORMING TO.

fma.3

mtk

SYNOPSIS: Added feature test macro requirements.
DESCRIPTION: Some rewording.
Added RETURN VALUE section.
Added ERRORS section; noted that errno is not set; see
also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6801.
Updated CONFORMING TO.

fmax.3

fmin.3

mtk

NAME: Make description clearer
SYNOPSIS: Added feature test macro requirements.

SYNOPSIS: Remove unneeded "Compile with" piece.

CONFORMING TO: Added POSIX.1-2001.

Added RETURN VALUE and ERRORS sections.

fmod.3

mtk

SYNOPSIS: Added feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section; noted that errno is not always set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6783.

Updated CONFORMING TO.

fpclassify.3

mtk

Minor wording changes.

CONFORMING TO: Added POSIX.1-2001.

SEE ALSO: Add signbit(3).

frexp.3

mtk

SYNOPSIS: Added feature test macro requirements.

Added details to RETURN VALUE section.

Added (null) ERRORS section.

CONFORMING TO: Added POSIX.1-2001.

gamma.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

Added (null) RETURN VALUE section referring to tgamma(3).

Added (null) ERRORS section referring to tgamma(3).

CONFORMING TO: Rewrote.

hypot.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

DESCRIPTION: note that calculation is done without causing undue overflow or underflow.

Added RETURN VALUE section.

Added ERRORS section; noted that errno is not always set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6795.

Updated CONFORMING TO.

ilogb.3

mtk

SYNOPSIS: Added feature test macro requirements.

Rewrote RETURN VALUE section.

Rewrote ERRORS section; noted that errno is not set, and in some cases an exception is not raised; see also

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6794.

CONFORMING TO: Added POSIX.1-2001.

isgreater.3

mtk

NAME: Make description clearer

Improve the description of isunordered().

Added RETURN VALUE and ERRORS sections.

Formatting fixes.

A few wording improvements.

j0.3

mtk

Removed material for the y*() functions to a separate y0.3 page.

Reason: the return values and errors/exceptions differ, and it would have been confusing to document them on the same page.

Added RETURN VALUE section.

Added ERRORS section; noted that errno is not set; see

also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6805.

ldexp.3

mtk

SYNOPSIS: Added feature test macro requirements.

Added RETURN VALUE and ERRORS sections.

Updated CONFORMING TO.

lgamma.3

mtk

Note that these functions are deprecated.

SYNOPSIS: Fixed feature test macro requirements.

Added RETURN VALUE and ERRORS sections referring to lgamma(3).

Added BUGS section noting that pole error sets errno to EDOM, when it should be ERANGE instead; see also

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6777.

log.3

mtk

SYNOPSIS: Added feature test macro requirements.

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

log10.3

mtk

SYNOPSIS: Added feature test macro requirements.

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

log1p.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

Added RETURN VALUE section.

Added ERRORS section; noted that errno is not set; see

also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6792.

Updated CONFORMING TO.

log2.3

mtk

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

logb.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

DESCRIPTION: added a little detail; some rewordings.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section; noted that errno is not set; see

also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6793.

CONFORMING TO: Added POSIX.1-2001.

lrint.3

mtk

DESCRIPTION: some rewording.

RETURN VALUE: Added details for special argument cases.

Added ERRORS section; noted that errno is not set; see

also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6798.

CONFORMING TO: Added POSIX.1-2001.

lround.3

mtk

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section; noted that errno is not set; see

also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6797.

CONFORMING TO: Added POSIX.1-2001.

modf.3

mtk

SYNOPSIS: Added feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Added (null) ERRORS section.

CONFORMING TO: Added POSIX.1-2001.

nan.3

mtk

Small wording changes.

CONFORMING TO: Added POSIX.1-2001.

nextafter.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Added ERRORS section; noted that errno is not set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6799.

CONFORMING TO: Added POSIX.1-2001.

pow.3

mtk

SYNOPSIS: Added feature test macro requirements.

Added RETURN VALUE section.

Rewrote ERRORS section.

Updated CONFORMING TO.

Added BUGS section noting that pole error sets errno to EDOM, when it should be ERANGE instead; see also

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6776.

remainder.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

DESCRIPTION: added some details.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section; noted that errno is not always set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6783.

Updated CONFORMING TO.

Added BUGS section noting that remainder(nan(""), 0) wrongly causes a domain error; see

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6779

remquo.3

mtk

Added RETURN VALUE section.

Added ERRORS section; noted that errno is not set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6801.

Updated CONFORMING TO.

fmax.3

fmin.3

mtk

NAME: Make description clearer

SYNOPSIS: Added feature test macro requirements.

SYNOPSIS: Remove unneeded "Compile with" piece.

CONFORMING TO: Added POSIX.1-2001.

Added RETURN VALUE and ERRORS sections.

fmod.3

mtk

SYNOPSIS: Added feature test macro requirements.

RETURN VALUE: Added details for special argument cases.

Rewrote ERRORS section; noted that errno is not always set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6783.

Updated CONFORMING TO.

fpclassify.3

CONFORMING TO: Added POSIX.1-2001.

rint.3

mtk

SYNOPSIS: Fixed feature test macro requirements.

DESCRIPTION: added some details.

RETURN VALUE: Added details for special argument cases.

ERRORS: no errors can occur (previous text was misleading).

CONFORMING TO: Added POSIX.1-2001.

NOTES: point out that lrint() may be preferred in some cases.

round.3

mtk

DESCRIPTION: added some details.

RETURN VALUE: Added details for special argument cases.

ERRORS: no errors can occur (previous text was misleading).

CONFORMING TO: Added POSIX.1-2001.

NOTES: point out that lround() may be preferred in some cases.

scalb.3

mtk

Removed the scalbn() and scalbln() material to a separate scalbln.3 page. Reason: scalb() is obsolete; also the exception/error conditions differ somewhat, so that it would have been confusing to document them on the same page.

SYNOPSIS: Fixed feature test macro requirements.

DESCRIPTION: some rewrites and added details.

Added RETURN VALUE section.

Added ERRORS section; noted that errno is not set; see also http://sources.redhat.com/bugzilla/show_bug.cgi?id=6803 and http://sources.redhat.com/bugzilla/show_bug.cgi?id=6804.

CONFORMING TO: Rewrote.

signbit.3

mtk

SYNOPSIS: Added feature test macro requirements.

SYNOPSIS: Remove unneeded "Compile with" piece.

Added RETURN VALUE section.

Added (null) ERRORS section.
CONFORMING TO: Added POSIX.1-2001.

sin.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section; noted errno is not set:
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6781.
Updated CONFORMING TO.

sincos.3

mtk

DESCRIPTION: Added details for special argument cases.
Added (null) RETURN VALUE section.
Added ERRORS section.

sinh.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section.
Updated CONFORMING TO.

sqrt.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Rewrote ERRORS section.
Updated CONFORMING TO.

tan.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added ERRORS section.
Added ERRORS section; noted errno is not set:
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6782.
Updated CONFORMING TO.

tanh.3

mtk

SYNOPSIS: Added feature test macro requirements.
Added RETURN VALUE section.
Added (null) ERRORS section.
Updated CONFORMING TO.

tgamma.3

mtk

Added RETURN VALUE section.

Rewrote ERRORS section; noted that errno is not set /
incorrectly set in some cases; see also

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6809

and http://sources.redhat.com/bugzilla/show_bug.cgi?id=6810.

CONFORMING TO: Added POSIX.1-2001.

Added NOTES section to hold text explaining origin of tgamma().

trunc.3

mtk

RETURN VALUE: small rewording.

CONFORMING TO: Added POSIX.1-2001.

Added NOTES section explaining that result may be too large
to store in an integer type.

===== Changes in man-pages-3.07 =====

Released: 2008-08-12, Konolfingen

Contributors

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been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

move_pages.2

Christoph Lameter, various edits and improvements by mtk

Documentation of the move_pages() system call.

This page was formerly part of the numactl package, but really belongs in man-pages (since it describes a kernel interface).

clock_getcpuclockid.3

mtk

New page documenting the clock_getcpuclockid() library function, available since glibc 2.2.

udplite.7

Gerrit Renker

Document the Linux implementation of the UDP-Lite protocol, new in Linux 2.6.20.

Newly documented interfaces in existing pages

proc.5

Christoph Lameter, minor edits and improvements by mtk

Documentation of the /proc/PID/numa_maps file.

This material was formerly the numa_maps.5 page in the numactl package, but really belongs in man-pages (since it describes a kernel interface).

Global changes

nanosleep.2

inet_ntop.3

inet_pton.3

scanf.3

initrd.4

mtk

Fix mis-ordered (.SH) sections.

connect.2

socket.2

rtnetlink.3

arp.7

ddp.7
ip.7
ipv6.7
netlink.7
packet.7
raw.7
rtnetlink.7
socket.7
tcp.7
udp.7
unix.7
x25.7
mtk

s/PF_/AF_/ for socket family constants. Reasons: the AF_ and PF_ constants have always had the same values; there never has been a protocol family that had more than one address family, and POSIX.1-2001 only specifies the AF_* constants.

Typographical or grammatical errors have been corrected in several other places.

Changes to individual pages

execve.2

mtk

The floating-point environment is reset to the default during an execve().

get_mempolicy.2

Lee Schermerhorn

Misc cleanup of get_mempolicy(2):

+ mention that any mode flags will be saved with mode.

I don't bother to document mode flags here because we already have a pointer to set_mempolicy(2) for more info on memory policy. mode flags are discussed there.

+ remove some old, obsolete [IMO] NOTES and 'roff comments.

Lee Schermerhorn

Update the get_mempolicy(2) man page to add in the description of the MPOL_F_MEMS_ALLOWED flag, added in 2.6.23.

mtk

Document additional EINVAL error that occurs is MPOL_F_MEMS_ALLOWED is specified with either MPOL_F_ADDR or MPOL_F_NODE.

getitimer.2

mtk

CONFORMING TO: POSIX.1-2008 marks getitimer() and setitimer()

obsolete.

mbind.2

Lee Schermerhorn

Fix error conditions, now that the kernel silently ignores nodes outside the task's cpuset, as long as one valid node remains.

Now that cpuset man page exists, we can refer to it. Remove stale comment regarding lack thereof.

Lee Schermerhorn

Add brief discussion of mode flags.

Lee Schermerhorn

Attempt to clarify discussion of MPOL_DEFAULT.

mtk

Fix URI reference for libnuma.

mprotect.2

mtk / Maxin John

Remove EFAULT from errors. Under ENOMEM error, note that EFAULT was the error produced in some cases for kernels before 2.4.19.

msgctl.2

mtk, after a note from Filippo Santovito

In the ipc_perm structure definition, some fields were incorrectly named: s/key/__key/ and s/seq/__seq/.

set_mempolicy.2

Lee Schermerhorn

Fix up the error return for nodemask containing nodes disallowed by the process' current cpuset. Disallowed nodes are now silently ignored, as long as the nodemask contains at least one node that is on-line, allowed by the process' cpuset and has memory.

Now that we have a cpuset man page, we can refer to cpusets directly in the man page text.

Lee Schermerhorn

Another attempt to rationalize description of MPOL_DEFAULT.

Since ~2.6.25, the system default memory policy is "local allocation". MPOL_DEFAULT itself is a request to remove any non-default policy and "fall back" to the surrounding context. Try to say that without delving into implementation details.

Lee Schermerhorn

Add discussion of mempolicy mode flags to set_mempolicy(2).

This adds another reason for EINVAL.

setpgid.2

mtk

CONFORMING TO: POSIX.1-2008 marks setpgrp() obsolete.

semctl.2

mtk, after a note from Filippo Santovito

In the ipc_perm structure definition, some fields were incorrectly named: s/key/__key/ and s/seq/__seq/.

shmctl.2

Filippo Santovito / mtk

In the ipc_perm structure definition, some fields were incorrectly named: s/key/__key/ and s/seq/__seq/.

utime.2

mtk

CONFORMING TO: POSIX.1-2008 marks utime() obsolete.

CONFORMING TO: POSIX.1-2008 removes the POSIX.1-2001 LEGACY marking of utimes(), so mention of this point has been removed from the page.

vfork.2

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of vfork().

atan2.3

Fabian Kreutz

SEE ALSO Add carg(3).

bcmp.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of bcmp().

bsd_signal.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of bsd_signal().

bzero.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of bzero().

cexp2.3

mtk

AVAILABILITY: These functions are still not in glibc as at version 2.8.

clock_getres.3

mtk

SEE ALSO: Add clock_getcpuclockid(3).

clog2.3

mtk

AVAILABILITY: These functions are still not in glibc as at version 2.8.

ctime.3

mtk

POSIX.1-2008 marks asctime(), asctime_r(), ctime(), and ctime_r() as obsolete.

dprintf.3

mtk

CONFORMING TO: These functions are nowadays in POSIX.1-2008.

ecvt.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specifications of ecvt() and fcvt().

ftime.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of ftime().

ftw.3

mtk

CONFORMING TO: POSIX.1-2008 marks ftw() as obsolete.

gcvt.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of gcvt().

getcwd.3

Reuben Thomas / mtk

Clarify description of getcwd() for buf==NULL case;

CONFORMING TO: According to POSIX.1, the behavior of getcwd() is unspecified for the buf==NULL case.

mtk

Add an introductory paragraph giving an overview of what these functions do.

Fix error in description of getwd(): it does not truncate the pathname; rather, it gives an error if the pathname exceeds PATH_MAX bytes.

Rewrote RETURN VALUE section.

Add EINVAL ENAMETOOLONG errors for getwd().

Various other clarifications and wording fixes.

CONFORMING TO: POSIX.1-2001 does not define any errors for getwd().

CONFORMING TO: POSIX.1-2008 removes the specification of getwd().

gethostbyname.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specifications of gethostbyname(), gethostbyaddr(), and h_errno.

gets.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of gets().

iconv.3

iconv_close.3

iconv_open.3

mtk

VERSIONS: These functions are available in glibc since version 2.1.

index.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specifications of index() and rindex().

isalpha.3

mtk

CONFORMING TO: POSIX.1-2008 marks isalpha() as obsolete.

makecontext.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specifications of makecontext() and swapcontext().

memchr.3

mtk

VERSIONS: memchr() since glibc 2.2; rawmemchr() since glibc 2.1.

mempcpy.3

mtk

VERSIONS: mempcpy() since glibc 2.1.

mktemp.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of mktemp().

opendir.3

mtk

CONFORMING TO: POSIX.1-2008 specifies fdopendir().

rand.3

mtk

CONFORMING TO: POSIX.1-2008 marks rand_r() as obsolete.

siginterrupt.3

mtk

CONFORMING TO: POSIX.1-2008 marks siginterrupt() as obsolete.

sigset.3

mtk

CONFORMING TO: POSIX.1-2008 marks sighold(), sigignore(),
sigpause(), sigrelse(), and sigset() as obsolete.

strchr.3

mtk

VERSIONS: strchrnul() since glibc 2.1.1.

tempnam.3

mtk

CONFORMING TO: POSIX.1-2008 marks tempnam() as obsolete.

tmpnam.3

mtk

CONFORMING TO: POSIX.1-2008 marks tmpnam() as obsolete.

toascii.3

mtk

CONFORMING TO: POSIX.1-2008 marks toascii() as obsolete.

ualarm.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of ualarm().

ulimit.3

mtk

CONFORMING TO: POSIX.1-2008 marks ulimit() as obsolete.

usleep.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of usleep().

standards.7

mtk

Updated details for POSIX.1-2008, and noted that if
POSIX.1-2001 is listed in the CONFORMING TO section of a man

page, then the reader can assume that the interface is also specified in POSIX.1-2008, unless otherwise noted.

time.7

mtk

SEE ALSO: Add clock_getcpuclockid(3).

udp.7

mtk

SEE ALSO: add udplite(7).

Changes to individual pages (math functions)

Various changes here following on from the big update to the math pages in the previous release. Test results going back glibc 2.3.2 (so far) allowed updates to various pages to note changes in historical behavior for error reporting by math functions. Thanks to the following people for providing me with test results on various distributions and glibc versions: Alain Portal, Andries Brouwer, Fabian Kreutz, Heikki Orsila, Khalil GHORBAL, Pavel Heimlich, Reuben Thomas, Samuel Thibault, Soh Kam Yung, and Stephane Chazelas

cabs.3

cacos.3

cacosh.3

carg.3

casin.3

casinh.3

catan.3

catanh.3

ccos.3

ccosh.3

cexp.3

cimag.3

clog.3

clog10.3

conj.3

cpow.3

cproj.3

creal.3

csin.3

csinh.3

csqrt.3

ctan.3

ctanh.3

exp10.3

exp2.3

fdim.3

fenv.3

fma.3

fmax.3

fmin.3

log2.3

lrint.3

lround.3

nan.3

pow10.3

remquo.3

round.3

scalbln.3

sincos.3

tgamma.3

trunc.3

mtk

Added VERSIONS section noting that these functions first appeared in glibc in version 2.1.

cosh.3

mtk

BUGS: In glibc 2.3.4 and earlier, an FE_OVERFLOW exception is not raised when an overflow occurs.

fenv.3

mtk / Fabian Kreuz

Provide more detail in the description of rounding modes.

Add text describing FLT_ROUNDS (formerly in fma.3).

Add BUGS section pointing out the FLT_ROUNDS does not reflect changes by fesetround().

fma.3

mtk

Remove text about FLT_ROUNDS, replacing with a cross-reference to fenv(3).

fpclassify.3

mtk

CONFORMING TO: Note that the standards provide a weaker guarantee for the return value of isinf().

log.3

mtk

BUGS: In glibc 2.5 and earlier, log(nan("")) produces a bogus FE_INVALID exception.

lround.3

mtk

Add reference to fenv(3) for discussion of current rounding mode.

nextafter.3

mtk

BUGS: In glibc 2.5 and earlier these functions do not raise an FE_UNDERFLOW exception on underflow.

pow.3

mtk

BUGS: described buggy NaN return when x is negative and y is large.
See also: http://sources.redhat.com/bugzilla/show_bug.cgi?id=3866.
BUGS: Note the bogus FE_INVALID exception that occurred in glibc 2.3.2 and earlier on overflow and underflow.

remainder.3

mtk

Add reference to fenv(3) for discussion of current rounding mode.

round.3

mtk

Add reference to fenv(3) for discussion of current rounding mode.

scalb.3

mtk

CONFORMING TO: POSIX.1-2008 removes the specification of scalb().

tgamma.3

mtk

BUGS: In glibc 2.3.3, tgamma(+0) produced a domain error instead of a pole error.

y0.3

mtk

In glibc 2.3.2 and earlier, these functions do not raise an FE_INVALID exception for a domain error.

math_error.7

mtk

Rewrite introductory paragraph.
Point out that a NaN is commonly returned by functions that report a domain error.

==== Changes in man-pages-3.08 =====

Released: 2008-08-27, Zurich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Venkatesh Srinivas <me@acm.jhu.edu>
Vijay Kumar <vijaykumar@bravegnu.org>

Apologies if I missed anyone!

New and rewritten pages

getnetent_r.3

mtk

Documents getnetent_r(), getnetbyname_r(), and getnetbyaddr_r(), the reentrant equivalents of getnetent(), getnetbyname(), and getnetbyaddr().

getprotoent_r.3

mtk

Documents getprotoent_r(), getprotobyname_r(), and getprotobynumber_r(), the reentrant equivalents of getprotoent(), getprotobyname(), and getprotobynumber().

getrpcnt_r.3

mtk

Documents getrpcnt_r(), getrpcbyname_r(), and getrpcbynumber_r(), the reentrant equivalents of getrpcnt(), getrpcbyname(), and getrpcbynumber().

getservent_r.3

mtk

Documents getservent_r(), getservbyname_r(), and getservbyport_r(), the reentrant equivalents of getservent(), getservbyname(), and getservbyport().

numa.7

mtk

A new page giving overview details for the Linux NUMA interfaces.
Incorporates some material from mbind.2, and the description
of /proc/PID/numa_maps from proc.5.

Newly documented interfaces in existing pages

crypt.3

mtk

Add description of crypt_r().

New and changed links

crypt.3

mtk

New link to crypt.3.

getnetbyname_r.3

getnetbyaddr_r.3

mtk

New links to new getnetent_r.3.

getprotobyname_r.3

getprotobyname_r.3

mtk

New links to new getprotoent_r.3.

getrpcbyname_r.3

getrpcbynumber_r.3

mtk

New links to new getrpcent_r.3.

getservbyname_r.3

getservbyport_r.3

mtk

New links to new getservent_r.3.

numa_maps.5

mtk

Link to new numa(7) page, which incorporates the
/proc/PID/numa_maps description.

As part of the numactl() package, the /proc/PID/numa_maps
documentation was in a numa_maps.5 page; this link
ensures that "man 5 numa_maps" still works.

(Eventually, we may want to remove this link.)

Global changes

get_mempolicy.2

mbind.2

move_pages.2

set_mempolicy.2

mtk

Add reference to numa(7) for information on library support.

Added a VERSIONS section.

SEE ALSO: Add numa(7).

faccessat.2

fchmodat.2

fchownat.2

fstatat.2

mkdirat.2

mknodat.2

linkat.2

openat.2

readlinkat.2

renameat.2

symlinkat.2

unlinkat.2

mkfifoat.3

psignal.3

strsignal.3

mtk

These interfaces are specified in POSIX.1-2008.

Changes to individual pages

eventfd.2

Vijay Kumar

When an eventfd overflows, select() indicates the file as both readable and writable (not as having an exceptional condition).

fcntl.2

mtk

F_DUPFD_CLOEXEC is specified in POSIX.1-2008.

getrlimit.2

mtk

NOTES: Add text mentioning the shell 'ulimit' (or 'limit')

built-in command for setting resource limits.

gettimeofday.2

mtk

CONFORMING TO: POSIX.1-2008 marks gettimeofday() as obsolete.

link.2

mtk

Note kernel version where Linux stopped following symbolic links in 'oldpath'; see also <http://lwn.net/Articles/294667>.

POSIX.1-2008 makes it implementation-dependent whether or not 'oldpath' is dereferenced if it is a symbolic link.

Add a reference to linkat(2) for an interface that allows precise control of the treatment of symbolic links.

mbind.2

mtk

Remove material on library support and numactl; that material is now in numactl.7.

mmap.2

mtk

Add kernel version numbers for MAP_32BIT.

Add some details on MAP_32BIT (see <http://lwn.net/Articles/294642>).

move_pages.2

mtk

Added VERSIONS (from kernel 2.6.18) and CONFORMING TO sections.

open.2

mtk

O_CLOEXEC is specified in POSIX.1-2008.

socket.2

mtk

s/d/domain/ for name of argument.

Add reference to socket(2) for further information on domain, type, and protocol arguments.

utimensat.2

mtk

CONFORMING TO: POSIX.1-2008 specifies utimensat() and futimens().

dirfd.3

mtk

CONFORMING TO: Add POSIX.1-2008; other minor changes.

exec.3

mtk

Small rewording: "s/returned/failed with/ [an error]".

fmemopen.3

mtk

Since glibc 2.7, it is possible to seek past the end of a stream created by `open_memstream()`. Add a BUGS section describing the bug in earlier glibc versions.

gethostbyname.3

mtk

Clarify exactly which functions are obsoleted by `getnameinfo()` and `getaddrinfo()`.

getnetent.3

mtk

Rephrase description in terms of a database, rather than a file. Note that each of the `get*()` functions opens a connection to the database if necessary.

The database connection is held open between `get*()` calls if 'stayopen' is non-zero (not necessarily 1).

s/zero terminated list/NULL-terminated list/

mtk

In glibc 2.2, the type of the 'net' argument for `getnetbyaddr()` changed from 'long' to 'uint32_t'.

mtk

Note that the `gethostbyaddr()` 'net' argument is in host byte order.

mtk

RETURN VALUE: emphasize that returned pointer points to a statically allocated structure.

SEE ALSO: add `getnetent_r.3`.

getprotoent.3

mtk

Rephrase description in terms of a database, rather than a file. Note that each of the `get*()` functions opens a connection to the database if necessary.

The database connection is held open between `get*()` calls if 'stayopen' is non-zero (not necessarily 1).

s/zero terminated list/NULL-terminated list/

mtk

RETURN VALUE: emphasize that returned pointer points to a statically allocated structure.

SEE ALSO: add `getprotoent_r.3`.

getrpcent.3

mtk

s/rpc/RPC/.

Rephrase description in terms of a database, rather than a file.

Note that each of the get*() functions opens a connection to the database if necessary.

s/zero terminated list/NULL-terminated list/

mtk

RETURN VALUE: emphasize that returned pointer points to a statically allocated structure.

SEE ALSO: add getrpcnt_r.3.

getservent.3

mtk

Rephrase description in terms of a database, rather than a file.

Note that each of the get*() functions opens a connection to the database if necessary.

The database connection is held open between get*() calls if 'stayopen' is non-zero (not necessarily 1).

s/zero terminated list/NULL-terminated list/

mtk

RETURN VALUE: emphasize that returned pointer points to a statically allocated structure.

SEE ALSO: add getservent_r.3.

mkdtemp.3

mtk

CONFORMING TO: this function is specified in POSIX.1-2008.

mq_notify.3

Venkatesh Srinivas

s/sigev_notify_function/sigev_thread_function/

as per <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=494956>.

realpath.3

mtk

Relocate text for resolved_path==NULL case to DESCRIPTION.

POSIX.1-2001 leaves the resolved_path==NULL case as

implementation-defined; POSIX.1-2008 specifies the behavior

described in this man page.

sem_init.3

mtk

POSIX.1-2008 rectifies the POSIX.1-2001 omission, specifying that zero is returned by a successful sem_init() call.

core.5

Mike Bianchi / mtk

Make the page more helpful to non-programmers by referencing

the documentation of the shell's 'ulimit' command in the

discussion of RLIMIT_CORE and RLIMIT_FSIZE.

SEE ALSO: Add bash(1).

mtk

Note that a core dump file can be used in a debugger.

proc.5

mtk

Remove /proc/PID/numa_maps material (it is now in numa(7)).

cpuset.7

mtk

SEE ALSO: Add numa(7).

inotify.7

mtk / Li Zefan

Explain bug that occurred in coalescing identical events in kernels before 2.6.25.

(See commit 1c17d18e3775485bf1e0ce79575eb637a94494a2 "A potential bug in inotify_user.c" in the 2.6.25 Changelog.)

pthread.7

mtk

Update thread-safe functions list with changes in POSIX.1-2008.

SEE ALSO: add proc(5).

signal.7

mtk

Update list of async-signal-safe functions for POSIX.1-2008.

==== Changes in man-pages-3.09 =====

Released: 2008-09-10, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

fopencookie.3

mtk

Document fopencookie(3), a library function that allows custom implementation of a stdio stream.

networks.5

Martin (Joey) Schulze, with a few light edits by mtk

Documents the /etc/networks file.

Global changes

Various pages

mtk

s/time zone/timezone/ for consistency across pages and with POSIX.1.

kill.2

sigaction.2

sigpending.2

sigprocmask.2

sigsuspend.2

confstr.3

ctermid.3

ctime.3

ferror.3

flockfile.3

fopen.3

getaddrinfo.3

getgrnam.3

getnameinfo.3
getopt.3
getpwnam.3
longjmp.3
popen.3
rand.3
readdir.3
setjmp.3
sigsetops.3
sigwait.3
strtok.3
tzset.3
unlocked_stdio.3

mtk

Add/fix feature test macro requirements.

Changes to individual pages

fcntl.2

mtk, after a note by Mike Bianchi

More clearly and consistently describe whether or not the third argument to fcntl() is required, and what its type should be.

mtk

Move description of negative l_len from NOTES, integrating it into the discussion of file locking.

Minor rewrites of the text on file locking.

getrusage.2

Bernd Eckenfels

SEE ALSO: Add clock(3), clock_gettime(3).

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=353475>

ioctl_list.2

mtk

Remove old sentence about where to send updates for this page.

Add more detail on mount options that prevent updates to atime.

sched_setscheduler.2

Carsten Emde

Update kernel version numbers relating to real-time support.

stat.2

H. Peter Anvin

Note that lstat() will generally not trigger automounter action, whereas stat() will.

clock.3

Bernd Eckenfels

SEE ALSO: Add clock_gettime(3).

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=353475>

clock_getres.3

Tolga Dalman / mtk

Add "Link with -lrt" to SYNOPSIS; remove now redundant sentence mentioning librt from NOTES.

getdate.3

mtk

Rewrite description of getdate_r() and integrate into main text (rather than describing in NOTES).

Other parts rewritten for greater clarity.

Make it clearer in the main text that glibc does not implement %Z; remove discussion of that point from NOTES.

Added an example program.

hsearch.3

mtk

Noted that table size as specified by 'nel' is immutable.

Described differences between hsearch() and hsearch_r().

Added missing pieces to RETURN VALUE.

Added a number of new entries under ERRORS.

NOTES: added some basic advice on sizing the hash table; noted that when a table is destroyed, the caller is responsible for freeing the buffers pointed to by 'key' and 'data' fields.

One of the BUGS was fixed in glibc 2.3.

Rewrote and clarified various other pieces.

Rename arguments for reentrant functions, using same name as glibc headers: s/ret/retval/; s/tab/htab/.

mtk, after a suggestion by Timothy S. Nelson

Integrate discussion of reentrant functions into main discussion (rather than as a short paragraph at the end).

iconv.3

Bruno Haible

Describe "shift sequence" input.

ptsname.3

sukadev

Fix return type of ptsname_r() in SYNOPSIS.

readdir.3

H. Peter Anvin

s/stat(2)/lstat(2)/ when discussing d_type (since we

are talking about a case where we might be interested to whether the file itself is a symbolic link).

sigsetops.3

Chris Head, signed-off-by: Mike Fry singer

Fix typo: s/sigdelset/sigorset/

proc.5

Mats Wichmann / mtk

s/[number]/[pid]/ in file names for /proc/PID files.

And similar changes for task/[tid] sub-directories.

mtk / Mats Wichmann

In the description of /proc/[pid]/environ, remove reference to lilo(8)/grub(8) since there seems to be nothing in those pages that related to this /proc file.

Michael Schurter / mtk

Remove sentence wrongly saying that /proc/meminfo reports info in bytes;

see <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=462969>

mtk

Note that /proc/meminfo reports system-wide memory usage statistics.

Joe Kerty

Document new fields in /proc/interrupts that were added in Linux 2.6.24.

unix.7

Marko Kreen

Since glibc 2.8, `_GNU_SOURCE` must be defined in order to get the definition of the `ucred` structure from `<sys/socket.h>`.

==== Changes in man-pages-3.10 =====

Released: 2008-09-23, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Sam Varshavchik <mrsam@courier-mta.com>

John Reiser <jreiser@bitwagon.com>

Apologies if I missed anyone!

Global changes

closedir.3

dirfd.3

readdir.3

rewinddir.3

scandir.3

seekdir.3

telldir.3

mtk

Fix 'dir' argument name: should be 'dirp'.

POSIX.1-2008 and glibc call this argument 'dirp' (consistent with the fact that it is a *pointer* to a DIR structure).

Changes to individual pages

clone.2

mtk, after a comment by John Reiser

Clarify text describing getpid() caching bug for clone() wrapper.

See also:

http://sourceware.org/bugzilla/show_bug.cgi?id=6910

https://bugzilla.redhat.com/show_bug.cgi?id=417521

getpid.2

mtk, after a comment by John Reiser

Describe getpid()'s PID caching and its consequences.

timerfd_create.2

Sam Varshavchik

s/it_interval/it_value/ when talking about TIMERFD_ABSTIME.

closedir.3

George Spelvin

Clarify closedir()'s treatment of underlying file descriptor.

tsearch.3

André Goddard Rosa

Fix memory leak in example program.

Add use of tdestroy to example program.

mtk

Add "#define _GNU_SOURCE" to example program.

protocols.5

mtk, after a note from Pavel Heimlich

Remove SEE ALSO references to nonexistent Guides to Yellow Pages

services.5

mtk

Remove some out-of-date bugs.

mtk, after a note from Pavel Heimlich

Remove SEE ALSO references to nonexistent Guides to Yellow Pages
and Bind/Hesiod docs.

mtk

Remove crufty text about use of comma instead of slash to separate
port and protocol.

===== Changes in man-pages-3.11 =====

Released: 2008-10-07, Munich

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

umount.2

Michael Kerrisk

Create a new page for `umount()` and `umount2()` by extracting existing material from `mount.2` page.

New and changed links

`umount.2`

Michael Kerrisk

Change link to point to new `umount.2`

The `umount2()` material migrated from `mount.2` to `umount.2`

Changes to individual pages

`execve.2`

Michael Kerrisk

`_SC_ARG_MAX` is no longer necessarily constant

POSIX.1-2001 says that the values returned by `sysconf()` are constant for the life of the process.

But the fact that, since Linux 2.6.23, `ARG_MAX` is settable via `RLIMIT_STACK` means `_SC_ARG_MAX` is no longer constant, since it can change at each `execve()`.

Michael Kerrisk

Linux now imposes a floor on the `ARG_MAX` limit

Starting with Linux 2.6.23, the `ARG_MAX` limit became settable via (1/4 of) `RLIMIT_STACK`. This broke ABI compatibility if `RLIMIT_STACK` was set such that `ARG_MAX` was < 32 pages. Document the fact that since 2.6.25

Linux imposes a floor on `ARG_MAX`, so that the old limit of 32 pages is guaranteed.

For some background on the changes to `ARG_MAX` in kernels 2.6.23 and 2.6.25, see:

http://sourceware.org/bugzilla/show_bug.cgi?id=5786

http://bugzilla.kernel.org/show_bug.cgi?id=10095

<http://thread.gmane.org/gmane.linux.kernel/646709/focus=648101>,
checked into 2.6.25 as

commit `a64e715fc74b1a7dcc5944f848acc38b2c4d4ee2`.

Also some reordering/rewording of the discussion of `ARG_MAX`.

`fallocate.2`

Michael Kerrisk

Note lack of glibc wrapper; caller must use `syscall(2)`

Glibc doesn't (and quite probably won't) include a wrapper for this system call. Therefore, point out that

potential callers will need to use `syscall(2)`, and rewrite the RETURN VALUE text to show things as they would be if `syscall()` is used.

Michael Kerrisk

Refer reader to `posix_fallocate(3)` for portable interface
Add a para to start of page that points out that this is the low-level, Linux-specific API, and point the reader to `posix_fallocate(3)` for the portable API.

getdents.2

readdir.3

Michael Kerrisk

`d_type` is currently only supported on `ext[234]`
As at kernel 2.6.27, only `ext[234]` support `d_type`.
On other file systems, `d_type` is always set to `DT_UNKNOWN (0)`.

getdents.2

Michael Kerrisk

Add an example program

Michael Kerrisk

comment out `linux_dirent` fields with varying location
The location of the fields after `d_name` varies according to the size of `d_name`. We can't properly declare them in C; therefore, put those fields inside a comment.

Michael Kerrisk

The `DT_*` constants are defined in `<dirent.h>`

Michael Kerrisk

Remove header files from SYNOPSIS
None of the header files provides what is needed.
Calls are made via `syscall(2)`.

Michael Kerrisk

The programmer must define the `linux_dirent` structure
Point out that this structure is not defined in glibc headers.

Michael Kerrisk

`s/dirent/linux_dirent/`
The structure isn't currently defined in glibc headers, and the kernel name of the structure is `'linux_dirent'` (as was already used in some, but not all, places in this page).

getrlimit.2

Michael Kerrisk

Reword/relocate discussion of BSD's historical `RLIMIT_OFILE`
The old sentence sat on its own in an odd place, and anyway the modern BSDs use the name `RLIMIT_NOFILE`.

Michael Kerrisk

Refer to `execve(2)` for `RLIMIT_STACK`'s effect on `ARG_MAX`
Refer the reader to new text in `execve(2)` that describes how

(since Linux 2.6.23) RLIMIT_STACK determines the value of ARG_MAX.

getrusage.2

Michael Kerrisk

Rusage measures are preserved across execve(2)

mlock.2

Maxin John

Add EAGAIN error.

move_pages.2

Nicolas François

Make a detail of EPERM error more precise

mount.2

Michael Kerrisk

Add description of per-process namespaces

Describe per-process namespaces, including discussion of clone() and unshare CLONE_NEWNS, and /proc/PID/mounts.

Michael Kerrisk

List a few other file systems that we may see in /proc/filesystems

Add some modern file systems to that list (xfs, jfs, ext3, reiserfs).

Michael Kerrisk

Document MS_SILENT (and MS_VERBOSE)

mount.2

umount.2

Michael Kerrisk

Split umount*() out into a separate page

The length of this page means that it's becoming difficult to parse which info is specific to mount() versus umount()/umount2(), so split the umount material out into its own page.

pause.2

Michael Kerrisk

Remove mention of words "library function"

This really is a system call.

readdir.2

Michael Kerrisk

The programmer must declare the old_linux_dirent structure

Glibc does not provide a definition of this structure.

Michael Kerrisk

s/dirent/old_linux_dirent/

Nowadays, this is the name of the structure in the kernel sources.

Michael Kerrisk

Remove words "which may change"

These words are slightly bogus: although the interface is obsolete, for ABI-compatibility reasons, the kernel folk should never be changing this interface.

Michael Kerrisk

Remove header files from SYNOPSIS

glibc doesn't provide any support for readdir(2), so remove these header files (which otherwise suggest that glibc does provide the required pieces).

recv.2

Nicolas François

Move kernel version number to first mention to MSG_ERRQUEUE.

semop.2

Kirill A. Shutemov

Fix typo in example

(The '&' before sop in the semop() call is unneeded.)

send.2

Michael Kerrisk

Make kernel version for MSG_CONFIRM more precise
s/2.3+ only/Since Linux 2.3.15/

sigaction.2

Michael Kerrisk

Refer reader to signal(7) for an overview of signals
Explain semantics of signal disposition during fork() and execve()
Refer to signal(7) for more details on signal mask.

sigaltstack.2

Michael Kerrisk

Explain inheritance of alternate signal stack across fork(2)

sigwaitinfo.2

Michael Kerrisk

Distinguish per-thread and process-wide signals
A sentence clarifying that pending signal set is union of
per-thread and process-wide pending signal sets.

Michael Kerrisk

These interfaces have per-thread semantics
The page was previously fuzzy about whether these interfaces have process-wide or per-thread semantics. (E.g., now the page states that the calling *thread* (not process) is suspended until the signal is delivered.)

sigpending.2

Michael Kerrisk

Explain effect of `fork()` and `execve()` for pending signal set

Michael Kerrisk

Explain how thread's pending signal set is defined

The pending set is the union of per-thread pending signals and process-wide pending signals.

sigprocmask.2

Michael Kerrisk

Explain effects of `fork()` and `execve()` for signal mask

splice.2

Michael Kerrisk

Note that `SPLICE_F_MOVE` is a no-op since kernel 2.6.21

syscall.2

Michael Kerrisk

Add more detail about wrapper functions

Add a few more details about work generally done by wrapper functions. Note that `syscall(2)` performs the same steps.

tkill.2

Michael Kerrisk

`EINVAL` error can also occur for invalid TGID

The `EINVAL` error on an invalid TGID for `tkill()` was not documented; this change documents it.

utimensat.2

Michael Kerrisk

POSIX.1-2008 revision will likely affect FTMs for `futimens()`

Make it clear that the POSIX.1 revision that is likely to affect the feature test macro requirements for `futimens()` is POSIX.1-2008.

Nicolas François

Make various wordings a little more precise.

The `times` argument point to **an array of** structures, and the man-page should say that consistently.

wait4.2

Michael Kerrisk

`wait3()` is a library function layered on `wait4()`.

On Linux `wait3()` is a library function implemented on top of `wait4()`. (Knowing this is useful when using `strace(2)`, for example.)

atan2.3

Nicolas François

Fix error in description of range or return value

In recent changes to the man page, mtk accidentally changed the description of the return value range to $-\pi/2..pi/2$; the correct range is $-\pi..pi$.

cmmsg.3

Nicolas François

Add parentheses after macro names.

ctime.3

Michael Kerrisk

Clarify mktime()'s use of tm_isdst

Describe use of tm_isdst for input to mktime(); explain how mktime() modifies this field. (This field is left unchanged in case of error.)

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=500178>

Michael Kerrisk

Clarify wording for ctime_r() and asctime_r() to indicate that the buffer must be at least 26 *bytes*.

Michael Kerrisk

Minor rewording of mktime() description.

floor.3

Nicolas François

floor.3: Fix error in description: s/smallest/largest/

hsearch.3

André Goddard Rosa

Call hdestroy() after using hash table created by hcreate(), for the sake of completeness

mq_getattr.3

Michael Kerrisk

mq_getattr() and mq_setattr() are layered on mq_getsetattr(2) mq_getattr() and mq_setattr() are library functions layered on top of the mq_getsetattr(2) system call. (This is useful info for users of strace(1).)

mq_receive.3

Michael Kerrisk

mq_send() is a library function layered on mq_timedreceive() syscall This info is useful for users of strace(1).

mq_send.3

Michael Kerrisk

mq_send() is a library function layered on mq_timedsend() syscall This info is useful for users of strace(1).

nextafter.3

Nicolas François

Make description more precise: s/next/largest/

readdir.3

Michael Kerrisk

SEE ALSO: add getdents(2)

Because readdir() is implemented on top of getdents(2).

realpath.3

Michael Kerrisk

Clarify that returned pathname is NULL terminated

Also clarify that null-byte is included in PATH_MAX limit.

proc.5

Michael Kerrisk

Rewrite and simplify description of /proc/mounts

Most of the relevant discussion is now under /proc/PID/mounts;
all that needs to be here is a mention of the pre-2.4.19
system-wide namespace situation, and a reference to the
discussion under /proc/PID/mounts.

Michael Kerrisk

Add description of /proc/PID/mounts

Largely cribbed from existing /proc/mounts discussion, which is
about to be rewritten.

mq_overview.7

Michael Kerrisk

Add mq_notify() to list of lib. functions and syscalls in MQ API

signal.7

Michael Kerrisk

Improve description in NAME section

Add mention of sigaltstack(2).

Describe syscalls that synchronously wait for a signal,

Give overview of syscalls that block until a signal is caught

Add overview of interfaces for sending signals.

Michael Kerrisk

Describe semantics w.r.t. fork() and execve()

Include text describing semantics of fork() and execve() for
signal dispositions, signal mask, and pending signal set.

==== Changes in man-pages-3.12 =====

Released: 2008-10-29, Bucaramanga

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

pthread_attr_init.3

Michael Kerrisk

New page for pthread_attr_init(3) and pthread_attr_destroy(3)

pthread_attr_setdetachstate.3

Michael Kerrisk

New page for pthread_attr_setdetachstate(3) and pthread_attr_getdetachstate(3)

pthread_attr_setguardsize.3

Michael Kerrisk

New page for pthread_attr_setguardsize(3) and pthread_attr_getguardsize(3)

pthread_attr_setscope.3

Michael Kerrisk

New page for pthread_attr_setscope(3) and pthread_attr_getscope(3)

pthread_attr_setstack.3

Michael Kerrisk

New page for pthread_attr_setstack(3) and pthread_attr_getstack(3)

pthread_attr_setstackaddr.3

Michael Kerrisk

New page for pthread_attr_setstackaddr(3) and
pthread_attr_getstackaddr(3)

pthread_attr_setstacksize.3

Michael Kerrisk

New page for pthread_attr_setstacksize(3) and
pthread_attr_getstacksize(3)

pthread_create.3

Michael Kerrisk

New page describing pthread_create(3)

pthread_detach.3

Michael Kerrisk

New page for pthread_detach(3)

pthread_equal.3

Michael Kerrisk

New page for pthread_equal(3)

pthread_exit.3

Michael Kerrisk

New page describing pthread_exit(3)

pthread_getattr_np.3

Michael Kerrisk

New page for pthread_getattr_np(3)

pthread_join.3

Michael Kerrisk

New page for pthread_join(3)

pthread_self.3

Michael Kerrisk

New page for pthread_self(3)

pthread_tryjoin_np.3

Michael Kerrisk

New page for pthread_tryjoin_np(3) and pthread_timedjoin_np(3)

Newly documented interfaces in existing pages

dup.2

Michael Kerrisk

Add description of dup3()
dup3() was added in kernel 2.6.27.

epoll_create.2

Michael Kerrisk

Add description of new epoll_create1()
The new epoll_create1() system call appeared in Linux 2.6.27.

eventfd.2

Michael Kerrisk

Describe eventfd2() and EFD_NONBLOCK and EFD_CLOEXEC
Linux 2.6.27 added eventfd(), which supports a flags argument
that eventfd() did not provide. The flags so far implemented
are EFD_NONBLOCK and EFD_CLOEXEC,

inotify_init.2

Michael Kerrisk

Add description of inotify_init1()
The inotify_init1() system call was added in Linux 2.6.27.

pipe.2

Michael Kerrisk

Add description of new pipe2() syscall
pipe2() was added in 2.6.27. Describe the O_NONBLOCK and
O_CLOEXEC flags.

signalfd.2

Michael Kerrisk

Describe signalfd4() and SFD_NONBLOCK and SFD_CLOEXEC
Linux 2.6.27 added signalfd4(), which supports a flags argument
that signalfd() did not provide. The flags so far implemented
are SFD_NONBLOCK and SFD_CLOEXEC.

New and changed links

dup3.2

Michael Kerrisk

New link to dup.2
dup.2 now contains the description of the new dup3() syscall.

epoll_create1.2

Michael Kerrisk

New link to epoll_create.2
epoll_create.2 now includes a description of the new
epoll_create1() system call.

eventfd2.2

Michael Kerrisk

New link to eventfd.2

The eventfd.2 page has some details on the eventfd2() system call, which was new in Linux 2.6.27.

inotify_init1.2

Michael Kerrisk

New link to inotify_init.2

inotify_init.2 now includes a description of the new inotify_init1() system call.

pipe2.2

Michael Kerrisk

New link to pipe.2

pipe(2) now contains a description of the new pipe2() syscall.

pthread_attr_destroy.3

Michael Kerrisk

New link to new pthread_attr_init.3

pthread_attr_getdetachstate.3

Michael Kerrisk

New link to new pthread_attr_setdetachstate.3

pthread_attr_getguardsize.3

Michael Kerrisk

New link to new pthread_attr_setguardsize.3

pthread_attr_getscope.3

Michael Kerrisk

New link to new pthread_attr_setscope.3

pthread_attr_getstack.3

Michael Kerrisk

New link to new pthread_attr_setstack.3

pthread_attr_getstackaddr.3

Michael Kerrisk

New link to new pthread_attr_setstackaddr.3

pthread_attr_getstacksize.3

Michael Kerrisk

New link to new pthread_attr_setstacksize.3

pthread_timedjoin_np.3

Michael Kerrisk

New link to new pthread_tryjoin_np.3

signalfd.2

Michael Kerrisk

New link to signalfd.2

signalfd.2 now includes text describing signalfd4() system call, new in Linux 2.6.27.

Global changes

eventfd.2, getdents.2, mprotect.2, signalfd.2, timerfd_create.2, wait.2, backtrace.3, clock_getcpuclockid.3, end.3, fmemopen.3, fopencookie.3, getdate.3, getgrouplist.3, getprotoent_r.3, getservernt_r.3, gnu_get_libc_version.3, inet.3, inet_pton.3, makecontext.3, matherr.3, offsetof.3, pthread_attr_init.3, pthread_create.3, pthread_getattr_np.3, sem_wait.3, strtol.3, core.5

Michael Kerrisk

Add ".SS Program source" to EXAMPLE

Add ".SS Program source" to clearly distinguish shell session and descriptive text from actual program code.

eventfd.2, execve.2, getdents.2, ioprio_set.2, mprotect.2, signalfd.2, timerfd_create.2, wait.2, backtrace.3, clock_getcpuclockid.3, end.3, fmemopen.3, fopencookie.3, frexp.3, getdate.3, getgrouplist.3, getprotoent_r.3, getservernt_r.3, gnu_get_libc_version.3, inet.3, inet_pton.3, makecontext.3, malloc.3, matherr.3, offsetof.3, pthread_attr_init.3, pthread_create.3, pthread_getattr_np.3, sem_wait.3, strptime.3, strtok.3, strtol.3, core.5, proc.5, cpuset.7, mq_overview.7

Michael Kerrisk

Format user input in shell sessions in boldface

frexp.3, strptime.3, strtok.3

Michael Kerrisk

Relocate shell session above example program

Move the shell session text that demonstrates the use of the example program so that it precedes the actual example program. This makes the page consistent with the majority of other pages.

Changes to individual pages

epoll_create.2

Michael Kerrisk

Say more about unused epoll_create() 'size' arg

Supply a little more explanation about why the 'size' argument of `epoll_create()` is nowadays ignored.

eventfd.2

Michael Kerrisk

Remove crufty text relating to flags argument

Remove sentence saying that glibc adds a flags argument to the syscall; that was only relevant for the older `eventfd()` system call.

getdents.2

Christoph Hellwig

Fix text relating to `DT_UNKNOWN` and 'd_type' support

Some file systems provide partial support for 'd_type', returning `DT_UNKNOWN` for cases they don't support.

Update the discussion of 'd_type' and `DT_UNKNOWN` to support this.

getpeername.2, getsockname.2

Michael Kerrisk

SEE ALSO: add `ip(7)` and `unix(7)`

getsockopt.2

Michael Kerrisk

`EINVAL` can also occur if 'optval' is invalid

In some cases, `EINVAL` can occur if 'optval' is invalid.

Note this, and point reader to an example in `ip(7)`.

In response to:

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=216092>

inotify_init.2

pipe.2

timerfd_create.2

Michael Kerrisk

Clarify `*_NONBLOCK` description

Make it clear that the `NONBLOCK` flag sets an attribute in the new open file description.

sched_yield.2

Michael Kerrisk

Rewrite description in terms of threads

The text formerly described the operation of `sched_yield()` in terms of processes. It should be in terms of threads.

Michael Kerrisk

Add NOTES text on appropriate use of `sched_yield()`

Strategic calls to `sched_yield()` can be used to improve performance, but unnecessary use should be avoided.

sigaction.2

Michael Kerrisk

Clarify that `sa_mask` affects the *per-thread* signal mask
The page didn't previously clearly explain the scope of the signal mask that is affected by `sa_mask`.

signalfd.2

Michael Kerrisk

Remove crufty text relating to flags argument
Remove sentence saying that glibc adds a flags argument to the syscall; that was only relevant for the older `signalfd()` system call.

sigprocmask.2

Michael Kerrisk

Clarify that `sigprocmask()` operates on a per-thread mask
The first sentence of the page was vague on the scope of the attribute changed by `sigprocmask()`. Reword to make this clearer and add a sentence in NOTES to explicitly state that the signal mask is a per-thread attribute.

socket.2

Michael Kerrisk

Document `SOCK_NONBLOCK` and `SOCK_CLOEXEC` flags
These flags, specified in the 'type' argument, are supported since Linux 2.6.27.

socketpair.2

Michael Kerrisk

Refer to `socket(2)` for `SOCK_CLOEXEC` and `SOCK_NONBLOCK`
Refer the reader to `socket(2)` for a description of the `SOCK_CLOEXEC` and `SOCK_NONBLOCK` flags, which are supported by `socketpair()` since Linux 2.6.27.

syscalls.2

Michael Kerrisk

Add new 2.6.27 system calls
Add `pipe2()`, `dup3()`, `epoll_create1()`, `inotify_init1()`, `eventfd2()`, `signalfd4()`.

timerfd_create.2

Michael Kerrisk

Document `timerfd_create()` `TFD_CLOEXEC` and `TFD_NONBLOCK`
`TFD_CLOEXEC` and `TFD_NONBLOCK` are supported since Linux 2.6.27.

vfork.2

Michael Kerrisk

Clarify meaning of "child releases the parent's memory"
The man page was not explicit about how the memory used by

the child is released back to the parent.

ctime.3

Michael Kerrisk

ctime_r() and localtime_r() need not set 'timezone' and 'daylight'

The man page already noted that these functions need not set 'tzname', but things could be clearer: tzset() is not called, then the other two variables also are not set.

Also, clarify that ctime() does set 'timezone' and 'daylight'.

dlopen.3

Michael Kerrisk

LD_LIBRARY_PATH is inspected once, at program start-up

Make it clear that LD_LIBRARY_PATH is inspected *once*, at program start-up. (Verified from source and by experiment.)

fmemopen.3

Michael Kerrisk

Document binary mode (mode 'b')

Glibc 2.9 adds support to fmemopen() for binary mode opens.

Binary mode is specified by inclusion of the letter 'b' in the 'mode' argument.

getaddrinfo.3

Michael Kerrisk

Clarify error descriptions with some examples

Clarify the description of some errors by giving examples that produce the errors. (Text added for EAI_SERVICE and EAI_SOCKTYPE.)

Also, add an error case for EAI_BADFLAGS.

gethostbyname.3

Michael Kerrisk

Rationalize text on POSIX.1-2001 obsolete interfaces

POSIX.1 marks gethostbyname(), gethostbyaddr(), and 'h_errno' as obsolete. The man page explained this, but with some duplication. Remove the duplication, and otherwise tidy up discussion of this point.

popen.3

Michael Kerrisk

Change one-line description in NAME

s%process I/O%pipe stream to or from a process%

Michael Kerrisk

Document 'e' (close-on-exec) flag

glibc 2.9 implements the 'e' flag in 'type', which sets the

close-on-exec flag on the underlying file descriptor.

raise.3

Michael Kerrisk

SEE ALSO: add pthread_kill(3)

readdir.3

Christoph Hellwig

Fix text relating to DT_UNKNOWN and 'd_type' support

(This mirrors the previous change to getdents.2)

Some file systems provide partial support for 'dt_type',
returning DT_UNKNOWN for cases they don't support.

Update the discussion of 'd_type' and DT_UNKNOWN to
support this.

strcpy.3

Jason Spiro

Strengthen warning about checking against buffer overruns

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=413940>

tty_ioctl.4

Michael Kerrisk

Explain capability requirements for TIOCCONS

Explain capability requirements for TIOCCONS, and describe
changes in 2.6.10 relating to capabilities.

Michael Kerrisk

Explain capability requirements for various ioctls

For TIOCSLCKTRMIOS, TIOCSCTTY, TIOCEXCL, explain the exact
capability that is required (the text formerly just said "root"
in each case).

proc.5

Michael Kerrisk

Document /proc/sys/kernel/threads-max

Defines the system-wide limit on the number of threads (tasks).

utmp.5

Pierre Cazenave

It is just "other" who should not have write perms on utmp

The page was vague before, saying that utmp should not be
writable by any user. This isn't true: it can be, and
typically is, writable by user and group.

epoll.7

Michael Kerrisk

Mention epoll_create1() as part of epoll API

epoll_create1() was added in Linux 2.6.27, and extends the
functionality of epoll_create().

inotify.7

Michael Kerrisk

Mention `inotify_init1()` in overview of API

Discuss the new `inotify_init1()` system call in the overview of the inotify API.

ip.7

Michael Kerrisk

Detail `EINVAL` error for `IP_ADD_MEMBERSHIP` socket option

In response to:

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=216092>

iso_8859-7.7

Lefteris Dimitroulakis

Add Drachma, Euro, and Greek Ypogegrammeni

Also, amend description of characters 0241 and 0242.

man-pages.7

Michael Kerrisk

Example shell sessions should have user input boldfaced

pthread.7

Michael Kerrisk

Describe return value from pthreads functions

Describe the usual success (0) and failure (non-zero) returns, and note that POSIX.1-2001 specifies that pthreads functions can never fail with the error `EINTR`.

signal.7

Michael Kerrisk

Timeouts make socket interfaces non-restartable

If `setsockopt()` is used to set a timeout on a socket(), then the various socket interfaces are not automatically restarted, even if `SA_RESTART` is specified when establishing the signal handler. Analogous behavior occurs for the "stop signals" case.

socket.7

Michael Kerrisk

SEE ALSO: `add unix(7)`

ld.so.8

Michael Kerrisk

Document `LD_USE_LOAD_BIAS`

Drawing heavily on Jakub Jelinek's description in

<http://sources.redhat.com/ml/libc-hacker/2003-11/msg00127.html>

(Subject: [PATCH] Support `LD_USE_LOAD_BIAS`)

--inhibit-rpath is ignored for setuid/setgid ld.so
The --inhibit-rpath option is ignored if ld.so is setuid/setgid
(not if the executable is setuid/setgid).

Michael Kerrisk

Since glibc 2.4, setuid/setgid programs ignore LD_ORIGIN_PATH

Michael Kerrisk

Fix description of LD_PROFILE and LD_PROFILE_OUTPUT

Clarify that LD_PROFILE is pathname or a soname,
and identify name of profiling output file.

Fix description of LD_PROFILE_OUTPUT, which wasn't even close to
the truth. (But why did it remain unfixed for so many years?)

Michael Kerrisk

Since glibc 2.3.4, setuid/setgid programs ignore LD_DYNAMIC_WEAK

Michael Kerrisk

Since version 2.3.5, setuid/setgid programs ignore LD_SHOW_AUXV

Michael Kerrisk

Reorder lists of LD_* environment variables alphabetically

Michael Kerrisk

Since glibc 2.3.4, setuid/setgid programs ignore LD_DEBUG

==== Changes in man-pages-3.13 =====

Released: 2008-11-07, Bucaramanga

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The following people contributed notes, ideas, or patches that have
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Apologies if I missed anyone!

New and rewritten pages

pthread_attr_setaffinity_np.3

Michael Kerrisk

New page for `pthread_attr_setaffinity_np(3)` and
`pthread_attr_getaffinity_np(3)`

`pthread_attr_setschedparam.3`

Michael Kerrisk

New page for `pthread_attr_setschedparam(3)` and
`pthread_attr_getschedparam(3)`

`pthread_attr_setschedpolicy.3`

Michael Kerrisk

New page for `pthread_attr_setschedpolicy(3)` and
`pthread_attr_getschedpolicy(3)`

`pthread_setaffinity_np.3`

Michael Kerrisk

New page for `pthread_setaffinity_np(3)` and `pthread_getaffinity_np(3)`

`pthread_setschedparam.3`

Michael Kerrisk

New page for `pthread_setschedparam(3)` and `pthread_getschedparam(3)`

`pthread_setschedprio.3`

Michael Kerrisk

New page for `pthread_setschedprio(3)`

New and changed links

`pthread_attr_getaffinity_np.3`

Michael Kerrisk

New link to new `pthread_attr_setaffinity_np.3`

`pthread_attr_getschedparam.3`

Michael Kerrisk

New link to new `pthread_attr_setschedparam.3`

`pthread_attr_getschedpolicy.3`

Michael Kerrisk

New link to new `pthread_attr_setschedpolicy.3`

`pthread_getaffinity_np.3`

Michael Kerrisk

New link to new `pthread_setaffinity_np.3`

`pthread_getschedparam.3`

Michael Kerrisk

New link to new pthread_setschedparam.3

Global changes

pthread_attr_setaffinity_np.3

pthread_getattr_np.3

pthread_setaffinity_np.3

pthread_tryjoin_np.3

Michael Kerrisk

Explain _np suffix

Add text to CONFORMING TO explaining that the "_np" suffix is because these functions are non-portable.

Changes to individual pages

sched_setaffinity.2

Michael Kerrisk

SEE ALSO: add sched_getcpu(3)

sched_setaffinity.2

Michael Kerrisk

SEE ALSO: Add pthread_setaffinity_np(3)

sched_setaffinity.2

Michael Kerrisk

Clarify EINVAL error for cpusetsize < kernel mask size

For sched_setaffinity(), the EINVAL error that occurs if 'cpusetsize' is smaller than the kernel CPU set size only occurs with kernels before 2.6.9.

vfork.2

Michael Kerrisk

Child holds parent's memory until execve() or *termination*

The page was phrased in a few places to describe the child as holding the parent's memory until the child does an execve(2) or an _exit(2). The latter case should really be the more general process termination (i.e., either _exit(2) or abnormal termination).

clock_getres.3

Michael Kerrisk

CLOCK_PROCESS_CPUTIME_ID and CLOCK_THREAD_CPUTIME_ID not settable

According to POSIX.1-2001, the CLOCK_PROCESS_CPUTIME_ID and

CLOCK_THREAD_CPUTIME_ID clocks should be settable, but

currently they are not.

pthread_attr_setstacksize.3

Michael Kerrisk, after a report by Karsten Weiss

EINVAL occurs on some systems if stacksize != page-size
On MacOS X at least, pthread_attr_setstacksize(3) can fail with EINVAL if 'stacksize' is not a multiple of the system page size. Best to mention this so as to aid people writing portable programs.

pthread_create.3

Karsten Weiss

Fix bug in EXAMPLE program

The calloc() line should read like this instead:

```
tinfo = calloc(num_threads, sizeof(struct thread_info));
```

pthread_exit.3

Michael Kerrisk

BUGS: thread group with a dead leader and stop signals

Document the bug that can occur when a stop signal is sent to a thread group whose leader has terminated.

<http://thread.gmane.org/gmane.linux.kernel/611611>

<http://marc.info/?l=linux-kernel&m=122525468300823&w=2>

resolver.3

Michael Kerrisk

Fix prototype of dn_expand()

The 4th argument is "char *", not "unsigned char *".

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504708>

epoll.7

Michael Kerrisk

Fix error handling after accept() in example code

Simply continuing after an error is in most cases wrong, and can lead to infinite loops (e.g., for EMFILE).

So handle an error by terminating.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504202>

epoll.7

Michael Kerrisk

Add error handling for epoll_wait() call in example code

epoll.7

Michael Kerrisk

Improve example code

Fill in some gaps in example code (variable declarations, adding listening socket to epoll set).

Give variables more meaningful names.
Other minor changes.
<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504202>

iso_8859-7.7

Lefteris Dimitroulakis

Add characters for Drachma and Greek Ypogegrammeni

Lines for these two characters were added in the previous patch,
but the actual characters were not included in the 4th column
of the table. This fixes that.

pthread.7

Michael Kerrisk

Add a section describing thread IDs

In particular, note that in each pthreads function that takes
a thread ID argument, that ID by definition refers to a thread
in the same process as the caller.

===== Changes in man-pages-3.14 =====

Released: 2008-11-25, Bucaramanga

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

CPU_SET.3

Michael Kerrisk

New page documenting CPU_* macros

This page contains material moved out of sched_setscheduler(2).

It overwrites a previously existing link file with the same name.

Michael Kerrisk

Add description of macros for dynamically allocated CPU sets

Add descriptions of CPU_ALLOC(), CPU_ALLOC_SIZE(), CPU_FREE(), CPU_SET_S(), CPU_CLR_S(), CPU_ISSET_S(), CPU_ZERO_S(), CPU_COUNT_S(), CPU_AND_S(), CPU_OR_S(), CPU_XOR_S(), and CPU_EQUAL_S().

Michael Kerrisk

Add documentation of CPU_COUNT()

Michael Kerrisk

Add description of CPU_AND(), CPU_OR, CPU_XOR(), and CPU_EQUAL()

Plus a few other small clean-ups of the text

Michael Kerrisk

Various improvements in DESCRIPTION

After review comments by Bert Wesarg:

- * Explain that cpu_set_t is a bitset, but should be considered opaque.
- * A CPU set can be duplicated with memset().
- * Size of a CPU set is rounded up to size of long.
- * CPU_SETSIZE is in bits, but the setsize argument is in bytes.

Michael Kerrisk

Document CPU_ALLOC()/CPU_ALLOC_SIZE() bug

These macros return twice what they should because of thinko in glibc 2.8 and earlier. The bug is fixed for glibc 2.9.

http://sourceware.org/bugzilla/show_bug.cgi?id=7029

Michael Kerrisk

NOTES: Discuss use of types in "prototypes" for these macros

The SYNOPSIS shows types for arguments and return values, but these are really just suggestions: since the interfaces are macros, the compiler won't catch all violations of the "type rules". Warn the reader of this.

pthread_attr_setinheritsched.3

Michael Kerrisk

New page for pthread_attr_setinheritsched(3) and pthread_attr_getinheritsched(3)

pthread_cancel.3

Michael Kerrisk

New page for pthread_cancel(3)

pthread_cleanup_push.3

Michael Kerrisk

New page for pthread_cleanup_push(3) and pthread_cleanup_pop(3)

pthread_setcancelstate.3

Michael Kerrisk

New page for pthread_setcancelstate(3) and pthread_setcanceltype(3)

pthread_testcancel.3

Michael Kerrisk

New page for pthread_testcancel(3)

Newly documented interfaces in existing pages

clone.2

Jens Axboe

Document CLONE_IO (new in Linux 2.6.25)

Some text also by mtk.

Michael Kerrisk

Document CLONE_NEWNET

Michael Kerrisk

Document CLONE_NEWUTS (new in Linux 2.6.19)

Michael Kerrisk

Document CLONE_NEWIPC flag (new in Linux 2.6.19)

Michael Kerrisk

Document CLONE_NEWPID flag (new in Linux 2.6.24)

mmap.2

Michael Kerrisk

Document MAP_STACK flag (new in Linux 2.6.27)

arp.7

Michael Kerrisk

Document /proc file retrans_time_ms (new in Linux 2.6.12)

Michael Kerrisk

Document /proc file base_reachable_time_ms (new in Linux 2.6.12)

icmp.7

Michael Kerrisk

Document icmp_ignore_bogus_error_responses (new in Linux 2.2)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document icmp_ratelimit and icmp_ratemask (new in Linux 2.4.10)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document icmp_echo_ignore_broadcasts (new in Linux 2.6.12)

Text taken from Documentation/networking/ip-sysctl.txt

tcp.7

Michael Kerrisk

Document /proc file tcp_slow_start_after_idle (new in Linux 2.6.18)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_base_mss (new in Linux 2.6.17)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_frto_response (new in Linux 2.6.22)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_moderate_rcvbuf (new in Linux 2.4.17/2.6.7)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_congestion_control (new in Linux 2.4.13)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_no_metrics_save (new in Linux 2.6.6)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_mtu_probing (new in Linux 2.6.17)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_dma_copybreak (new in Linux 2.6.24)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_tso_win_divisor (new in Linux 2.6.9)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_allowed_congestion_control (new in Linux 2.4.20)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_workaround_signed_windows (new in Linux 2.6.26)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_available_congestion_control (new in Linux 2.4.20)

Text taken from Documentation/networking/ip-sysctl.txt

Michael Kerrisk

Document /proc file tcp_abc (new in Linux 2.6.15)

Text taken from Documentation/networking/ip-sysctl.txt

udp.7

Michael Kerrisk

Document /proc files `udp_mem`, `udp_rmem_min`, and `udp_wmem_min`

All of these are new in Linux 2.6.25

New and changed links

[CPU_ALLOC.3](#)

[CPU_ALLOC_SIZE.3](#)

[CPU_AND.3](#)

[CPU_AND_S.3](#)

[CPU_CLR_S.3](#)

[CPU_COUNT.3](#)

[CPU_COUNT_S.3](#)

[CPU_EQUAL.3](#)

[CPU_EQUAL_S.3](#)

[CPU_FREE.3](#)

[CPU_ISSET_S.3](#)

[CPU_OR.3](#)

[CPU_OR_S.3](#)

[CPU_SET_S.3](#)

[CPU_XOR.3](#)

[CPU_XOR_S.3](#)

[CPU_ZERO_S.3](#)

Michael Kerrisk

New link to new [CPU_SET.3](#)

[CPU_CLR.3](#)

[CPU_ISSET.3](#)

[CPU_ZERO.3](#)

Michael Kerrisk

Update links to point to [CPU_SET.3](#)

The documentation of the `CPU_*` macros migrated to a new

location: [CPU_SET.3](#).

[pthread_attr_getinheritsched.3](#)

Michael Kerrisk

New link to new [pthread_attr_setinheritsched.3](#)

[pthread_cleanup_pop.3](#)

Michael Kerrisk

New link to new [pthread_cleanup_push.3](#)

[pthread_setcanceltype.3](#)

Michael Kerrisk

New link to new [pthread_setcancelstate.3](#)

Global changes

clone.2

mount.2

unshare.2

proc.5

path_resolution.7

Michael Kerrisk

Global fix: s/namespace/mount-point namespace/, as appropriate

In recent times, a number of other namespace flags have been added to clone(2). As such, it is no longer clear to use the generic term "namespace" to refer to the particular namespace controlled by CLONE_NEWNS; instead, use the term "mount-point namespace".

Michael Kerrisk

Global fix: s/mount-point namespace/mount namespace/

This is more consistent with the term "mounts namespace" used in the 2008 ACM SIGOPS paper, "Virtual servers and checkpoint/restart in mainstream Linux".

(I avoided the "s", because using the plural strikes me as klunky English, and anyway we don't talk about the "PIDs namespace" or the "networks namespace", etc..)

connect.2

listen.2

send.2

uname.2

cmsg.3

proc.5

arp.7

ddp.7

icmp.7

ip.7

raw.7

socket.7

tcp.7

udp.7

Michael Kerrisk

Global fix: eliminate mention of the obsolete sysctl(2) interface

Many pages still mention use of the obsolete sysctl(2) system call, or used the term "sysctls"; rewrite these mentions to instead be in terms of /proc interfaces.

fcntl.2

signal.2

mbsnrtowcs.3

mbsrtowcs.3

mbtowc.3

wcrtomb.3

wcsnrtombs.3

wcsrtombs.3

wctomb.3

Michael Kerrisk

Global fix: s/multi-thread/multithread/

getdents.2

pthread_attr_init.3

pthread_create.3

pthread_getattr_np.3

pthread_setaffinity_np.3

pthread_setschedparam.3

pthread_tryjoin_np.3

Michael Kerrisk

Use consistent error-handling function names

Many older pages use a `handle_error()` macro to do simple error handling from system and library function calls.

Switch these pages to do similar.

Changes to individual pages

time.1

Michael Kerrisk

Note that some shells have a 'time' built-in command

Therefore, to access the functionality described on this page, it may be necessary to specify the full pathname.

clone.2

Michael Kerrisk

Place list of `CLONE_*` flags in alphabetical order

(No content changes.)

fsync.2

Michael Kerrisk

Update feature test macro requirements for `fsync()`

Since glibc 2.8, the `fsync()` declaration is also exposed if `_POSIX_C_SOURCE >= 200112L`

sched_setaffinity.2

Michael Kerrisk

Add note on system-imposed restrictions on CPUs actually used

After Loïc Dommage's suggestion for `pthread_setaffinity_np(3)`, add similar text to this page noting that the system silently limits the set of CPUs on which the process actually runs to

the set of CPUs physically present and the limits imposed by `cpuset(7)`.

`sched_setaffinity.2`

Michael Kerrisk

Removed discussion of `CPU_*` macros()

These macros are now moving to a separate page.

Michael Kerrisk

Refer reader to `pthread_setaffinity_np(3)`

`pthread_setaffinity_np()` is preferable for setting thread CPU affinity if using the POSIX threads API.

`sysctl.2`

Michael Kerrisk

Add prominent warning against using this system call

This was already stated under NOTES, but make it even more prominent by adding a sentence at the start of the DESCRIPTION.

`uname.2`

Michael Kerrisk

Add C comments describing fields in `utsname` structure

`atan2.3`

Stefano Teso

Fix description of range of function value return

The range is not $[-\pi/2, \pi/2]$, but $[-\pi, \pi]$.

(mtk: This error was reported by Nicolas François, and should have been fixed in 3.11, but somewhere along the way, the fix got lost.)

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=506299>

`bindresvport.3`

Michael Kerrisk

Since glibc 2.8, `EPFNOSUPPORT` error is now `EAFNOSUPPORT`

Glibc switched to using a POSIX-specified error code for this error case.

http://bugs.linuxbase.org/show_bug.cgi?id=2375

`clock_getres.3`

Michael Kerrisk

`CLOCK_PROCESS_CPUTIME_ID` and `CLOCK_THREAD_CPUTIME_ID` not settable

According to POSIX.1-2001, the `CLOCK_PROCESS_CPUTIME_ID` and `CLOCK_THREAD_CPUTIME_ID` clocks should be settable, but currently they are not.

getgrnam.3

Michael Kerrisk

Clarify and add more detail in RETURN VALUE description

The page was a bit fuzzy in describing the return values for various cases. In particular, it needed to be more explicit in describing what happens for the "not found" case.

This is an analogous change to the change for
getpwnam.3, made after Andreas Henriksson's report.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504787>

Michael Kerrisk

Rename arguments to getgrnam_r() and getgrgid_r()
s/gbuf/grp/ and s/gbufp/result/, for consistency
with POSIX.1 argument names.

Michael Kerrisk

Clarify RETURN VALUE description

The page was a bit fuzzy in describing the return values for various cases. In particular, it needed to be more explicit in describing what happens for the "not found" case.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504708>

getpwnam.3

Michael Kerrisk

Rename arguments to getpwnam_r() and getpwuid_r()
s/pwbuf/pwd/ and s/pwbufp/result/, for consistency
with POSIX.1 argument names.

Michael Kerrisk

Clarify and add more detail in RETURN VALUE description

The page was a bit fuzzy in describing the return values for various cases. In particular, it needed to be more explicit in describing what happens for the "not found" case.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504787>

Michael Kerrisk

Add an EXAMPLE program for getpwnam_r()

inet_ntop.3

Michael Kerrisk

Rename 'cnt' argument to 'size'

This is consistent with POSIX.1, and also a more sensible name.

Michael Kerrisk

Rework text describing 'size' argument

(After a suggestion by Vegard Nossum.)

Also made a few other small rewordings to in the initial
paragraph.

makecontext.3

Michael Kerrisk

Add text on use of pointer arguments to `makecontext()`
Passing pointer arguments to `makecontext()` is possible,
but only on some architectures, and with no guarantees
of portability.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=504699>

`pthread_attr_setaffinity_np.3`

Michael Kerrisk

Various fixes after review by Loïc Dommage

Reviewed-by: Loïc Dommage

`pthread_attr_setaffinity_np.3`

`pthread_setaffinity_np.3`

Michael Kerrisk

Update to reflect new location of `CPU_*`() documentation
The `CPU_*`() macros are now documented in `CPU_SET.3`;
update to reflect that fact.

Michael Kerrisk

Remove redundant text relating to CPU sets

Information about `CPU_SETSIZE` can be found in `CPU_SET.3`, so
remove discussion of it here.

`pthread_attr_setschedparam.3`

`pthread_setschedparam.3`

Michael Kerrisk

Remove text saying that only `sched_priority` is required by POSIX.1

Loïc Dommage points out that if a system implements
`SCHED_SPORADIC` (which Linux does not), then other
fields are also specified in `sched_param`. The simple
solution is just to remove that phrase from the man
page.

`pthread_cancel.3`

`pthread_detach.3`

`pthread_join.3`

`pthread_setaffinity_np.3`

Michael Kerrisk

Make text of `ESRCH` error consistent

`pthread_setaffinity_np.3`

Michael Kerrisk

Add text to `EINVAL` error mentioning `cpuset(7)`

Michael Kerrisk

Various improvements after review by Loïc Dommage

Various fix-ups after Loïc's review.

Reviewed-by: Loïc Dommage

pthread_setschedparam.3

Michael Kerrisk

PTHREAD_INHERIT_SCHED is default for inherit scheduler attribute

In EXAMPLE, note that PTHREAD_INHERIT_SCHED is the default for the inherit scheduler attribute.

syslog.3

Masanari Iida

LOG_KERN messages can't be generated from user processes

Masanari notes that this is an FAQ for logger(1) and that Solaris and FreeBSD document this point in syslog(3).

The glibc info page also hides this comment in its source:

Internally, there is also LOG_KERN, but LOG_KERN == 0, which means if you try to use it here, just selects default.

proc.5

Ivana Varekova

Fix reference to kernel source file

Use relative reference to Documentation/mtr.txt.

arp.7

Michael Kerrisk

Add kernel version numbers for /proc interfaces

cpuset.7

Michael Kerrisk

SEE ALSO: add CPU_SET(3)

epoll.7

Michael Kerrisk

Note glibc version that added epoll support

icmp.7

Michael Kerrisk

Add kernel version numbers to /proc file descriptions

inotify.7

Vegard Nossum

Fix description of max_user_watches

It seems that inotify(7) is wrong here:

```
"/proc/sys/fs/inotify/max_user_watches
```

This specifies a limit on the number of watches that can be associated with each inotify instance."

On my system, the default value for this variable is 8192. But I cannot create more than 8192 watches in total for the same UID even when they are on different inotify instances. So I suggest to rephrase this as: "This specifies an upper limit on the number of watches that can be created per real user ID."

ip.7

Michael Kerrisk

Reorder socket options alphabetically

Michael Kerrisk

Added kernel version numbers for IP_* socket options

Michael Kerrisk

Relocate kernel version information for IP_PMTUDISC_PROBE

Michael Kerrisk

Add kernel version numbers for /proc/sys/net/ipv4/ip_* files

Michael Kerrisk

Remove mention of kernel header from description of IP_RECVERR

Looks like glibc has had this definition since about version 2.1.

Michael Kerrisk

Relocate kernel version information for ip_mreqn structure

Michael Kerrisk

Relocate info about Linux-specific sockopts to NOTES

Also add some source comments about non-standard Linux-specific options that are not yet documented.

netlink.7

Vegard Nossum

Fix incorrect variable names in example code

s/snl/sa/ * 2

pthread.7

Michael Kerrisk

Add section on cancellation points

This section includes a list of the functions that must and may be cancellation points.

Michael Kerrisk

Rework, and fix small error in, thread-safe function list

Integrate the changes that occurred in POSIX.1-2008 into the main list (to be consistent with the list, elsewhere on this page, of functions that are cancellation points).

Also, fix an error that said that strerror() was added to the list in POSIX.1-2008. It was strsignal() that was added. (strerror() was already in the list in POSIX.1-2001.)

Michael Kerrisk

Tweak text on sigpause() cancellation point

In POSIX.1-2008, this function moves from the "must be" to the "may be" list.

Michael Kerrisk

Add ref to signal(7) for further info on use of real-time signals
signal(7) provides some further details on the use of real-time
signals by the two Linux threading implementations.

Michael Kerrisk

SEE ALSO: add pthread_attr_init() and pthread_cancel()

tcp.7

Michael Kerrisk

Update description of tcp_rmem defaults for Linux 2.6

Michael Kerrisk

Add kernel version numbers for TCP_* socket options

Note kernel version were each socket option first appeared.

Michael Kerrisk

The tcp_bic* proc files disappeared in Linux 2.6.13

Michael Kerrisk

tcp_vegas_cong_avoid disappeared in Linux 2.6.13

Michael Kerrisk

Add mention of RFC 4138 for 'tcp_frto' /proc file

Michael Kerrisk

Remove mention of /proc in VERSIONS

This information is not indicated for each /proc interface

Michael Kerrisk

Clarify that tcp_mem measures in units of the system page size

Michael Kerrisk

Update tcp_frto description for 2.6.22 changes

Linux 2.6.22 added a mode value 2 ("Enable SACK-enhanced
F-RTO if flow uses SACK").

Michael Kerrisk

Fix alphabetical order in /proc file list

A few entries were slightly out of order.

Michael Kerrisk

Remove obsolete statement about /proc from VERSIONS

Much of the text has been updated to 2.6.27 or so,
so this statement no longer applies.

Michael Kerrisk

Add kernel version numbers for each /proc interface

Note kernel version where each /proc interface first appeared

Michael Kerrisk

tcp_westwood /proc file disappeared in Linux 2.6.13

Michael Kerrisk

Update description of tcp_wmem defaults for Linux 2.6

==== Changes in man-pages-3.15 =====

Released: 2008-12-05, Bucaramanga

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

makedev.3

Michael Kerrisk

New page for makedev(), major(), and minor() macros

pthread_cleanup_push_defer_np.3

Michael Kerrisk

New page for pthread_cleanup_push_defer_np(3) and pthread_cleanup_pop_restore_np(3)

Newly documented interfaces in existing pages

accept.2

Michael Kerrisk

Document accept4() system call, new in Linux 2.6.28

fmemopen.3

Petr Baudis

Add description of open_wmemstream(3)

tcp.7

Michael Kerrisk

Document MSG_TRUNC flag for TCP sockets

New and changed links

accept4.2

Michael Kerrisk

New link to accept.2

accept.2 now documents the new accept4() system call.

open_wmemstream.3

Petr Baudis

New link to fmemopen.3

fmemopen.3 now documents open_wmemstream().

pthread_cleanup_pop_restore_np.3

Michael Kerrisk

New link to new pthread_cleanup_push_defer_np.3

Global changes

accept.2

listen.2

recv.2

getpeername.2

getsockname.2

shutdown.2

socketpair.2

Michael Kerrisk

Global fix: SEE ALSO: add socket(7)

bind.2

rcmd.3

capabilities.7

ip.7

Michael Kerrisk

Global fix: s/reserved port/privileged port/

Some pages used one term, some pages the other term;
make some consistency.

connect.2

getpeername.2

getsockname.2

Michael Kerrisk

Use consistent argument names

Most other sockets pages are using the names 'addr'
and 'addrlen'; make these pages do the same.

getpeername.2

getsockname.2

getsockopt.2

recv.2

send.2

shutdown.2

socketatmark.3

socket.7

udplite.7

Michael Kerrisk

SYNOPSIS: Rename socket file descriptor argument to 'sockfd'

Many sockets man pages use the name 'sockfd' already.

For consistency, changes the others to do so as well.

gnu_dev_major.3

gnu_dev_makedev.3

gnu_dev_minor.3

major.3

minor.3

Michael Kerrisk

New links to new makedev(3) page

Changes to individual pages

_exit.2

Michael Kerrisk

Since glibc 2.3, the exit() wrapper function invokes exit_group(2)

This information is useful to users of strace(1).

accept.2

Michael Kerrisk

Clarify details when returned address is truncated

If the returned address is truncated, the 'addrlen' argument indicates the actual size of the address, rather than a count of the number of bytes in the truncated buffer.

Also clarify that if 'addr' argument is NULL, then 'addrlen' should be unused, and should also be NULL.

Michael Kerrisk

Reorder ERRORS list

Some errors were listed under a separate "may" heading.

There's probably no real need to do this; integrate those errors into the main list.

exit_group.2

Michael Kerrisk

Note that since glibc 2.3, exit(2) invokes exit_group()

futex.2

Michael Kerrisk

Mention that glibc provides no wrapper function for futex()

get_thread_area.2

Michael Kerrisk

Note that glibc provides no wrapper for this system call

getdomainname.2

Michael Kerrisk

Substantial rewrite

Expand description of setdomainname() and getdomainname().

Note that getdomainname() is implemented as a library function in glibc.

Note limits on size of domain name.

Reorganize ERRORS list.

gethostname.2

Michael Kerrisk

Various parts rewritten

Write a paragraph describing sethostname().

Clarify differences between glibc's gethostbyname() and the kernel gethostbyname() system calls.

gethostname.2

Michael Kerrisk

Note that HOST_NAME_MAX is 64 on Linux

Also note that in pre-1.0 days, the limit on hostnames was 8 bytes.

getpeername.2

Michael Kerrisk

Note that returned address may be truncated if buffer is too small

getsid.2

Michael Kerrisk

Simplified version information and moved to a new VERSIONS section

getsockname.2

Michael Kerrisk

Note that returned address is truncated if buffer is too small

mknod.2

Michael Kerrisk

Refer reader to makedev(3) to build a device ID

mmap.2

Michael Kerrisk

Loosen language around how 'addr' hint is interpreted

Mel Gorman reported that in Linux 2.6.27, 'addr' is rounded down to a page boundary.

Before kernel 2.6.26, if 'addr' was taken as a hint, it was rounded up to the next page boundary. Since Linux 2.6.24, it is rounded down. Therefore, loosen the description of this point to say that the address is rounded to "a nearby page boundary".

open.2

Michael Kerrisk

EFBIG error is now EOVERFLOW (since Linux 2.6.24)

When a 32-bit app opens a file whose size is too big to be represented in 31-bits, POSIX.1 specifies the error EOVERFLOW. Linux used to give EFBIG for this case, but 2.6.24 fixed this.

Also, add some text to describe the error scenario in more detail.

pread.2

Michael Kerrisk

Note that glibc emulation for these calls uses lseek(2)

(This makes it clearer that the emulated calls are not atomic.)

recv.2

send.2

Michael Kerrisk

Make names of "address" and "address length" args more consistent

Make the names of these arguments more consistent with other sockets man pages.

recv.2

Michael Kerrisk

Clarify details when returned address is truncated

If the recvfrom() returned address is truncated, the 'fromlen' argument indicates the actual size of the address, rather than a count of the number of bytes in the truncated buffer.

Also clarify that the 'from' argument can be NULL, in which case 'fromlen' should be unused, and should also be NULL.

Michael Kerrisk

Internet datagram and netlink sockets support MSG_TRUNC for recv(2)

Internet datagram (since Linux 2.4.27/2.6.8),
and netlink (since Linux 2.6.22) sockets support
the MSG_TRUNC flag for recv(2).

select.2

Michael Kerrisk

Rewrote text describing feature test macros requirement for pselect()

select_tut.2

Michael Kerrisk

Fix SHUT_FD* macros in example program
Add "do { } while (0)"

set_thread_area.2

Michael Kerrisk

Note that glibc provides no wrapper for this system call

setfsuid.2

setfsuid.2

Michael Kerrisk

Simplify version information and move to a VERSIONS section

setsid.2

Michael Kerrisk

Rework RETURN VALUE section; add an ERRORS section

setup.2

Michael Kerrisk

Relocate some CONFORMING TO text to VERSIONS and NOTES

stat.2

Michael Kerrisk

Document EOVERFLOW error

Michael Kerrisk

Refer reader to major() and minor() to decompose a device ID

syscalls.2

Michael Kerrisk

Fix version numbers for a few system calls
Some 2.6 system calls were wrongly mentioned as also being
backported into a 2.4.x kernel.

uname.2

Michael Kerrisk

DESCRIPTION: Point reader at NOTES for further info on field lengths

atan.3

Andries E. Brouwer

Fix return value description

The correct range for the return value is $[-\pi/2, \pi/2]$.
(mtk's fix in the last change to the return value text was
a botch-up of a (correct) suggestion by Nicolas François.)

atexit.3

Michael Kerrisk

atexit() and on_exit(3) register functions on the same list

Michael Kerrisk

Terminating registered function using longjmp() is undefined
According to POSIX.1, using longjmp() to terminate execution of
a function registered using atexit() produces undefined results.

Michael Kerrisk

Calling exit(3) more than once produces undefined results
If an exit handler itself calls exit(3), the results are
undefined (see the POSIX.1-2001 specification of exit(3)).

Michael Kerrisk

The same exit handler may be registered multiple times

Michael Kerrisk

Calling _exit(2) terminates processing of exit handlers

Michael Kerrisk

Terminating registered function using longjmp() is undefined
According to POSIX.1, using longjmp() to terminate execution of
a function registered using atexit() produces undefined results.

bindresvport.3

Mats Wichmann

SYNOPSIS: $s^{\backslash}^{\backslash}^{\backslash}^{\backslash}$ in prototype

Michael Kerrisk

Fix errors regarding port used, plus other rewrites
Glibc's bindresvport() takes no notice of $sin \rightarrow sin_port$:
it always returns an arbitrary reserved port in the
anonymous range (512-1023). (Reported by Mats Wichmann.)

Also:

- * Add EADDRINUSE and EACCES errors.
- * Mention use of getsockname(2).
- * Other minor rewrites and reorderings of the text.
- * Explicitly note that glib's bindresvport() ignores
 $sin \rightarrow sin_port$.
- * Change license There's now virtually no text remaining from
the 1.70 version of this page.

Reviewed-by: Mats Wichmann

Reviewed-by: Petr Baudis

dlopen.3

Petr Baudis

Describe confusing dladdr() behavior

dladdr() will act unexpectedly if called from non-pic code on a compile-time-generated function pointer.

fmemopen.3

Michael Kerrisk

Add VERSIONS section

Petr Baudis

SEE OPEN: Add fopencookie(3)

fopencookie(3) is used to implement fmemopen().

fopen.3

Petr Baudis

SEE ALSO: Add fmemopen(3) and fopencookie(3)

fopencookie.3

Petr Baudis

fopencookie() needs `_GNU_SOURCE` feature test macro

getaddrinfo.3

Petr Baudis

Document results ordering and `/etc/gai.conf`

This patch documents the order of the `getaddrinfo(3)` results (RFC 3484), how should the application deal with that, mentions the extremely common cause of having multiple results per query (both IPv4 and IPv6 addresses available) and mentions `/etc/gai.conf`.

(mtk: Minor tweaks, and note glibc version for `/etc/gai.conf`)

isatty.3

Michael Kerrisk

Complete rewrite of this page, with rather more detail

memmem.3

Michael Kerrisk

Remove sentence saying that libc 5.0.9 is still widely used

That was a **long** time ago.

on_exit.3

Michael Kerrisk

Document handling of registrations on `fork(2)` and `execve(2)`

Treatment in these cases is the same as for `atexit(3)`.

Michael Kerrisk

Arg given to registered function is status from **last** call to `exit()`

It's a subtle point, but if a registered function itself

calls `exit(3)`, then subsequent functions that were registered

with `on_exit(3)` will see the exit status given to the more recent `exit(3)` call.

Michael Kerrisk

Note that same function may be registered multiple times

setlocale.3

locale.7

Michael Kerrisk

Clean up the description of LANGUAGE environment variable

Clean up the \$LANGUAGE description, by removing bogus comments from `setlocale(3)` and expanding the mention in `locale(7)`.

Maybe you will decide that a more detailed description should be left to the `gettext(3)` documentation, but I actually care about the invisible part of the patch more since the comments have put me off the track initially (\$LANGUAGE has nothing to do with `setlocale(3)` and is completely isolated to `gettext`, as obvious from the glibc sources).

proc.5

Michael Kerrisk

/proc/stat: s/minor/disk_idx/ in description of /proc/stat

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=225619>

capabilities.7

Drake Wilson

Various minor fixes as per Debian bug 471029

The relevant pieces of

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=471029> are:

- Delete duplicate subentry for KEYCTL_CHOWN/KEYCTL_SETPERM operations in the CAP_SYS_ADMIN entry. (It feels like that capability entry should be converted to a list, but I've left it in semicolon-delimited form for now.)
- Remove text about ENFILE from the text about the /proc/sys/fs/file-max limit in the CAP_SYS_ADMIN entry, since this is already described in the man pages for the relevant ofile-creating system calls.
- Correct or clarify a few other bits of grammar and such; see the diff file itself for details.

socket.7

Michael Kerrisk

SEE ALSO: add `tcp(7)` and `udp(7)`

tcp.7

Michael Kerrisk

Relocate out-of-band data discussion

Move to a new subsection entitled "Sockets API".

Michael Kerrisk

Note that MSG_PEEK can be used on out-of-band data

time.7

Michael Kerrisk

SEE ALSO: add clock_gettime(3)

unix.7

Michael Kerrisk

Unix domain sockets don't support the recv() MSG_TRUNC flag

Michael Kerrisk

Retitled subsection "(Un)supported features" to "Sockets API"

This is consistent with the recent change in tcp(7).

===== Changes in man-pages-3.16 =====

Released: 2009-01-13, Christchurch

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Petr Baudis <pasky@suse.cz>

Apologies if I missed anyone!

New and rewritten pages

pthread_getcpuclockid.3

Michael Kerrisk

New page documenting pthread_getcpuclockid(3)

libc.7

Michael Kerrisk

New page giving brief overview of C libraries on Linux

rtld-audit.7

Michael Kerrisk

New page documenting dynamic linker auditing API

Newly documented interfaces in existing pages

ld.so.8

Petr Baudis

Document LD_AUDIT

Petr Baudis

Document LD_POINTER_GUARD

New and changed links

gethostid.2

Michael Kerrisk

New link to new page location in Section 3

sethostid.2

Michael Kerrisk

Change link to point to new page location in Section 3

sethostid.3

Michael Kerrisk

New link to relocated page in Section 3

glibc.7

Michael Kerrisk

New link to new libc.7

Global changes

syscalls.2

feature_test_macros.7

standards.7

Michael Kerrisk

SEE ALSO: add libc(7)

dlopen.3

ld.so.8

Michael Kerrisk

SEE ALSO: add rtd-audit(7)

Changes to individual pages

gethostid.2

Michael Kerrisk

Move to Section 3

The interfaces documented in this page are purely glibc.

syscalls.2

Michael Kerrisk

Kernel 2.6.28 adds accept4()

clock_getres.3

Michael Kerrisk

SEE ALSO: Add pthread_getcpuclockid(3)

fmemopen.3

Michael Kerrisk

Fix VERSIONS information

gethostid.3

Michael Kerrisk

Before version 2.2, glibc stored the host ID in /var/adm/hostid

Also: rewrite some text describing the /etc/hostid file, so that this location is referred to just once on the page.

Michael Kerrisk

RETURN VALUE: describe return value of sethostid()

Michael Kerrisk

Added BUGS section noting that ID can't be guaranteed to be unique

Michael Kerrisk

Added ERRORS section describing errors for sethostid()

Michael Kerrisk

Update section number to reflect relocation into Section 3

printf.3

Michael Kerrisk

Source and destination buffers may not overlap for `*s*printf()`

http://sourceware.org/bugzilla/show_bug.cgi?id=7075

Some existing code relies on techniques like the following to append text to a buffer:

```
$ cat s.c
#include <stdio.h>
char buf[80] = "not ";
```

```
main()
{
    sprintf(buf, "%sfail", buf);
    puts(buf);
    return 0;
}
```

```
$ cc s.c
$ ./a.out
not fail
```

However, the standards say the results are undefined if source and destination buffers overlap, and with suitable compiler options, recent changes can cause unexpected results:

```
$ cc -v 2>&1 | grep gcc
gcc version 4.3.1 20080507 (prerelease) [gcc-4_3-branch revision 135036] (SUSE Linux)
$ cc -D_FORTIFY_SOURCE -O2 s.c
$ ./a.out
fail
```

readdir.3

Michael Kerrisk

Rewrite text describing 'dirent' fields standardized in POSIX.1

Michael Kerrisk

Clarify text for return value/errno setting for end-of-stream case

nscd.8

Petr Baudis

Correct NOTES section on reloading configuration files

It behaved this way at least since

"Sun Oct 18 15:02:11 1998 +0000",

some four months after including the nscd implementation

in glibc. But there does seem to be a short window between

glibc-2.1 and glibc-2.1.3 when nscd -i was not available,

I don't think it's worth muddling the point of the page

with that, though.

==== Changes in man-pages-3.17 =====

Released: 2009-01-19, Hobart

Contributors

The following people contributed notes, ideas, or patches that have

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Vegard Nossum <vegard.nossum@gmail.com>

Apologies if I missed anyone!

New and rewritten pages

endian.3

Michael Kerrisk

New page documenting byte order conversion functions

Document functions (new in glibc 2.9) for conversion between
host byte order and big-/little- endian byte order:

htobe16(), htole16(), be16toh(), le16toh(),
htobe32(), htole32(), be32toh(), le32toh(),
htobe64(), htole64(), be64toh(), le64toh()

getifaddrs.3

Petr Baudis

New page documenting getifaddrs(3) and freeifaddrs(3)

Many edits and changes of Petr's initial draft by mtk

cp1251.7

Lefteris Dimitroulakis

New page documenting CP 1251 (Windows Cyrillic) character set

iso-8859-10.7

Lefteris Dimitroulakis

New page documenting ISO 8859-10 character set

iso_8859-13.7

Lefteris Dimitroulakis

New page documenting ISO 8859-13 character set

iso_8859-14.7

Lefteris Dimitroulakis

New page documenting ISO 8859-14 character set

iso_8859-3.7

Lefteris Dimitroulakis

New page documenting ISO 8859-3 character set

iso_8859-5.7

Lefteris Dimitroulakis

New page documenting ISO 8859-5 character set

iso_8859-8.7

Lefteris Dimitroulakis

New page documenting ISO 8859-8 character set

koi8-u.7

Lefteris Dimitroulakis

New page documenting KOI8-U character set

Newly documented interfaces in existing pages

epoll.7

Michael Kerrisk

Document /proc interfaces for limiting kernel memory usage

Document the following /proc files that were added in

Linux 2.6.28:

/proc/sys/fs/epoll/max_user_instances

/proc/sys/fs/epoll/max_user_watches

netdevice.7

Michael Kerrisk

Document recently added interface flags

IFF_LOWER_UP (since Linux 2.6.17)

IFF_DORMANT (since Linux 2.6.17)

IFF_ECHO (since Linux 2.6.25)

Documentation taken from comments in <linux/if.h>

New and changed links

freeifaddrs.3

Michael Kerrisk

New link to new getifaddrs.3

htobe16.3

htole16.3

be16toh.3

le16toh.3

htobe32.3

htole32.3

be32toh.3

le32toh.3

htobe64.3

htole64.3

be64toh.3

le64toh.3

Michael Kerrisk

New links to new endian.3

iso-8859-10.7

iso_8859_10.7

latin6.7

Michael Kerrisk

New links to new iso_8859-10.7

iso-8859-13.7

iso_8859_13.7

latin7.7

Michael Kerrisk

New links to new iso_8859-13.7

iso-8859-14.7

iso_8859_14.7

latin8.7

Michael Kerrisk

New links to new iso_8859-14.7

iso-8859-3.7

iso_8859_3.7

latin3.7

Michael Kerrisk

New links to new iso_8859-3.7

iso-8859-5.7

iso_8859_5.7

Michael Kerrisk

New links to new iso_8859-5.7

iso-8859-8.7

iso_8859_8.7

Michael Kerrisk

New links to new iso_8859-8.7

Changes to individual pages

bind.2

Michael Kerrisk

SEE ALSO: Add getifaddrs(3)

epoll_create.2

Michael Kerrisk

Document EMFILE error

This error is encountered when the limit imposed by `/proc/sys/fs/epoll/max_user_instances` is encountered.

Michael Kerrisk

Clarify distinction between epoll instance and epoll file descriptor

Reword so that the notion of an epoll instance is made clear, and made distinct from the notion of an epoll file descriptor.

Some other minor rewordings also.

epoll_ctl.2

Michael Kerrisk

Reordered parts of the text

Michael Kerrisk

Introduce notion of epoll instance

Introduce notion of epoll instance as distinct from epoll file descriptor. Plus other wording clean-ups.

Michael Kerrisk

Document ENOSPC error (new in Linux 2.6.28)

This error results when the limit imposed by `/proc/sys/fs/epoll/max_user_watches` is encountered.

epoll_wait.2

Michael Kerrisk

Introduce the notion of an epoll instance into text

getdents.2

Michael Kerrisk

Before kernel < 2.6.4, 'd_type' was effectively always DT_UNKNOWN

gethostid.2

Michael Kerrisk

Rename file (was misnamed gethostd.2 in previous release)

getsockname.2

Michael Kerrisk

SEE ALSO: Add getifaddrs(3)

signalfd.2

Michael Kerrisk

Fix description of fork() semantics

The page text described the semantics of the initial implementation of signalfd(). These were changed early on, but the man page wasn't updated.

byteorder.3

Michael Kerrisk

SEE ALSO: add endian(3)

longjmp.3

Michael Kerrisk

Clarify wording re saving/restoring signal mask

Michael Kerrisk

siglongjmp() restores signal mask iff 'savesigs' was non-zero

Note that siglongjmp() restores signal mask if, and only if, 'savesigs' argument of sigsetjmp() was non-zero. (Previous text omitted the "and only if".)

memccpy.3

Michael Kerrisk

Fix CONFORMING TO: s/C99/POSIX.1-2001/

Michael Kerrisk

If the memory areas overlap, the results are undefined

sethostid.3

Michael Kerrisk

Rename file (was misnamed sethostd.3 in previous release)

setjmp.3

Michael Kerrisk

Clarify wording re saving/restoring signal mask

Michael Kerrisk

Clarify when setjmp() provides BSD vs System V signal mask semantics

strsep.3

Michael Kerrisk

BUGS: explicitly list problems afflicting strsep()

Previously, the page said this function suffered the same problems as strtok(), but in fact strsep() doesn't suffer from all of the same problems as strtok(), so explicitly list just the problems of strsep() in the strsep.3 page.

proc.5

Michael Kerrisk

Add pointer to epoll(7) for description of epoll /proc files

epoll.7

Michael Kerrisk

Various wording changes to improve clarity and consistency

===== Changes in man-pages-3.18 =====

Released: 2009-02-10, Christchurch

Contributors

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Apologies if I missed anyone!

New and rewritten pages

armSCII-8.7

Lefteris Dimitroulakis

New page documenting ArmSCII-8 character set

iso_8859-11.7

Lefteris Dimitroulakis

New page documenting ISO 8859-11 character set

iso_8859-4.7

Lefteris Dimitroulakis

New page documenting ISO 8859-4 character set

iso_8859-6.7

Lefteris Dimitroulakis

New page describing ISO 8859-6 character set

pthread_kill.3

Michael Kerrisk

New page documenting pthread_kill(3)

pthread_kill_other_threads_np.3

Michael Kerrisk

New page documenting pthread_kill_other_threads_np(3)

pthread_sigmask.3

Michael Kerrisk

New page documenting pthread_sigmask(3)

Newly documented interfaces in existing pages

clock_getres.3

Michael Kerrisk

Document CLOCK_MONOTONIC_RAW, new in 2.6.28

New and changed links

clock_gettime.2

clock_settime.2

clock_getres.3

clock_gettime.3

clock_settime.3

Michael Kerrisk

Update links to reflect the fact that clock_* pages are now in
Section 2

iso-8859-11.7

iso_8859_11.7

Michael Kerrisk

New links to new iso_8859-11.7

iso-8859-4.7

iso_8859_4.7

latin4.7

Michael Kerrisk

New links to new iso_8859-4.7

iso-8859-6.7

iso_8859_6.7

Michael Kerrisk

New links to new iso_8859-6.7

tis-620.7

Michael Kerrisk

New link to new iso_8859-11.7

Global changes

clock_nanosleep.2

getrusage.2

timerfd_create.2

clock.3

clock_getcpuclockid.3

ftime.3

pthread_create.3

pthread_getcpuclockid.3

pthread_tryjoin_np.3

sem_wait.3

time.7

Michael Kerrisk

Global fix: Fix xrefs to clock_*.? pages to reflect move to section 2

clock_nanosleep.2

execve.2

fork.2

nanosleep.2

sigaction.2

timerfd_create.2

pthread_getcpuclockid.3

ualarm.3

usleep.3

pthreads.7

time.7

Michael Kerrisk

Global fix: s/(3)/(2)/ in section number xrefs for timer_*(`)` API

The POSIX timers API is implemented (mostly) within the kernel, so these interfaces are system calls. Although there are as yet no man pages, when they are added they should be in Section 2, not 3. Therefore fix those pages that currently refer to these interfaces as being in Section 3.

Changes to individual pages

capget.2

Andi Kleen

Add some details and relocate a paragraph

While writing a little program using capset
I found the capset manpage quite light on crucial
details and I had to resort to RTFS.

This patch improves the points I found unclear
and also moves one misplaced paragraph around.

clock_getres.2

Michael Kerrisk

Move page from Section 3 to Section 2

eventfd.2

Michael Kerrisk

glibc eventfd() supports the use of eventfd2() since version 2.9

fork.2

Michael Kerrisk

SEE ALSO: add daemon(3)

getdents.2

Michael Kerrisk

Remove unneeded HAVE_D_TYPE from example program
Since d_type will always just return DT_UNKNOWN before
kernel 2.6.4, we don't need to use a conditional for
determining whether we use this flag.

nanosleep.2

Michael Kerrisk

Relocated misplaced BUGS heading

select_tut.2

Michael Kerrisk

Clean up error checking in example program (no semantic changes)

Michael Kerrisk

Many parts tidied and rewritten
Remove some redundant text, clarify various pieces,
tidy example code, etc.

Michael Kerrisk

Bug fixes + rewrites in example program
Sebastien pointed out that the first example program

wrongly thinks it can count signals.
Also, some further rewrites by mtk.

socket.2

Michael Kerrisk

BUGS: Remove discussion SOCK_UUCP

As time goes on, this sentence becomes less a piece of humor,
and more a puzzle.

stat.2

Michael Kerrisk

Note that open(O_NOATIME) also causes st_atime not to be updated

timerfd_create.2

Michael Kerrisk

Add BUGS noting that timerfd supports fewer clock types than
timer_create()

btowc.3

Michael Kerrisk

SEE ALSO: add wctob(3)

clock_getcpuclockid.3

Michael Kerrisk

SEE ALSO: add pthread_getcpuclockid(3)

cos.3

Michael Kerrisk

SEE ALSO: add sincos(3)

fexecve.3

Timo Sirainen

Note that fexecve() depends on a mounted /proc

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=514043>

Michael Kerrisk

CONFORMING TO: note addition of fexecve() in POSIX.1-2008

Michael Kerrisk

'fd' must be opened read-only and refer to a file that is executable

fmemopen.3

Michael Kerrisk

CONFORMING TO: note that these functions are in POSIX.1-2008

getifaddrs.3

Lucio Maciel

Fix memory leak in example program

Petr Baudis

Various small fixes

getpwnam.3

Michael Kerrisk

SEE ALSO: add getspname(3)

getumask.3

Michael Kerrisk

Updated glibc version number in NOTES

ilogb.3

Michael Kerrisk

SEE ALSO: add significand(3)

intro.3

Michael Kerrisk

SEE ALSO: add libc(7)

isalpha.3

Michael Kerrisk

Fix statement that isalpa() is obsolete; should be isascii()

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=512709>

Michael Kerrisk

SEE ALSO: add toascii(3)

mq_notify.3

Michael Kerrisk

Add cross reference to pthread_attr_init(3)

pthread_attr_setaffinity_np.3

Michael Kerrisk

SYNOPSIS: Fix declaration of 'attr'

pthread_getcpuclockid.3

Michael Kerrisk

SYNOPSIS: fix type of 'thread'

qsort.3

Michael Kerrisk

EXAMPLE: remove unnecessary "#include <unistd.h>"

random.3

Michael Kerrisk

SEE ALSO: add random_r(3)

remainder.3

Michael Kerrisk

SEE ALSO: add div(3)

scandir.3

Michael Kerrisk

CONFORMING TO: alphasort() and scandir() are added to POSIX.1-2008

Michael Kerrisk

CONFORMING TO: note that versionsort() was added to glibc in version 2.1

sem_wait.3

Michael Kerrisk

SEE ALSO: add clock_gettime(2)

significand.3

Michael Kerrisk

Add CONFORMING TO noting that this function is unstandardized

sigwait.3

Michael Kerrisk

Add EXAMPLES section referring to pthread_sigmask(3)

sin.3

Michael Kerrisk

SEE ALSO: add sincos(3)

stpcpy.3

Michael Kerrisk

Add BUGS section noting the possibility of buffer overruns

Michael Kerrisk

Add missing pieces/fix various problems in example program

Michael Kerrisk

CONFORMING TO: stpcpy() is nowadays on the BSDs

Michael Kerrisk

SEE ALSO: add stpcpy.3

wscasecmp.3

Michael Kerrisk

CONFORMING TO: note that this function is added in POSIX.1-2008

wcsdup.3

Michael Kerrisk

CONFORMING TO: note that this function was added in POSIX.1-2008

wcsncasecmp.3

Michael Kerrisk

CONFORMING TO: note that this function is added in POSIX.1-2008

wctob.3

Michael Kerrisk

SEE ALSO: add btowc(3)

proc.5

Michael Kerrisk

Remove mention of epoll/max_user_instances
(Since this interface appeared in 2.6.28, and then
disappeared in 2.6.29.)

ascii.7

Michael Kerrisk

Update SEE ALSO list to include pages added in 3.17

Michael Kerrisk

SEE ALSO: add recently added iso_8859-*(7) pages

epoll.7

Michael Kerrisk

remove documentation of /proc/sys/fs/epoll/max_user_instances
This /proc interface appeared in 2.6.28. but will be
removed in 2.6.29.

Also, document change in default value of
/proc/sys/fs/epoll/max_user_watches (was 1/32 of lowmem,
now 1/25 of lowmem).

koi8-r.7

Michael Kerrisk

SEE ALSO: add koi8-u(7); remove crufty text

standards.7

Michael Kerrisk

Update to note that latest POSIX/SUS was ratified in 2008

time.7

Michael Kerrisk

SEE ALSO: add pthread_getcpuclockid(3)

==== Changes in man-pages-3.19 =====

Released: 2009-02-20, Putaruru

Contributors

The following people contributed notes, ideas, or patches that have
been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

timer_create.2

Michael Kerrisk

New page documenting timer_create(2)

timer_delete.2

Michael Kerrisk

New page documenting timer_delete(2)

timer_getoverrun.2

Michael Kerrisk

New page documenting timer_getoverrun(2)

timer_settime.2

Michael Kerrisk

New page documenting timer_settime(2) and timer_gettime(2)

New and changed links

timer_gettime.2

Michael Kerrisk

New link to new timer_settime.2

Global changes

Various pages

Kir Kolyshkin

Trivial punctuation fixes in SEE ALSO

In SEE ALSO, when a few man pages are referenced, those
are divided by commas. Every reference is on a separate

line, and all lines but the last one should end with comma. I spotted one place where there is no comma in between references, and mocked up an awk script to find similar places:

```
for f in man*/*; do
  awk '
    /^.SH ["']SEE ALSO["']/ {
      sa=1; print "==" FILENAME " =="; print; next
    }
    /^\. (PP|SH)/ {
      sa=0; no=0; next
    }
    /^\.BR/ {
      if (sa==1) {
        print;
        if (no == 1)
          print "Missing comma in " FILENAME " +" FNR-1; no=0
      }
    }
    /^\.BR .*$/ {
      if (sa==1)
        no=1;
      next
    }
    /\.\\"/ {next}
    /\.*/ {
      if (sa==1) {
        print; next
      }
    }
  ' $f;
done | fgrep 'Missing comma'
```

This patch fixes all the places found by the above script.

Also, there is an extra dot at the end of uri.7 "SEE ALSO" section. Removed as per man-pages(7) recommendation.

Changes to individual pages

getitimer.2

clock_getcpuclid.3

time.7

Michael Kerrisk

SEE ALSO: add timer_create(2)

gettimer.2

Michael Kerrisk

Rename arguments for consistency with other timer pages
Also some other minor wording improvements

splice.2

Mark Hills

ERRORS: Add EINVAL case for file opened O_APPEND
Target file cannot be opened in append (O_APPEND) mode

In kernels prior to v2.6.27 splice() to a file in
append mode is broken, and since that version it is
disallowed. It is possible this behaviour may change
in the future; see the kernel commit message
(efc968d450e013049a662d22727cf132618dcb2f) for more
information.

syscalls.2

Michael Kerrisk

Note that getpmsg(2) and putmsg(2) are unimplemented
See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=514771>

timerfd_create.2

Michael Kerrisk

ERRORS: add EFAULT

timerfd_create.2

Michael Kerrisk

Rename timerfd_settime() 'curr_value' arg to 'old_value'
For consistency with related pages.

vm86.2

Parag Warudkar

CONFORMING TO: Add 32-bit specific
Note that this call is only on *32-bit* Intel

mq_open.3

Michael Kerrisk

ERRORS: add ENOENT error for name == "/"

mq_open.3

Michael Kerrisk

ERRORS: Add EACCES error for name containing > 1 slash

sem_open.3

Michael Kerrisk

ERRORS: add EINVAL error where name == "/"

sem_open.3

Jens Thoms Toerring

Add case of non-well-formed name to ENOENT

shm_open.3

Michael Kerrisk

Clarify rules for construction of shared memory object names

proc.5

Michael Kerrisk

Add description of /proc/sys/kernel/sysrq

Reported by: Goerghe Cosorea <gheorghe.cosorea@gmail.com>

proc.5

Michael Kerrisk

Put /proc/modules entry in correct alphabetical order

ascii.7

Kir Kolyshkin

Fix formatting of tables on second page to use monospaced font

mq_overview.7

Michael Kerrisk

Clarify construction rules for message queue object names

sem_overview.7

Michael Kerrisk

Clarify construction rules for semaphore object names

See also

http://groups.google.com/group/comp.os.linux.development.apps/browse_thread/thread/b4a67caa765cb65f

==== Changes in man-pages-3.20 =====

Released: 2009-03-31, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

cpuid.4

Andi Kleen

New page for cpuid access device

msr.4

Andi Kleen

New page documenting x86 CPU MSR access device

Newly documented interfaces in existing pages

proc.5

Américo Wang

Document /proc/sys/vm/swappiness

Michael Kerrisk

Document /proc/sysrq-trigger

Global changes

timer_create.2
timer_delete.2
timer_getoverrun.2
timer_settime.2
numa.7

Michael Kerrisk

Make source layout of 'Link with' text consistent with other pages
No actual change to formatted output, but this makes the
page sources more consistent for the purpose of grepping, etc.

mempcpy.3
signbit.3
significand.3

Michael Kerrisk

Global fix: acknowledge FSF in copyright

These pages are heavily based on original material in
glibc info pages, but the comments in the source of the pages
did not acknowledge the FSF copyright on the original material.
Fix that.

accept.2
read.2
recv.2
send.2
write.2

Michael Kerrisk

Fix discussion of EAGAIN/EWOULDBLOCK errors

For a non-blocking socket, POSIX.1-2001/2008 allow either
EAGAIN or EWOULDBLOCK to be returned in cases where a call
would have blocked. Although these constants are defined
with the same value on most Linux architectures (PA-RISC
is the exception), POSIX.1 does not require them to have
the same value. Therefore, a portable application using
the sockets API should test for both errors when checking
this case.

(NB POSIX.1 only mentions EWOULDBLOCK in the context of
the sockets interfaces.)

Change made after a note cross-posted on linux-arch@vger,
<http://thread.gmane.org/gmane.linux.debian.ports.hppa/5615>
and a suggestion for write(2) from Carlos O'Donnell

basename.3
getgrent.3
getgrnam.3

getpwent.3

getpwnam.3

readdir.3

Michael Kerrisk

Note that returned pointer should not be given to free()

armSCII-8.7

cp1251.7

iso_8859-10.7

iso_8859-11.7

iso_8859-13.7

iso_8859-14.7

iso_8859-15.7

iso_8859-16.7

iso_8859-2.7

iso_8859-3.7

iso_8859-4.7

iso_8859-5.7

iso_8859-6.7

iso_8859-7.7

iso_8859-8.7

iso_8859-9.7

koi8-r.7

koi8-u.7

Michael Kerrisk

Add explicit character set encoding to first line of source

Nowadays mandb has provision to understand a character set encoding that is explicitly indicated in the first line of the source. As pointed out by Colin Watson, including such an explicit indication on pages encoded in anything other than ISO 8859-1 or UTF-8 is useful for man-pages that aren't shipped in UTF-8.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=519209> and for some other background (responded to by Colin Watson in the above report):

<http://thread.gmane.org/gmane.comp.internationalization.linux/6040> ("man page encoding", 5 Jul 2005)

Changes to individual pages

fallocate.2

Michael Kerrisk

VERSIONS: glibc support is provided since version 2.10

fcntl.2

Michael Kerrisk

Remove mention of EWOULDBLOCK from discussion of mandatory locking

In the kernel, the error on encountering a mandatory lock is EAGAIN. Although EAGAIN and EWOULDBLOCK are the same on most Linux architectures, on some they are not, so don't mention EWOULDBLOCK as it is misleading. (Mea culpa.)

getcontext.2

Michael Kerrisk

Note that POSIX.1-2008 removes the specification of getcontext()

getitimer.2

Michael Kerrisk

Note that POSIX.1-2008 recommends POSIX timers API instead of this API

gettimeofday.2

Michael Kerrisk

Note that POSIX.1-2008 recommends clock_gettime() instead of this API

ptrace.2

Michael Kerrisk

Note use of 'data' for PTRACE_SYS{CALL,EMU} and PTRACE_*_SINGLESTEP
These operations use the 'data' argument as a signal number, like PTRACE_CONT.

ptrace.2

Mike Frysinger

only reference <sys/user.h>

The kernel no longer installs linux/user.h, so update references to sys/user.h.

recv.2

Michael Kerrisk

Add 'iovec' defn to defn of 'msghdr' structure

The 'msghdr' structure includes a field of type 'iovec', so show the definition of that structure in this page.

rename.2

Michael Kerrisk

Make ENOENT description consistent with POSIX.1-2008

timerfd_create.2

Michael Kerrisk

ERRORS: add EINVAL for invalid 'flags' for timer_settime()

truncate.2

Michael Kerrisk

SYNOPSIS: Fix description of feature test macro requirements

After a report by Arvid Norlander.

bcopy.3

Michael Kerrisk

Note that POSIX.1-2008 removes specification of bcopy()

bsd_signal.3

Michael Kerrisk

Note that POSIX.1-2008 recommends sigaction(2) instead of this API

ctime.3

Michael Kerrisk

Note that POSIX.1-2008 recommends strftime(3) instead of these functions

ecvt.3

Michael Kerrisk

Note that POSIX.1-2008 recommends sprintf(3) instead of these functions

gcvt.3

Michael Kerrisk

Note that POSIX.1-2008 recommends sprintf(3) instead of this function

getcwd.3

Michael Kerrisk

Note that getcwd() should be used instead of the obsolete getwd()

getgrent.3

Michael Kerrisk

Returned buffer may be statically allocated and overwritten by later calls

gethostbyname.3

Michael Kerrisk

POSIX.1-2008 recommends getaddrinfo(3) and getnameinfo(3) instead

getnetent_r.3

Michael Kerrisk

Fix function name in text: s/getnetbynumber_r/getnetbyaddr_r/
The SYNOPSIS showed the right function name (getnetbyaddr_r),
but the text repeatedly used the wrong name (getnetbynumber_r).
Probably, this was a cut-and-paste error.

getpwent.3

Michael Kerrisk

Returned buffer may be statically allocated and overwritten by later calls

index.3

Michael Kerrisk

Note that POSIX.1-2008 recommends `strchr(3)` and `strchr(3)` instead

isalpha.3

Michael Kerrisk

Explain why POSIX.1-2008 marks `isascii(3)` obsolete

lockf.3

Nikanth Karthikesan

Update pointer to documentation in kernel source

makecontext.3

Michael Kerrisk

Note that POSIX.1-2008 recommends the use of POSIX threads instead

mq_notify.3

Michael Kerrisk

Document the POSIX.1-2008 optional `EINVAL` error
POSIX.1-2008 allows an optional `EINVAL` error if
`notification==NULL` and the caller is not currently
registered to receive notifications.

posix_fallocate.3

Michael Kerrisk

Clarify that `EINVAL` also occurs of 'len' *equals* zero
See http://bugzilla.kernel.org/show_bug.cgi?id=12919

posix_fallocate.3

Michael Kerrisk

Document POSIX.1-2001 and POSIX.1-2008 specifications for `EINVAL` error
See http://bugzilla.kernel.org/show_bug.cgi?id=12919

posix_memalign.3

Michael Kerrisk

Document handling of `size==0` case for `posix_memalign()`

pthread_exit.3

Michael Kerrisk

Fix error in DESCRIPTION: `s/pthread_create/pthread_exit/`

realpath.3

Michael Kerrisk

Rework `resolved_path==NULL` discussion w.r.t. POSIX.1-200[18]
Although the page already mentioned the `resolved_path==NULL`
feature, and that this feature was added in POSIX.1-2008, there
was still some crufty text in BUGS that hadn't been updated to
reflect the POSIX.1-2008 changes.

Also, some other minor wording and grammar fixes.

scalb.3

Michael Kerrisk

Note that POSIX.1-2008 recommends `scalbln*(3)` instead

seekdir.3

Michael Kerrisk

SYNOPSIS: Fix type of 'offset' argument: `s/off_t/long/`

And add a NOTES section pointing out that 'off_t'

was indeed used in glibc 2.1.1 and earlier.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=519230>

sem_post.3

Michael Kerrisk

Document EOVERFLOW error

shm_open.3

Michael Kerrisk

Recast discussion on name length to exclude terminating NULL byte

Probably it's clearer to describe the length of the IPC object

name as a count that excludes the null terminator.

siginterrupt.3

Michael Kerrisk

Note that POSIX.1-2008 recommends `sigaction()` instead

sigset.3

Michael Kerrisk

Note APIs that POSIX.1-2008 recommends instead of these obsolete APIs

strftime.3

Michael Kerrisk

Small fix to description of %G

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=516677>

strftime.3

Michael Kerrisk

Add details on ISO 8601 week-based dates

ISO 8602 week-based dates are relevant for %G, %g, and %V,

and the existing details on these dates are a little thin.

strftime.3

Michael Kerrisk

Remove mention of year from ISO 8601 standard

The text mentioned the 1988 8601 standard, but there have

already been two revisions of the standard since then, so

simply remove mention of the year.

tellidir.3

Michael Kerrisk

SYNOPSIS: Fix return type: s/off_t/long/

And add a NOTES section pointing out that 'off_t'
was indeed used in glibc 2.1.1 and earlier.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=519230>

timeradd.3

Michael Kerrisk

Note that on some systems, <=, >=, == don't work for timercmp()

timeradd.3

Michael Kerrisk

SYNOPSIS: Fix return types of timerisset() and timercmp()

toascii.3

Michael Kerrisk

Note why POSIX.1-2008 marks this function obsolete

console_ioctl.4

Alan Curry

Fix 'argp' type for KDGETLED description

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=517485>

group.5

Michael Kerrisk

Various minor rewordings and improvements

resolv.conf.5

Michael Kerrisk

Document 'ip6-bytestring' option

resolv.conf.5

Michael Kerrisk

Document 'edns0' option

resolv.conf.5

Michael Kerrisk

Document 'ip6-dotint' / 'no-ip6-dotint' option

resolv.conf.5

Michael Kerrisk

Note that maximum value of 'ndots' option is capped to 15

resolv.conf.5

Michael Kerrisk

Note that maximum value of 'timeout' option is capped to 30

hier.7

Michael Kerrisk

Add description of /srv

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=520904>

ip.7

Michael Kerrisk

Fix type used to declare sin6_port

The page should use the type specified by POSIX,
rather than the (equivalent) type used in the kernel

ipv6.7

Teddy Hogeborn

Fix types used to declare sin6_family and sin6_port

The page should use the types specified by POSIX,
rather than the (equivalent) types used in the kernel.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=517074>

mq_overview.7

Michael Kerrisk

Recast discussion on name length to exclude terminating NULL byte

Probably it's clearer to describe the length of the IPC object
name as a count that excludes the null terminator.

rtld-audit.7

Michael Kerrisk

Note that multiple libraries in LD_AUDIT doesn't work

This is reportedly fixed in glibc 2.10.

See http://sourceware.org/bugzilla/show_bug.cgi?id=9733

sem_overview.7

Michael Kerrisk

Fix discussion of length of semaphore names

Because of the "sem." prefix added by glibc to a semaphore
name, the limit on the length of the name (excluding the
terminating null byte) is 251 characters.

==== Changes in man-pages-3.21 =====

Released: 2009-04-15, Los Gatos

Contributors

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Michael Kerrisk <mtk.manpages@gmail.com>
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Apologies if I missed anyone!

New and rewritten pages

pthread_setconcurrency.3

Michael Kerrisk

New page documenting pthread_setconcurrency(3) and pthread_getconcurrency(3)

pthread_yield.3

Michael Kerrisk

New page documenting pthread_yield(3)

New and changed links

pthread_getconcurrency.3

Michael Kerrisk

New link to new pthread_setconcurrency(3)

Changes to individual pages

initrd.4

Michael Kerrisk

Various minor wording improvements

initrd.4

Frank Dana

Add missing word in description

feature_test_macros.7

Michael Kerrisk

Update for glibc 2.10 changes to <features.h>

From glibc 2.10, <features.h> understands the values 200809 for _POSIX_C_SOURCE and 700 for _XOPEN_SOURCE, and makes corresponding changes to defaults for other feature test macros.

Michael Kerrisk

Add an example program

This example program makes it possible to explore what feature test macros are set depending on the glibc version and the macros that are explicitly set.

ldconfig.8

Michael Kerrisk

/etc/ld.so.conf also include libraries found in /lib and /usr/lib

===== Changes in man-pages-3.22 =====

Released: 2009-07-25, Munich

Contributors

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Apologies if I missed anyone!

Changes to individual pages

clone.2

Michael Kerrisk

Rewrite crufty text about number of args in older version of clone()

Some bit rot had crept in regarding the discussion of the number of arguments in older versions of this syscall.

Simplify the text to just say that Linux 2.4 and earlier didn't have ptid, tls, and ctid arguments.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=533868>

Michael Kerrisk

Fix version number for CLONE_NEWIPC

It's 2.6.19, not 2.4.19.

Michael Kerrisk

Fix errors in argument names in text (ptid, ctd)

execve.2

Mike Frysinger

Remove erroneous statement that pending signal set is cleared on execve(2).

fcntl.2

Michael Kerrisk

The kernel source file mandatory.txt is now mandatory-locking.txt

Michael Kerrisk

The Documentation/* files are now in Documentation/filesystems

flock.2

Michael Kerrisk

Remove unneeded reference to Documentation/mandatory.txt

Mandatory locks are only implemented by fcntl() locking

Michael Kerrisk

The Documentation/* files are now in Documentation/filesystems

fork.2

Jeff Moyer

Document fork() behaviour for the Linux native AIO io_context

It was noted on lkml that the fork behaviour is documented for the POSIX AIO calls, but not for the Linux native calls.

Here is a patch which adds a small blurb that folks will hopefully find useful.

Upon fork(), the child process does not inherit the io_context_t data structures returned by io_setup, and thus cannot submit further asynchronous I/O or reap event completions for said contexts.

getdents.2

Michael Kerrisk

The `d_type` field is fully supported on Btrfs

mount.2

Michael Kerrisk

Document `MS_STRICTATIME`, update description of `MS_RELATIME`

Starting with Linux 2.6.30, the `MS_RELATIME` behavior became the default, and `MS_STRICTATIME` is required to obtain the traditional semantics.

poll.2

Michael Kerrisk

Remove `EBADF` error from `ERRORS`

As reported by Motohiro:

"man poll" describe this error code.

```
>ERRORS
```

```
> EBADF An invalid file descriptor was given in one of the sets.
```

but current kernel implementation ignore invalid file descriptor, not return `EBADF`.

...

In the other hand, `SUSv3` talk about

```
> POLLNVAL
```

```
> The specified fd value is invalid. This flag is only valid in the  
> revents member; it shall ignored in the events member.
```

and

```
> If the value of fd is less than 0, events shall be ignored, and  
> irevents shall be set to 0 in that entry on return from poll().
```

but, no describe `EBADF`.

(see <http://www.opengroup.org/onlinepubs/009695399/functions/poll.html>)

So, I think the implementation is correct.

Why don't we remove `EBADF` description?

sigaction.2

Michael Kerrisk

Expand description of `si_utime` and `si_stime` fields of `siginfo_t`

stat.2

Michael Kerrisk

Improve wording of ENOTDIR error

syscalls.2

Michael Kerrisk

Add preadv() and pwritev(), new in kernel 2.6.30

wait.2

Gokdeniz Karadag

Document CLD_DUMPED and CLD_TRAPPED si_code values

daemon.3

Michael Kerrisk

Clarify discussion of 'noclose' and 'nochdir' arguments

ffs.3

Petr Baudis

SEE ALSO: add memchr(3)

fmemopen.3

Petr Baudis

Relocate BUGS section to correct position

Petr Baudis

NOTES: there is no file descriptor associated with the returned stream

Alexander Lamaison pointed out that this is not obvious from the documentation, citing an example with passing the FILE * handle to a function that tries to fstat() its fileno() in order to determine the buffer size.

Michael Kerrisk

CONFORMING TO: remove note that these functions are GNU extensions

That sentence is now redundant, since these functions are added in POSIX.1-2008.

lockf.3

Michael Kerrisk

Clarify relationship between fcntl() and lockf() locking

memchr.3

Petr Baudis

SEE ALSO: add ffs(3)

readdir.3

Michael Kerrisk

The d_type field is fully supported on Btrfs

setjmp.3

Mike Frysinger

Fix typo and clarify RETURN description

The word "signal" was duplicated in NOTES, and the RETURN

section refers to `setjmp()` and `sigsetjmp()`, and mentions `longjmp()`, but not `siglongjmp()`.

`strcmp.3`

Petr Baudis

SEE ALSO: `add strverscmp(3)`

`strcpy.3`

Mark Hills

SEE ALSO: `Add strdup(3)`

`complex.7`

Michael Kerrisk

Add missing header file for example program

Reimar Döffinger

Fix type used in example code

man `complex` (from release 3.18) contains the following code:

```
complex z = cexp(I * pi);
```

Reading the C99 standard, "complex" is not a valid type, and several compilers (Intel ICC, ARM RVCT) will refuse to compile.

It should be

```
double complex z = cexp(I * pi);
```

 instead.

`environ.7`

Michael Kerrisk

Note that last element in `environ` array is `NULL`

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=528628>

Michael Kerrisk

Wording fixes

`mq_overview.7`

Michael Kerrisk

Note that `mkdir` and `mount` commands here need superuser privilege

Michael Kerrisk

Fix example showing contents of `/dev/mqueue` file

`standards.7`

Michael Kerrisk

Remove references to dated books

Gallmeister and Lewine are rather old books. Probably, there are better books to consult nowadays, and anyway, this man page isn't intended to be a bibliography.

==== Changes in man-pages-3.23 =====

Released: 2009-09-30, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Changes to individual pages

execve.2

pipe.2

tee.2

fmemopen.3

mq_notify.3

qsort.3

Michael Kerrisk

Replace use of assert() by code that checks argc

See http://bugzilla.kernel.org/show_bug.cgi?id=13569

As noted by Andrey:

The purpose of the assert macro, defined in <assert.h>, is to provide a tool to check for programming mistakes or program logic errors. However, the assert macro must never be used to perform checks for run time errors, since, with the NDEBUG macro defined, expressions within the assert macro invocations are not evaluated/checked for, resulting in behavior that was not originally intended.

...

The pages affected in the core package are

execve(2)
pipe(2)
tee(2)
fmemopen(3)
mq_notify(3)
qsort(3)

getrusage.2

Michael Kerrisk

ru_inblock and ru_oublock are now implemented
These fields of the rusage structure are filled in since
Linux 2.6.22.

mmap.2

Michael Kerrisk

Add brief documentation of MAP_HUGETLB
This flag is new in 2.6.32, and serves a similar
purpose to the shmget() SHM_HUGETLB flag.

open.2

Christoph Hellwig

add some comments on O_SYNC and friends

poll.2

Michael Kerrisk

Clarify wording describing of 'nfds' argument.
reported by: rui rlex <rui.rlex@gmail.com>

semctl.2

Nicolas François

Remove some redundant words

setpgid.2

Michael Kerrisk

Add an explanation of orphaned process groups

splice.2

tee.2

vmsplice.2

Mark Hills

Fix return type
Since glibc 2.7, the return type for these functions
is ssize_t (formerly it was long).

stat.2

Nicolas François

Fix small bug in example program
Since it is a failure, EXIT_FAILURE looks more appropriate

than EXIT_SUCCESS.

umount.2

Michael Kerrisk

glibc only exposes MNT_DETACH and MNT_EXPIRE since version 2.11

See http://sourceware.org/bugzilla/show_bug.cgi?id=10092

exit.3

Michael Kerrisk

Add a pointer to explanation of orphaned process groups in setpgid(2)

fflush.3

Michael Kerrisk

fflush() discards buffered input

ffs.3

Michael Kerrisk

Clarify that ffs() and ffsll() are GNU extensions

getaddrinfo.3

Michael Kerrisk

Note nonstandard assumed hints.ai_flags value when hints is NULL

When hints is NULL, glibc assumes hints.ai_flags is

AI_V4MAPPED|AI_ADDRCONFIG whereas POSIX says 0.

According to Ulrich Drepper, glibc's behavior is better.

getmntent.3

Mike Frysinger

setmntent() argument is 'filename' not 'fp'

The description of setmntent() formerly used the wrong argument name.

posix_fallocate.3

Nicolas François

Fix reference to POSIX.1-2008

The sentence mentions twice POSIX.1-2001.

I guess the second one should be POSIX.1-2008.

This should be checked in the standard.

setenv.3

Michael Kerrisk

Improve ERRORS section

Add ENOMEM error; improve EINVAL description. Also, make RETURN VALUE section a little more accurate in its mention of errno.

strftime.3

Nicolas François

Fix error in description: s/Monday/Thursday/

proc.5

Nicolas François

Fix page cross reference

max_user_watches is better explained in epoll(7) than inotify(7).

proc.5

Michael Kerrisk

dmesg is in section 1, not section 8

capabilities.7

Michael Kerrisk

FS UID manipulations affect CAP_LINUX_IMMUTABLE and CAP_MKNOD

Nowadays, file system UID manipulations also affect

CAP_LINUX_IMMUTABLE (since 2.6.3) and CAP_MKNOD (since 2.6.29).

capabilities.7

Michael Kerrisk

Fix version number for CAP_MKNOD in FS UID manipulations

A recent patch said "since 2.6.29". It should have

been "since 2.6.30".

capabilities.7

Nicolas François

Reword a bad sentence in description of capability bounding set.

mq_overview.7

Michael Kerrisk

Change documented ranges for msg_max and msgsize_max

Linux 2.6.28 changed the permissible ranges for

these /proc files.

tcp.7

udp.7

Nicolas François

Replace references to syctl interfaces with /proc

==== Changes in man-pages-3.24 =====

Released: 2010-02-25, Munich

Contributors

The following people contributed notes, ideas, or patches that have

been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

add_key.2

David Howells

New page documenting add_key(2)

Taken from keyutils-1.1 package.

keyctl.2

David Howells

New page documenting keyctl(2)

Taken from keyutils-1.1 package.

request_key.2

David Howells

New page documenting request_key(2)

Taken from keyutils-1.1 package.

Global changes

Various pages

Michael Kerrisk

Global fix: s/non-root/unprivileged/

Various pages

Michael Kerrisk

Global fix: s/non-privileged/unprivileged/

Various pages

Michael Kerrisk

Global fix: /non-superuser/unprivileged user/

Various pages

Michael Kerrisk

s/non-/non/

The tendency in English, as prescribed in style guides like Chicago MoS, is toward removing hyphens after prefixes like "non-" etc.

Various pages

Michael Kerrisk

Global fix: s/re-/re/

The tendency in English, as prescribed in style guides like Chicago MoS, is toward removing hyphens after prefixes like "re-" etc.

Various pages

Michael Kerrisk

Global fix: s/multi-/multi/

The tendency in English, as prescribed in style guides like Chicago MoS, is toward removing hyphens after prefixes like "multi-" etc.

Various pages

Michael Kerrisk

Global fix: s/pre-/pre/

The tendency in English, as prescribed in style guides like Chicago MoS, is toward removing hyphens after prefixes like "pre-" etc.

Various pages

Michael Kerrisk

Global fix: s/sub-/sub/

The tendency in English, as prescribed in style guides like Chicago MoS, is toward removing hyphens after prefixes like "sub-" etc.

stime.2

time.2

utimensat.2

ctime.3

difftime.3

ftime.3

getspnam.3

mq_receive.3

mq_send.3

rtime.3

sem_wait.3

strftime.3

strptime.3

timeradd.3

rtc.4

core.5

proc.5

icmp.7

time.7

Michael Witten

Global fix: Consistently define the Epoch

All definitions of the Epoch have been refactored to the following:

1970-01-01 00:00:00 +0000 (UTC)

That form is more consistent, logical, precise, and internationally recognizable than the other variants.

Also, some wording has been altered as well.

spu_create.2

getopt.3

passwd.5

Michael Kerrisk

Global fix: s/non-existing/nonexistent/

faccessat.2
fchmodat.2
fchownat.2
fstatat.2
futimesat.2
linkat.2
mkdirat.2
mknodat.2
openat.2
readlinkat.2
renameat.2
symlinkat.2
unlinkat.2
utimensat.2
mkfifoat.3

Michael Kerrisk

Update feature test macro requirements

Starting in glibc 2.10, defining `_XOPEN_SOURCE >= 700`,
or `_POSIX_C_SOURCE >= 200809` exposes the declarations of
these functions.

Changes to individual pages

clock_getres.2

Michael Kerrisk

Update text on nonsettable `CLOCK_*_CPUTIME_ID` clocks

SUSv3 permits, but does not require `CLOCK_THREAD_CPUTIME_ID` and
`CLOCK_PROCESS_CPUTIME_ID` to be settable.

See http://bugzilla.kernel.org/show_bug.cgi?id=11972.

execve.2

Colin Watson

Fix description of treatment of caught signals

Caught signals reset to their default on an `execve()` (not
to being ignored).

fcntl.2

Michael Kerrisk

`s/F_OWNER_GID/F_OWNER_PGRP/`

Peter Zijlstra took the name change I suggested.

Michael Kerrisk

Document `F_[SG]ETOWN_EX`; update details on `F_SETOWN`

Linux 2.6.32 adds `F_SETOWN_EX` and `F_GETOWN_EX`.

Linux 2.6.12 changed (broke) the former behavior of

`F_SETOWN` with respect to threads.

intro.2

intro.3

Michael Kerrisk

Make subsection heading consistent with other intro.? pages
These pages used "Copyright Terms"; the other intro.? pages
used "Copyright Conditions". Make these pages like the others.

sendfile.2

Michael Kerrisk

Clarify behavior when 'offset' is NULL

seteuid.2

Michael Kerrisk

Note unstandardized behavior for effective ID
POSIX.1 doesn't require that the effective ID can be changed
to the same value it currently has (a no-op). The man page
should note this, since some other implementations
don't permit it.

setgid.2

Michael Kerrisk

Fix EPERM error description
s/effective group ID/real group ID/
This bug lived in man pages for 15 years before Jason
spotted it! I checked back in Linux 1.0, and the behavior
was as the fixed man page describes.

setreuid.2

Michael Kerrisk

Add more detail on POSIX.1 specification for these syscalls

setuid.2

Michael Kerrisk

Remove crufty statement that seteuid() is not in POSIX
See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=569812>

stime.2

strftime.3

tzset.3

zic.8

Michael Witten

GMT -> UTC (where appropriate)

sync_file_range.2

Christoph Hellwig

Add some big warnings re data integrity
This system call is by design completely unsuitable for any data
integrity operations. Make that very clear in the manpage.

CPU_SET.3

Vlastimil Babka

SYNOPSIS: Fix return types for CPU_COUNT_*(
These functions return 'int' not void'.

confstr.3

Michael Kerrisk

Fix feature test macro requirements

daemon.3

Michael Kerrisk

Fix description of 'nochdir' argument.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=554819>

gethostbyname.3

Michael Kerrisk

Document feature test macro requirements for herror() and hstrerror()

Since glibc 2.8, one of _BSD_SOURCE, _SVID_SOURCE,
or _GNU_SOURCE is required.

getline.3

Michael Kerrisk

Update to reflect that these functions were standardized in POSIX.1-2008

getnameinfo.3

Michael Kerrisk

Document feature test macros requirements for NI_MAXHOST and NI_MAXSERV

Since glibc 2.8, one of _BSD_SOURCE, _SVID_SOURCE, or _GNU_SOURCE
must be defined to obtain these definitions.

getopt.3

Jonathan Nieder

Fix feature test macro requirements

memchr.3

Michael Kerrisk

Add feature text macro requirements for memrchr()

nextafter.3

Michael Kerrisk

Fix notable error in DESCRIPTION.

"less than y" should be "less than x".

popen.3

Michael Kerrisk

Fix feature test macro requirements

pthread_attr_setdetachstate.3

pthread_attr_setschedparam.3

pthread_attr_setschedpolicy.3

Denis Barbier

Argument name is 'attr' not 'thread'

The function argument was misnamed in the DESCRIPTION on these three pages.

rtnetlink.3

Michael Kerrisk

Various fixes in example code

Edward reported a problem in the example code, where a variable seems to be misnamed. Upon inspection, there seem to be a few such instances, and this patch is my best guess at how things should look.

sched_getcpu.3

Michael Kerrisk

Place correct header file in SYNOPSIS

sleep.3

Bill O. Gallmeister

sleep() puts calling *thread* to sleep (not calling *process*)

sleep.3

Bill O. Gallmeister

Add nanosleep(2) to SEE ALSO

strftime.3

Michael Kerrisk

%z is defined in SUSv3

So, substitute "GNU" tag in man page by "SU".

strftime.3

Michael Witten

Move 822-compliant date format example to EXAMPLES section

The RFC 822-compliant date format given in the description of '%z' is now moved to the 'EXAMPLES' section (note: 'EXAMPLE' has been renamed 'EXAMPLES').

Furthermore, that format example is now actually RFC 822-compliant (using '%y' instead of '%Y') and has been qualified as being correct only when in the context of at least an English locale. Also, '%T' is used in place of '%H:%M:%S'.

For completeness, an RFC 2822-compliant format example has been similarly added.

strftime.3

Michael Witten

Expand introductory text

strftime.3

Michael Witten

Clarification of %z specifier

string.3

Mark Hills

Add stpcpy() to this list of string functions

strptime.3

Michael Kerrisk

Initialize tm structure in example program

undocumented.3

Michael Kerrisk

Remove pages now documented

By now, the following are documented:

fopencookie(3)

freeifaddrs(3)

rawmemchr(3)

readdir_r(3)

getutmp(3)

getutmpx(3)

utmpxname(3)

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=554819>

group.5

Michael Kerrisk

s/passwd/password/

The page inconsistently used "passwd" and "password" to refer to the same field.

capabilities.7

Michael Kerrisk

Update securebits discussion to use SECBIT_* flags

feature_test_macros.7

Michael Kerrisk

_POSIX_C_SOURCE >= 200808 defines _ATFILE_SOURCE

Since glibc 2.10, _POSIX_C_SOURCE >= 200808 defines _ATFILE_SOURCE

path_resolution.7

Michael Kerrisk

Add readlink(2) to SEE ALSO

Michael Kerrisk

Fix NAME line

The poorly constructed part preceding "\-" causes apropos not to be able to find the subject.

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=558300>

signal.7

Michael Kerrisk

Fix discussion of SIGUNUSED

Clarify that this signal really is synonymous with SIGSYS.

See http://bugzilla.kernel.org/show_bug.cgi?id=14449

==== Changes in man-pages-3.25 =====

Released: 2010-06-20, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

migrate_pages.2

Andi Kleen

New page documenting migrate_pages(2).

Andi's text based on the move_pages.2 page;
additional edits by mtk.

migrate_pages(2) was new in Linux 2.6.16.

quotactl.2

Jan Kara

Major updates

Update the page to consolidate information from the
outdated man-pages quotactl.2 page and the quotactl.2
page in the "quota-tools" package. The page in "quota-tools"
has now been dropped by Jan Kara, so that there is just one
canonical quotactl.2 page (in pan-pages).

Michael Kerrisk

Various other pieces added to the page by mtk.

Newly documented interfaces in existing pages

fcntl.2

Michael Kerrisk

Document F_SETPIPE_SZ and F_GETPIPE_SZ

These commands, new in kernel 2.6.35, set and get the capacity of pipes.

madvise.2

Andi Kleen

Document MADV_HWPOISON

Michael Kerrisk

Added documentation of MADV_MERGEABLE and MADV_UNMERGEABLE

These flags (used for Kernel Samepage Merging, KSM) are new in 2.6.32.

Andi Kleen

Document MADV_SOFT_OFFLINE

This operation was added in Linux 2.6.33.

mmap.2

Michael Kerrisk

Document MAP_UNINITIALIZED flag

New in Linux 2.6.33.

prctl.2

Andi Kleen

Document the hwpoison prctls in 2.6.32

sched_setscheduler.2

Michael Kerrisk

Document SCHED_RESET_ON_FORK

New in Linux 2.6.32

umount.2

Michael Kerrisk

Document UMOUNT_NOFOLLOW

New in Linux 2.6.34.

mkstemp.3

Michael Kerrisk

Document mkstemps() and mkostemps()

These functions are new in glibc 2.11. They allow the template string to include a suffix after the "XXXXXX" string.

proc.5

Michael Kerrisk

Document /proc/sys/vm/memory_failure_early_kill

New in 2.6.32. Description based on the text in Documentation/sysctl/vm.txt.

Michael Kerrisk

Document /proc/sys/vm/memory_failure_recovery

New in Linux 2.6.32. Description based on the text in Documentation/sysctl/vm.txt.

Michael Kerrisk

Document /proc/sys/fs/pipe-max-size

socket.7

Jan Engelhardt

Document SO_DOMAIN and SO_PROTOCOL

These read-only socket options were new in Linux 2.6.32.

New and changed links

fstatvfs.2

Michael Kerrisk

Adjust link to point to Section 3

fstatvfs.3

statvfs.2

Michael Kerrisk

New link to page relocated to Section 3

mkstemp.3

mkostemp.3

Michael Kerrisk

New links to mkstemp.3

mkstemp.3 now describes mkstemp(3) and mkostemp(3).

timer_create.2

timer_delete.2

timer_getoverrun.2

timer_settime.2

getline.3

Michael Kerrisk

Add 'L' to constants in feature test macro specifications

Be consistent with POSIX, which uses constants such as 200809L.

Global changes

open.2

sync_file_range.2

umount.2

Michael Kerrisk

Global fix: s/filesystem/file system/

Changes to individual pages

fcntl.2

Michael Kerrisk

Note that glibc 2.11 papers over the kernel F_GETOWN bug
Since version 2.11, glibc works around the kernel limitation for
process groups IDs < 4096 by implementing F_GETOWN via F_GETOWN_EX.

futex.2

Michael Kerrisk

Various fixes in SEE ALSO

getpriority.2

nice.2

Francesco Cosoleto

Move renice from section 8 to section 1

getrusage.2

Mark Hills

Add ru_maxrss

See kernel commit 1f10206.

Mark Hills

Description of maintained fields

These descriptions are taken from NetBSD 5.0's getrusage(2).

Michael Kerrisk

Enhanced description of various fields

mlock.2

Michael Kerrisk

/proc/PID/status VmLck shows how much memory a process has locked

After a note from Tom Swigg, it seems sensible mention VmLck here.

mount.2

Petr Uzel

Fix incorrect path

move_pages.2

Andi Kleen

Clarify includes/libraries

mremap.2

Michael Kerrisk

Clarify existence of fifth argument.

msgctl.2

semctl.2

shmctl.2

Francesco Cosoleto

Move ipc's from section 8 to section 1

open.2

Michael Kerrisk

Remove ambiguity in text on NFS and O_EXCL.

poll.2

Michael Kerrisk

Fix discussion of ppoll() timeout argument

1. Rename ppoll() argument to "timeout_ts" to distinguish it from the poll() argument in the text.
2. More accurately describe the poll() call that is equivalent to ppoll().

posix_fadvise.2

Michael Kerrisk

Add sync_file_range(2) under SEE ALSO

prctl.2

Michael Kerrisk

Correct PR_SET_KEEPCAPS description

The "keep capabilities" flag only affects the treatment of permitted capabilities, not effective capabilities.

Also: other improvements to make the PR_SET_KEEPCAPS text clearer.

select_tut.2

Michael Kerrisk

Fix bug in example program

sigaction.2

Michael Kerrisk

Add TRAP_BRANCH and TRAP_HWBKPT to si_code values for SIGTRAP

Michael Kerrisk

Rearrange text describing fields set by sigqueue(2)

Michael Kerrisk

Add details for signals sent by POSIX message queue notifications

Michael Kerrisk

Improve description of various siginfo_t fields

Michael Kerrisk

Add some details for SIGTRAP and si_trapno

Andi Kleen

Document hwpoison signal extensions

statfs.2

Michael Kerrisk

Bring statfs struct type declarations closer to glibc reality

Fang Wenqi

Add definition EXT4_SUPER_MAGIC = 0xEF53

Michael Kerrisk

Document f_frsize field.

statvfs.2

Michael Kerrisk

Move this page to section 3 (since it's a library call)

swapon.2

Ivana Hutarova Varekova

Note effect of CONFIG_MEMORY_FAILURE on MAX_SWAPFILES

From 2.6.32, MAX_SWAPFILES is decreased by 1 if the kernel is built with CONFIG_MEMORY_FAILURE.

syscalls.2

Michael Kerrisk

Bring system call list up to date with Linux 2.6.33

Michael Kerrisk

Fix kernel version number for utimes()

cproj.3

Michael Kerrisk

Note fix for C99 conformance in glibc 2.12.

crypt.3

Petr Baudis

Correct note on key portion significance

As Marcel Moreaux notes:

The Linux manpage for crypt()[1] contains the following statement as the last sentence of the NOTES section:

In the SHA implementation the entire key is significant (instead of only the first 8 bytes in MD5).

It should probably say "DES" where it says "MD5" (and maybe "MD5/SHA" where it says "SHA"), because in MD5 password hashing, the entire key is significant, not just the first 8 bytes.

This patch fixes the wording.

fmemopen.3

Michael Kerrisk

Bug fix in example program

ftw.3

Michael Kerrisk

Note that if 'fn' changes CWD, the results are undefined

Michael Kerrisk

Clarify description of fpath argument

As reported by Pierre Habouzit, 'fpath' is not relative to 'dirpath'. It is either relative to the calling process's current working directory (if 'dirpath' was relative), or it is absolute (if 'dirpath' was absolute).

getaddrinfo.3

Christian Franke

Fix a field name mixup: s/ai_family/ai_flags/

getline.3

Robert Wohrab

Remove unneeded check before free()

The manpage of getline shows an example with an extra NULL pointer check before it calls free. This is unneeded according to free(3):

If ptr is NULL, no operation is performed.

This patch removes the "if" check.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=572508>

log.3

log10.3

log2.3

Jan Engelhardt

Add cross-references to other-base logarithmic functions

opendir.3

Petr Baudis

Specify feature test macro requirements for fdopendir(3)

Currently, there is no note on the fact that fdopendir() is POSIX.2008-only.

openpty.3

Eric Blake

Use const as appropriate

Michael Kerrisk

Note glibc version that added "const" to function arguments

Michael Kerrisk

Explicitly note that these functions are not in POSIX

resolver.3

Michael Kerrisk

Fix declaration of dn_comp() in SYNOPSIS

Remove the second 'exp_dn' from the calling signature.

termios.3

Michael Kerrisk

Change NOFLSH text to speak of characters, not signals

core.5

Michael Kerrisk

Update description of coredump_filter

Kernel 2.6.24 added MMF_DUMP_ELF_HEADERS.

Kernel 2.6.28 added MMF_DUMP_HUGETLB_PRIVATE and
MMF_DUMP_HUGETLB_SHARED.

elf.5

Daisuke HATAYAMA

Document PN_XNUM extension

In linux-2.6.34-rc1, an ELF core extension was added; user-land
tools manipulating ELF core dump such as gdb and binutils has
already been modified before; so elf.5 needs to be modified
accordingly.

You can follow information on the ELF extension via the LKML post:

<http://lkml.org/lkml/2010/1/3/103>

Date Mon, 04 Jan 2010 10:06:07 +0900 (JST)

Subject ... elf coredump: Add extended numbering support

This Linux-specific extension was added in kernel 2.6.34.

Reviewed-by: Petr Baudis <pasky@suse.cz>

Michael Kerrisk

Remove EI_BRAND

As reported by Yuri Kozlov and confirmed by Mike Frysinger,

EI_BRAND is not in GABI

(<http://www.sco.com/developers/gabi/latest/ch4.eheader.html>)

It looks to be a BSDism

Michael Kerrisk

Remove words under '.note': "described below"

The existing text is broken, because there is
no "'Note Section' format' describe below. Simplest
solution is to remove the words "described below".

filesystems.5

Jeff Barry

Add discussion of ntfs and ext4

proc.5

Michael Kerrisk

Simplify description of /proc/sys and /proc/sys/fs

In the description of these directories, there's no need
to list all the files and subdirectories that they contain;

that information is provided by the entries that follow.

services.5

Yuri Kozlov

Remove crufty reference to nonexistent BUGS section

capabilities.7

Michael Kerrisk

Document CAP_SYS_RESOURCE and F_SETPIPE_SZ

With CAP_SYS_RESOURCE, a process can increase pipe capacity above /proc/sys/ps/pipe-max-size.

Michael Kerrisk

Add get_robust_list() info under CAP_SYS_PTRACE

Michael Kerrisk

Add MADV_HWPOISON under CAP_SYS_ADMIN

signal.7

Michael Kerrisk

Make a clearer statement about nonportable aspect of signal(2)

Make a clearer statement that signal(2) is less portable for establishing a signal handler.

socket.7

Michael Kerrisk

Use consistent language to describe read-only socket options

udp.7

Michael Kerrisk

Add FIONREAD warning.

Warn that FIONREAD can't distinguish case of a zero-length datagram from the case where no datagrams are available.

==== Changes in man-pages-3.26 =====

Released: 2010-09-04, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

eventfd.2

Michael Kerrisk

Document EFD_SEMAPHORE

Document the EFD_SEMAPHORE flag, added in kernel 2.6.30.

Also restructured some parts of the text to fit with the
addition of the EFD_SEMAPHORE text.

Global changes

getaddrinfo.3

getipnodebyname.3

st.4

Michael Kerrisk

s/logical OR/bitwise OR/

Changes to individual pages

clock_nanosleep.2

Michael Kerrisk

Fix discussion of return value when interrupted by a signal

epoll_ctl.2

Yuri Kozlov

Small fix to types in data structures

eventfd.2

Alexander Shishkin

Clarified close-on-exec behavior

madvise.2

Michael Kerrisk

Improve discussion of MADV_SOFT_OFFLINE

mkdir.2

Michael Kerrisk

Add EMLINK error to ERRORS

mq_getsetattr.2

mq_close.3

mq_getattr.3

mq_notify.3

mq_send.3

mq_unlink.3

Lnac Huard

Fix return type in SYNOPSIS (s/mqd_t/int/)

recv.2

send.2

Michael Kerrisk

Remove obsolete reference to glibc version in NOTES

recv.2

send.2

Nicholas Hunt

Adjust type shown for msg_controllen to glibc reality

This patch fixes the type of msg_controllen in the struct msg_hdr definition given in send.2 and recv.2 to match the definition in glibc and the kernel.

select.2

Michael Kerrisk

Update NOTES on old glibc pselect()

Make it clear that modern glibc uses the kernel pselect() on systems where it is available.

See https://bugzilla.kernel.org/show_bug.cgi?id=14411

statfs.2

Guillem Jover

Fix copy & paste error for __SWORD_TYPE definition

sysfs.2

Michael Kerrisk

Clarify that this syscall is obsolete.

And strengthen recommendation to use /proc/filesystems instead.

write.2

Michael Kerrisk

Add EDESTADDRREQ error

a64l.3

Peng Haitao

Fix error in NOTES, s/a64l/164a/

error.3

Linus Nilsson

Change "perror" to "strerror" in DESCRIPTION of error()

mq_send.3

Michael Kerrisk

Fix EAGAIN description (s/empty/full)

initrd.4

Yuri Kozlov

Fix IP address in explanation of NFS example

tzfile.5

Michael Kerrisk

Add information on version 2 format timezone files

Updated using information from the tzcode 2010l release at
<ftp://elsie.nci.nih.gov/pub>.

(It's an open question whether or not a version of tzfile.5
should live independently in man-pages. It was added to the
man-pages set many years ago. For now, I'll follow a
conservative course that causes least pain to downstream,
by continuing to maintain a separate copy in man-pages.)

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=594219>

==== Changes in man-pages-3.27 =====

Released: 2010-09-22, Nuernberg

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Yuri Kozlov <yuray@komyakino.ru>

Apologies if I missed anyone!

New and rewritten pages

sigevent.7

Petr Baudis, Michael Kerrisk

New page to centralize description of sigevent structure

Several interfaces use this structure. Best to centralize the common details in one place. Content taken from the existing timerfd_create.2 and mq_open.3 pages, with additions by Petr Baudis and Michael Kerrisk.

Newly documented interfaces in existing pages

ip.7

Jiri Olsa

Document IP_NODEFRAG

This option is new in Linux 2.6.36

unix.7

Michael Kerrisk

Document SIOCINQ ioctl() operation

Global changes

_exit.2
brk.2
chdir.2
chmod.2
chown.2
chroot.2
clock_nanosleep.2
getdtablesize.2
gethostname.2
getpagesize.2
getsid.2
killpg.2
mknod.2
mknodat.2
posix_fadvise.2
pread.2
readlink.2
setpgid.2
setreuid.2
sigaltstack.2
stat.2
symlink.2
sync.2
truncate.2
vfork.2
wait.2
wait4.2
a64l.3
abs.3
acos.3
acosh.3
asin.3
asinh.3
atan.3
atan2.3
atanh.3
atoi.3
cbrt.3
ceil.3
clock_getcpuclockid.3
copysign.3
cos.3
cosh.3
dirfd.3

div.3
dprintf.3
ecvt.3
erf.3
erfc.3
exp.3
exp2.3
expm1.3
fabs.3
fdim.3
fexecve.3
ffs.3
floor.3
fma.3
fmax.3
fmemopen.3
fmin.3
fmod.3
fpclassify.3
frexp.3
fwide.3
gamma.3
gcvt.3
getcwd.3
getdate.3
getgrent.3
gethostid.3
getpass.3
getpwent.3
getsubopt.3
getw.3
hypot.3
ilogb.3
insque.3
isalpha.3
isgreater.3
iswblank.3
j0.3
j0.3
ldexp.3
lockf.3
log.3
log10.3
log1p.3
log2.3
logb.3
lrint.3
lround.3

mbsnrtowcs.3
mkdtemp.3
mkstemp.3
mktemp.3
modf.3
mq_receive.3
mq_send.3
nan.3
nextafter.3
posix_fallocate.3
posix_memalign.3
pow.3
printf.3
qecvt.3
random.3
realpath.3
remainder.3
remquo.3
rint.3
rint.3
round.3
scalb.3
scalbln.3
scanf.3
siginterrupt.3
signbit.3
sigset.3
sin.3
sinh.3
sqrt.3
stpcpy.3
stpncpy.3
strdup.3
strdup.3
strlen.3
strsignal.3
strtod.3
strtol.3
strtoul.3
tan.3
tanh.3
tgamma.3
trunc.3
tty slot.3
ualarm.3
usleep.3
wcpcpy.3
wcpncpy.3

wscasecmp.3
wcsdup.3
wscncasecmp.3
wcsnlen.3
wcsnrtombs.3
wprintf.3

Michael Kerrisk

Add/fix/update feature test macro requirements in SYNOPSIS

Various changes to:

- * Update feature test requirements to note changes in recent glibc releases
- * Correct errors in feature test macro requirements
- * Add feature test macro requirements to pages where the requirements were not previously stated.

accept.2
clone.2
dup.2
fallocate.2
pipe.2
readahead.2
sched_setaffinity.2
unshare.2
CPU_SET.3
endian.3
euidaccess.3
fexecve.3
getpt.3
getpw.3
getumask.3
getutmp.3
gnu_get_libc_version.3
makedev.3
matherr.3
mbsnrtowcs.3
memfrob.3
pthread_attr_setaffinity_np.3
pthread_getattr_np.3
pthread_setaffinity_np.3
pthread_tryjoin_np.3
tcgetsid.3
wscasecmp.3
wscncasecmp.3
wcsnlen.3
wcsnrtombs.3
wcswidth.3
rtd-audit.7

Michael Kerrisk

SYNOPSIS: Add reference to feature_test_macros(7)

These pages specify feature test macros in the function prototypes. Add a reference to feature_test_macros(7), so that readers are pointed to the information that feature test macros must be defined before including **any** header file.

clock_nanosleep.2

clock_getcpuclockid.3

getnetent_r.3

getprotoent_r.3

getrpcent_r.3

getservent_r.3

sigwait.3

Michael Kerrisk

RETURN VALUE: Note that "positive error numbers" are listed in ERRORS

fcntl.2

intro.2

open.2

poll.2

ftw.3

intro.3

matherr.3

system.3

tmpnam.3

unix.7

Michael Kerrisk

Note that feature test macros must be defined before **any** includes

Programmers often make the mistake of including a feature test macro only after having already included some header files.

This patch adds some text at opportune places to remind programmers to do things the right way.

index.3

stpcpy.3

strcasecmp.3

strcat.3

strchr.3

stremp.3

strcoll.3

strep.3

strdup.3

strfry.3

strpbrk.3

strsep.3

strspn.3

strstr.3

strtok.3

strxfrm.3

Michael Kerrisk

SEE ALSO: Add reference to string(3)

The idea here is to provide a route to discover other string functions.

armSCII-8.7

cp1251.7

iso_8859-3.7

iso_8859-5.7

iso_8859-6.7

iso_8859-8.7

iso_8859-10.7

iso_8859-11.7

iso_8859-13.7

iso_8859-14.7

koi8-u.7

Denis Barbier

Fix decimal values in encoding tables

Octal and hexadecimal values are right, but there are some off-by-one errors in decimal values. Correct values are printed by this command:

```
perl -pi -e 'if (s/^(([0-7]+)\t([0-9]+)\t([0-9a-fA-F]+)/))  
{printf "%03o\t%d\t%s", hex($3), hex($3), $3;}' man7/*.7
```

Changes to individual pages

capget.2

Michael Kerrisk

SYNOPSIS: Remove unneeded "undef _POSIX_SOURCE"

fcntl.2

Michael Kerrisk

Add feature test macro requirements for F_GETOWN and F_SETOWN

fcntl.2

Michael Kerrisk

Note feature test macro requirements for F_DUPFD_CLOEXEC

getrlimit.2

Michael Kerrisk

Document units for RLIMIT_RTTIME limit

This limit is in microseconds

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=596492>

lseek.2

Michael Kerrisk

Removed note about return type on ancient systems

mount.2

Michael Kerrisk

Definitions of various MS_* constants only appeared in glibc 2.12

See http://sourceware.org/bugzilla/show_bug.cgi?id=11235

stat.2

Michael Kerrisk

Update information on nanosecond timestamp fields

Update feature test macro requirements for exposing these fields.

Note that these fields are specified in POSIX.1-2008.

timer_create.2

Michael Kerrisk

Factor out generic material that was moved to new sigevent(7) page

aio_fsync.3

Michael Kerrisk

Add reference to new sigevent(7) page

atanh.3

Michael Kerrisk

glibc 2.10 fixed pole error bug

http://sourceware.org/bugzilla/show_bug.cgi?id=6759

was resolved.

cerf.3

Michael Kerrisk

Make it clearer that this function is unimplemented

cos.3

Michael Kerrisk

errno is now correctly set to EDOM on a domain error

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6780

was (silently) resolved.

expm1.3

Michael Kerrisk

errno is now correctly set to ERANGE on a range error

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6788

was (silently) resolved.

fmod.3

Michael Kerrisk

errno is now correctly set to EDOM for the x==inf domain error
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6784
was (silently) resolved.

insque.3

Michael Kerrisk

Noted prev == NULL bug in glibc 2.4 and earlier
As noted by Remi Denis-Courmont, glibc nowadays allows
'prev' to be NULL, as required by POSIX for initializing
a linear list. But in glibc 2.4 and earlier, 'prev' could
not be NULL. Add a BUGS section noting this.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=551201>

Michael Kerrisk

Added info on circular lists, and initializing circular lists

Michael Kerrisk

Added example program

lgamma.3

Michael Kerrisk

glibc 2.10 fixed pole error bug
http://sourceware.org/bugzilla/show_bug.cgi?id=6777
was (silently) resolved.

log2.3

Matthew Flaschen

log2() function does not conform to C89
log2(), log2f(), and log2l() do not conform to C89.
They are defined in C99. See <http://flash-gordon.me.uk/ansi.c.txt>
and <http://www.schweikhardt.net/identifiers.html>

mq_notify.3

Michael Kerrisk

Factor out generic material that was moved to new sigevent(7) page

pow.3

Michael Kerrisk

errno is now correctly set to ERANGE on a pole error
http://sources.redhat.com/bugzilla/show_bug.cgi?id=6776
was (silently) resolved.

pthread_kill_other_threads_np.3

Michael Kerrisk

CONFORMING TO: Note meaning of "_np" suffix

rand.3

Michael Kerrisk

Clarify description of range of returned value

Michael Kerrisk

Add an example program

Michael Kerrisk

Expand description of rand_r()

random.3

W. Trevor King

Update initState() return value description to match glibc

readdir.3

Michael Kerrisk

Clarify that "positive error numbers" are listed in ERRORS

rexec.3

Michael Kerrisk

SYNOPSIS: Add header file and feature test macro requirements

sigpause.3

Michael Kerrisk

Correct discussion of when BSD vs SysV version is used in glibc

sin.3

Michael Kerrisk

errno is now correctly set to EDOM on a domain error

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6781

was (silently) resolved.

tan.3

Michael Kerrisk

errno is now correctly set to EDOM on a domain error

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6782

was (silently) resolved.

wscasecmp.3

wcncasecmp.3

wcsnlen.3

Michael Kerrisk

Added VERSIONS section

boot.7

Yuri Kozlov

Update list of major Linux distributions

feature_test_macros.7

Michael Kerrisk

Make text on required placement of macros more prominent

Move the text that notes the requirement that feature test macros

must be defined before including any header files to the top of the page, and highlight the text further, so that the reader will not miss this point.

pthread.7

signal.7

Michael Kerrisk

Add SEE ALSO reference to new sigevent(7) page

tcp.7

Michael Kerrisk

Clarify header file details for SIOCINQ and SIOCOUTQ

Also note synonymous FIONREAD and TIOCOUTQ.

==== Changes in man-pages-3.28 =====

Released: 2010-10-04, Munich

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Apologies if I missed anyone!

New and rewritten pages

getaddrinfo_a.3

Petr Baudis

New page documenting getaddrinfo_a()

The page also documents gai_suspend(), gai_cancel(), and gai_error().

aio.7

Michael Kerrisk

New page providing an overview of POSIX asynchronous I/O

Newly documented interfaces in existing pages

exec.3

Michael Kerrisk

Document `execvpe()`

This function was added to `glibc` in version 2.11.

Also various other small rewrites in the page.

New and changed links

`gai_cancel.3`

`gai_error.3`

`gai_suspend.3`

Petr Baudis

New links to new `getaddrinfo_a.3` page

`error_one_per_line.3`

Michael Kerrisk

Fix misnamed link file (was `error_on_per_line.3`)

`execvpe.3`

Michael Kerrisk

New link to `exec.3`

`sigstack.3`

Michael Kerrisk

New link to `sigaltstack.2`

No new programs should use `sigstack(3)`. Point the user to the better `sigaltstack(2)`, whose man page briefly mentions `sigstack(3)`.

`vlimit.3`

Michael Kerrisk

New link to `getrlimit.2`

No new programs should use `vlimit(3)`. Point the user to the better `setrlimit(2)`, whose man page briefly mentions `vlimit(3)`.

`vtimes.3`

Michael Kerrisk

New link to `getrusage.2`

No new programs should use `vtimes(3)`. Point the user to the

better getrusage(2), whose man page briefly mentions vtimes(3).

Global changes

Various pages

Michael Kerrisk

Switch to American usage: "-wards" ==> "-ward"

American English uses "afterward" in preference to "afterwards",
and so on

chdir.2

chmod.2

chown.2

gethostname.2

getsid.2

pread.2

setpgid.2

sigaltstack.2

stat.2

truncate.2

wait.2

dirfd.3

getsubopt.3

mkdtemp.3

mkstemp.3

siginterrupt.3

strdup.3

Michael Kerrisk

Simplify feature test macro requirements

Changes to individual pages

getrlimit.2

Michael Kerrisk

Add mention of the ancient vlimit() function

getrusage.2

Michael Kerrisk

Add mention of the ancient vtimes() function

io_cancel.2

io_destroy.2

io_getevents.2

io_setup.2

io_submit.2

Michael Kerrisk

SEE ALSO: add aio(7)

sched_setscheduler.2

Michael Kerrisk

ERRORS: note that NULL 'param' yields EINVAL

stat.2

Michael Kerrisk

Note feature test macro requirements for blkcnt_t and blksize_t

timer_create.2

Michael Kerrisk

Standardize on name 'sevp' for sigevent argument

truncate.2

Michael Kerrisk

Correct and simplify ftruncate() feature test macro requirements

The glibc 2.12 feature test macro requirements for ftruncate() are buggy; see http://sourceware.org/bugzilla/show_bug.cgi?id=12037.

Corrected the requirements in the SYNOPSIS, and added a BUGS section describing the problem in glibc 2.12.

aio_cancel.3

Michael Kerrisk

Add pointer to aio(7) for example program

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_error.3

Michael Kerrisk

Wording improvements in RETURN VALUE

Add pointer to aio(7) for example program

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_fsync.3

Michael Kerrisk

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_read.3

Michael Kerrisk

Various minor rewordings and additions

Add pointer to sigevent(7) for details of notification of I/O completion

Add pointer to aio(7) for example program

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_return.3

Michael Kerrisk

Improve description in RETURN VALUE

Add pointer to aio(7) for example program

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_suspend.3

Michael Kerrisk

Various additions and rewordings.

Give some arguments more meaningful names.

More explicitly describe the 'nitems' argument.

Explicitly note that return is immediate if an I/O operation has already completed.

Note that aio_error(3) should be used to scan the aiocb list after a successful return.

Add references to other relevant pages.

Various other pieces rewritten.

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

aio_write.3

Michael Kerrisk

Add pointer to sigevent(7) for details of notification of I/O completion

Various minor rewordings and additions

Refer the reader to aio(7) for a description of the aiocb structure

CONFORMING TO: Add POSIX.1-2008; add VERSIONS section

clearenv.3

Michael Kerrisk

Fix error in feature test macro requirements

dysize.3

Michael Kerrisk

Remove crufty statement about old SCO bug

exec.3

Michael Kerrisk

Add feature test macro requirements for execvpe()

Rewrite description of PATH and mention _CS_PATH

Note execvp() and execlp() behavior for filename containing a slash

getaddrinfo.3

Michael Kerrisk

Add SEE ALSO reference to new getaddrinfo_a.3 page

gethostbyname.3

Michael Kerrisk

Fix formatting of feature test macros

getw.3

Michael Kerrisk

Fix feature test macros

malloc.3

Landijk

Remove editorializing comments on memory overcommitting

See https://bugzilla.kernel.org/show_bug.cgi?id=19332

Michael Kerrisk

Various minor reorganizations and wording fix-ups

mq_notify.3

Michael Kerrisk

Standardize on name 'sevp' for sigevent argument

nl_langinfo.3

Michael Haardt

Make it clear that nl_langinfo() interacts with setlocale()

Add an example program

posix_openpt.3

Michael Kerrisk

Fix feature test macro requirements

rand.3

Michael Kerrisk

Remove duplicate #include in example program

strtok.3

Petr Baudis

Add reference to strtok() example in getaddrinfo(3)

inotify.7

Michael Kerrisk

Added section noting limitations and caveats of inotify

sigevent.7

Michael Kerrisk

Add SEE ALSO reference to new getaddrinfo_a.3 page

Add SEE ALSO referring to new aio(7) page

suffixes.7

Michael Kerrisk

Change explanation of ".rpm" to "RPM software package"

===== Changes in man-pages-3.29 =====

Released: 2010-10-19, Detroit

Contributors

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Apologies if I missed anyone!

New and rewritten pages

subpage_prot.2

Michael Kerrisk

New page documenting the PowerPC-specific subpage_prot(2)

aio_init.3

Michael Kerrisk

New page documenting aio_init(3)

Newly documented interfaces in existing pages

posix_fadvise.2

Michael Kerrisk

Document the architecture-specific arm_fadvise64_64() system call

This ARM-specific system call fixes the argument ordering

for that architecture. Since Linux 2.6.14.

sync_file_range.2

Michael Kerrisk

Document the architecture-specific sync_file_range2() system call

As described in commit edd5cd4a9424f22b0fa08bef5e299d41befd5622, the sync_file_range() argument order is broken for some architectures (PowerPC, ARM, tile). The remedy was a different system call using the right argument order on those architectures.

psignal.3

Guillem Jover

Document psiginfo()

psiginfo() was added to glibc in version 2.10.

Michael Kerrisk

Add details, VERSIONS, and BUGS for psiginfo()

ip.7

Balazs Scheidler

Document IP_RECVORIGDSTADDR

Document IP_TRANSPARENT

Michael Kerrisk

Document IP_FREEBIND

Text based on input from Lennart Poettering and Balazs Scheidler.

See https://bugzilla.kernel.org/show_bug.cgi?id=20082

New and changed links

arm_fadvise64_64.2

Michael Kerrisk

New link to posix_fadvise.2

arm_sync_file_range.2, sync_file_range2.2

Michael Kerrisk

New links to sync_file_range.2

arm_fadvise.2

Michael Kerrisk

New link to posix_fadvise.2

psiginfo.3

Guillem Jover

New link to psignal.3

Global changes

Many pages

Michael Kerrisk

global fix: s/Unix/UNIX/

The man pages were rather inconsistent in the use of "Unix" versus "UNIX". Let's go with the trademark usage.

Various pages

Michael Kerrisk

Global fix: s/pseudo-terminal/pseudoterminal/

grantpt.3, ptsname.3, unlockpt.3, pts.4

Michael Kerrisk

Global fix: s/pty/pseudoterminal/

recv.2, cmsg.3, unix.7

Michael Kerrisk

global fix: s/UNIX socket/UNIX domain socket/

fmtmsg.3, gethostbyname.3, termios.3

Michael Kerrisk

Global fix: s/Unixware/UnixWare/

Changes to individual pages

inotify_rm_watch.2

Michael Kerrisk

SYNOPSIS: fix type of 'wd' argument

posix_fadvise.2

Michael Kerrisk

Rewrite VERSIONS, noting that the system call is fadvise64()

syscalls.2

Michael Kerrisk

Add the PowerPC-specific subpage_prot() system call

Add sync_file_range2()

truncate.2

Michael Kerrisk

Fix feature test macros

aio_cancel.3

aio_error.3

aio_fsync.3

aio_read.3

aio_return.3

aio_suspend.3

aio_write.3

Michael Kerrisk

SEE ALSO: Add lio_listio(3)

gai_cancel.3

gai_error.3

gai_suspend.3

Michael Kerrisk

Make these into links

In the previous release, these files were accidentally made copies of getaddrinfo_a.3, instead of being made as link files.

getifaddrs.3

Thomas Jarosch

Prevent possible NULL pointer access in example program

malloc.3

Michael Kerrisk

Emphasize that malloc() and realloc() do not initialize allocated memory

malloc_hook.3

Ivana Varekova

Warn that these functions are deprecated

strcpy.3

Michael Kerrisk

Formatting fixes in strncpy() example implementation code

ip.7

Michael Kerrisk

Reword NOTES on Linux-specific options

sigevent.7

Michael Kerrisk

SEE ALSO: Add aio_read(3), aio_write(3), and lio_listio(3)

unix.7

Michael Kerrisk

Document the autobind feature

Michael Kerrisk

Fix description of abstract socket names

As reported by Lennart Poettering:

The part about "abstract" sockets is misleading as it suggests that the sockaddr returned by getsockname() would necessarily have the size of sizeof(struct sockaddr), which however is not

the case: getsockname() returns exactly the sockaddr size that was passed in on bind(). In particular, two sockets that are bound to the same sockaddr but different sizes are completely independent.

See https://bugzilla.kernel.org/show_bug.cgi?id=19812

Michael Kerrisk

Fix description of "pathname" sockets

As reported by Lennart Poettering:

The part about "pathname" sockets suggests usage of `sizeof(sa_family_t) + strlen(sun_path) + 1` for calculating the sockaddr size. Due to alignment/padding this is probably not a good idea. Instead, one should use `offsetof(struct sockaddr_un, sun_path) + strlen() + 1` or something like that.

See https://bugzilla.kernel.org/show_bug.cgi?id=19812

===== Changes in man-pages-3.30 =====

Released: 2010-11-01, Munich

Contributors

The following people contributed notes, ideas, or patches that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

kexec_load.2

Andi Kleen

New page documenting kexec_load(2)

Michael Kerrisk

Add license

Michael Kerrisk

Incorporate fixes from Eric W. Biederman

Eric noted that a few instances of "virtual" should be "physical" and noted:

There is an expectation that at hand off from sys_kexec that virtual and physical addresses will be identity mapped. But this isn't the old Alpha booting convention where you have a virtual address and then you have to parse the page table to figure out where your kernel was actually loaded.

Michael Kerrisk

Additions and edits by mtk

Various wording and layout improvements.

Fixed the name of a constant: s/KEXEC_ARCH_I386/KEXEC_ARCH_386/.

Added RETURN VALUE and ERRORS sections.

Added VERSIONS section

Note that CONFIG_KEXEC is needed

Removed details of using syscall; the reader can find them in syscall(2).

Added some details for KEXEC_PRESERVE_CONTEXT.

Revised the text mentioning the kernel header, since it is not yet exported, and it's not certain that it will be.

lio_listio.3

Michael Kerrisk

New page documenting lio_listio(3)

Newly documented interfaces in existing pages

reboot.2

Andi Kleen

Document LINUX_REBOOT_KEXEC

Some fix-ups by Michael Kerrisk

Michael Kerrisk

Place 'cmd' values in alphabetical order.

unshare.2

Michael Kerrisk

Document CLONE_NEWIPC

Michael Kerrisk

Document CLONE_NEWNET

Lucian Adrian Grijincu

Improve description of CLONE_NEWNET

CLONE_NEWNET creates a new network namespace from scratch.

You don't have anything from the old network namespace in the new one. Even the loopback device is new.

Michael Kerrisk

Document CLONE_SYSVSEM

Michael Kerrisk

Document CLONE_NEWUTS

Michael Kerrisk

Relocate discussion of CAP_SYS_ADMIN to CLONE_NEWNS section

And rewrite the EPERM description to be more general in preparation for the new flags to be documented.

Global changes

Various pages

Michael Kerrisk

Add reference to feature_test_macros(7)

Some pages simply list feature test macro requirements in the form:

```
#define #GNU_SOURCE
#include <someheader.h>
```

For these pages, add a "See feature_test_macros(7)" comment on the "#define" line.

Various pages

Michael Kerrisk

SEE ALSO: Remove redundant reference to feature_test_macros(7)

Various pages

David Prevo

Use greater consistency in NAME line

(Remove definite article at start of descriptive clause.)

Various pages

Michael Kerrisk

SEE ALSO: Place entries in correct order

Various pages

Michael Kerrisk

ERRORS: Place entries in correct order

Various pages

Michael Kerrisk

Add section number to references to functions documented in other pages

Various pages

Michael Kerrisk

Remove redundant section number in page references

Remove section number in function references that are for functions documented on this page.

armSCII-8.7

iso_8859-3.7

iso_8859-4.7

iso_8859-5.7

iso_8859-6.7

iso_8859-10.7

iso_8859-11.7

iso_8859-13.7

iso_8859-14.7

koi8-u.7

David Prevot

Capitalize hexadecimal numbers

Changes to individual pages

access.2

Michael Kerrisk

Note use of `faccessat(2)` for checking symbolic link permissions

Michael Kerrisk

Give an example of a safer alternative to using `access()`

clone.2

Michael Kerrisk

Clarify when `CLONE_NEWNET` implementation was completed

faccessat.2

Michael Kerrisk

Note that `faccessat()` is racy

fcntl.2

Michael Kerrisk

RETURN VALUE: Improve description of `F_GETFD` and `F_GETFL`

inotify_add_watch.2

Michael Kerrisk

Document `ENOENT` error

mlock.2

Michael Kerrisk

Improve wording describing /proc/PID/status /VmLck field

Michael Kerrisk

shmctl() SHM_LOCKed memory is not included in VmLck

reboot.2

Michael Kerrisk

Place 'cmd' values in alphabetical order

subpage_prot.2

Michael Kerrisk

Change 1-line page description

Michael Kerrisk

Improvements after review by Paul Mackerras

timer_settime.3

Michael Kerrisk

Remove redundant SEE ALSO reference

eidaccess.3

Michael Kerrisk

Note the use of faccessat(2) to operate on symbolic links

Michael Kerrisk

Note that the use of eidaccess() is racy

fenv.3

Michael Kerrisk

Clarify wording relating to glibc version

getgrent.3

getgrent_r.3

getgrnam.3

Michael Kerrisk

Refer reader for group(5) for more info on group structure

getopt.3

Bernhard Walle

Use constants in getopt_long() example

The description of getopt_long() mentions the constants
required_argument, no_argument and optional_argument.

Use them in the example to make the code easier to understand.

getpw.3

Michael Kerrisk

Change comment describing pw_gecos

getpw.3

getpwent.3

getpwent_r.3

Michael Kerrisk

Refer reader to passwd(5) for more info on the passwd structure

getpwent.3

getpwnam.3

Michael Kerrisk

Note that pw_gecos is not in POSIX

And change the comment describing this field

getpwent_r.3

Michael Kerrisk

Change comment describing pw_gecos

getpwnam.3

Michael Kerrisk

Some rewording and restructuring

sched_getcpu.3

Michael Kerrisk

Fix feature test macro requirements

strlen.3

Michael Kerrisk

Fix feature test macro requirements

group.5

Michael Kerrisk

Various minor rewordings

hosts.5

protocols.5

spufs.7

termio.7

David Prevot

Remove definite article from NAME section

Please find inline another tiny patch in order to shrink the definite article from some other pages (found with "rgrep -i '\\\\- the' man*").

passwd.5

Michael Kerrisk

Various minor rewordings

proc.5

Michael Kerrisk

Add reference to mlock(2) for further info on /proc/PID/status VmLck

armscii-8.7

David Prevtot

Write the character set name as ArmSCII

cp1251.7

David Prevtot

Capitalize hexadecimal numbers

ip.7

David Prevtot

Fix name of socket option: s/IP_TTL/IP_TRANSPARENT/

David Prevtot

Place socket options in alphabetical order

koi8-r.7

David Prevtot

Fix special character names

Comparing to koi8-u.7, I noticed some inconsistencies in special character names. After checking with the following Unicode related pages, please find inline (and gzipped attached, hopefully not messing with encoding), a patch in order to make it right, on an Unicode point of view.

<http://www.unicode.org/charts/PDF/U2500.pdf>

<http://www.unicode.org/charts/PDF/U25A0.pdf>

<http://www.unicode.org/charts/PDF/U0080.pdf>

<http://www.unicode.org/charts/PDF/U1D400.pdf>

David Prevtot

Fix SEE ALSO reference and letter names

The koi8-r(7) (Russian Net Character Set) manual page refers to iso-8859-7(7) manual page, which is the Latin/Greek one.

I guess it should refer instead to the iso-8859-5(7)

(Latin/Cyrillic) one. This is addressed at the end of the patch.

It has also been spotted that letter names are different in this manual page and in the Unicode related page [0], the first part of the page address this.

0: <http://www.unicode.org/charts/PDF/U0400.pdf>

man-pages.7

Michael Kerrisk

Update example

The old example used the chmod(2) man page, but the feature test macro requirements on that page had changed.

Update to use an example from a different page (acct(2), whose feature test macro requirements are probably unlikely

to change in the future).

==== Changes in man-pages-3.31 =====

Released: 2010-11-12, Munich

Contributors

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

getrlimit.2

Michael Kerrisk
Added documentation of prlimit()
prlimit() is new in kernel 2.6.36.

inotify.7

Michael Kerrisk
Document IN_EXCL_UNLINK
This flag was added in Linux 2.6.36.
See kernel commit 8c1934c8d70b22ca8333b216aec6c7d09fdbd6a6.

New and changed links

prlimit.2

Michael Kerrisk
New link to getrlimit.2

Changes to individual pages

getrlimit.2

Michael Kerrisk

Remove unneeded text in DESCRIPTION

intro.2

Michael Kerrisk

Added various pages to SEE ALSO

kexec_load.2

Michael Kerrisk

Add kernel version where KEXEC_PRESERVE_CONTEXT first appeared

Added kernel version number where KEXEC_ON_CRASH first appeared

Fix copyright

Make copyright in the name of Intel corporation

VERSIONS: Fix version number

kexec_load() was first implemented in 2.6.13, though the entry
in the system call table was reserved starting in 2.6.7.

migrate_pages.2

Michael Kerrisk

SEE ALSO: Add reference to Documentation/vm/page_migration

sched_setaffinity.2

Michael Kerrisk

Add missing word "real" to "user ID"

syscalls.2

Michael Kerrisk

Fix kernel version number for kexec_load

kexec_load() was first implemented in 2.6.13, though the entry
in the system call table was reserved starting in 2.6.7.

Michael Kerrisk

Add prlimit() to list

intro.3

Michael Kerrisk

Added various pages to SEE ALSO

printf.3

Michael Kerrisk

Formatting fixes in example code

hostname.7

Michael Kerrisk

Small improvement to description of domains

See: https://bugzilla.novell.com/show_bug.cgi?id=651900

===== Changes in man-pages-3.32 =====

Released: 2010-12-03, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

pthread_sigqueue.3

Michael Kerrisk

New page documenting pthread_sigqueue()

pthread_sigqueue() is new in glibc 2.11 (requires a kernel with
rt_tgsigqueinfo(), added in Linux 2.6.31).

Newly documented interfaces in existing pages

readv.2

Michael Kerrisk

Add documentation of preadv() and pwritev()

The preadv() and pwritev() system calls were added in

Linux 2.6.30.

New and changed links

preadv.2

Michael Kerrisk

New link to readv.2

pwritev.2

Michael Kerrisk

New link to readv.2

Changes to individual pages

chdir.2

Michael Kerrisk

Remove redundant and incorrect info on FTMs from NOTES

chown.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

clock_nanosleep.2

Michael Kerrisk

Clarify that clock_nanosleep() suspends the calling *thread*

epoll_create.2

Michael Kerrisk

Note that 'size' argument must be greater than 0

See https://bugzilla.kernel.org/show_bug.cgi?id=23872

Michael Kerrisk

Added VERSIONS section

epoll_ctl.2

Michael Kerrisk

Added VERSIONS section

epoll_wait.2

Michael Kerrisk

Updated VERSIONS section

fcntl.2

Michael Kerrisk

Add notes on fcntl64()

fstatat.2

Michael Kerrisk

Add NOTES on fstatat64(), the name of the underlying system call

getdents.2

Michael Kerrisk

Added notes on getdents64()

getgid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

getgroups.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

getpagesize.2

Michael Kerrisk

Improve description of getpagesize()

Improve description of getpagesize() and relocate discussion of sysconf(_SC_PAGESIZE).

In part inspired by

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=537272>

getresuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

getrlimit.2

Michael Kerrisk

Add example program for prlimit()

getuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

open.2

Ivana Hutarova Varekova

O_EXCL can be used without O_CREAT for block devices

Since Linux 2.6 there is a possibility to use O_EXCL without O_CREAT. See patch: <http://lkml.org/lkml/2003/8/10/221>.

pread.2

Michael Kerrisk

Add notes on pread64() and pwrite64()

See https://bugzilla.kernel.org/show_bug.cgi?id=23072

Michael Kerrisk

SEE ALSO: add readv(3)

readv.2

Michael Kerrisk

Wording fix: readv() and writev() are system calls, not functions

sendfile.2

Michael Kerrisk

Add notes on sendfile64()

setfsuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

setfsuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

setgid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

setresuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

setreuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

setuid.2

Michael Kerrisk

Add NOTES explaining 32-bit system calls added in Linux 2.4

sigqueue.2

pthread.7

signal.7

Michael Kerrisk

SEE ALSO: Add pthread_sigqueue(3)

stat.2

Michael Kerrisk

Fix EOVERFLOW error description

2<<31 should read 1<<31 (which equals 2^31).

statfs.2

Michael Kerrisk

Add notes on statfs64() and fstatfs64()

swapon.2

Hugh Dickins

Document SWAP_FLAG_DISCARD and discarding of swap pages

truncate.2

Michael Kerrisk

Add notes on truncate64() and ftruncate64()

memcpy.3

Michael Kerrisk

Change "should not overlap" to "must not overlap"

glibc 2.12 changed things so that applications that use memcpy() on overlapping regions will encounter problems. (The standards have long said that the behavior is undefined if the memory areas overlap.)

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=603144>

In reference of <http://lwn.net/Articles/414467/>

and <http://article.gmane.org/gmane.comp.lib.glibc.alpha/15278>

usleep.3

Petr Uzel

usleep() suspends calling thread, not process

core.5

Michael Kerrisk

Change single quote to double quote in shell session example

The example section has a sample shell session containing:

```
echo '$PWD/core_pattern_pipe_test %p UID=%u GID=%g sig=%s'
```

But \$PWD won't be expanded in single quotes. It should be double quotes around the entire argument or some other form.

pthread.7

Michael Kerrisk

Added description of async-cancel-safe functions

unix.7

Michael Kerrisk

Reworded the text of various errors

Michael Kerrisk

Added ENOENT error

==== Changes in man-pages-3.33 =====

Released: 2011-09-16, Munich

Contributors

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

sync.2

Michael Kerrisk

Added new syncfs() system call

syncfs() was added in Linux 2.6.39.

New and changed links

syncfs.2

Michael Kerrisk

New link for sync(2).

Global changes

Various pages

Simon Paillard

Global fix: properly escape minus sign

Changes to individual pages

clone.2

Michael Kerrisk

Note that CLONE_STOPPED was removed in 2.6.38

execve.2

Michael Kerrisk [Sebastian Geiger]

Note that the first argv[] value should contain name of executable

fcntl.2

Michael Kerrisk [Reuben Thomas]

Note that F_GETFL also retrieves file access mode

getrlimit.2

Michael Kerrisk [Ryan Mullen]

Remove mention of kernel versions in discussion of RLIMIT_CPU

Michael Kerrisk [Seonghun Lim]

Fix example program and add `_FILE_OFFSET_BITS` requirement

mlock.2

Michael Kerrisk [Brian M. Carlson]

Clarify `EINVAL` error

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?625747>

Michael Kerrisk [Seonghun Lim]

Simplify and correct text for `EPERM` error

mprotect.2

Seonghun Lim

Fix off-by-one error in a memory range

Seonghun Lim

Fix small bug in example program

The description of the example program says that it makes the third page "read-only". Thus use `PROT_READ` instead of `PROT_NONE`.

open.2

Folkert van Heusden

Remove text describing `O_CLOEXEC` as Linux-specific
`O_CLOEXEC` is specified in POSIX.1-2008, as noted elsewhere in the page.

readlink.2

Michael Kerrisk [Dan Jacobson]

SEE ALSO: Add `readlink(1)`

sendfile.2

Akira Fujita

Since 2.6.33, 'out_fd' can refer to any file type

Linux kernel commit [cc56f7de7f00d188c7c4da1e9861581853b9e92f](https://git.kernel.org/cgit/linux/kernel/git/torvalds/linux.git/commit/?id=cc56f7de7f00d188c7c4da1e9861581853b9e92f)
meant `sendfile(2)` can work with any output file.

Michael Kerrisk

Shift text on falling back to `read()/write()` to NOTES

Michael Kerrisk [Tolga Dalman]

Remove mention of kernel version for 'in_fd' argument

Tolga Dalman

Add an explicit reference to `splice(2)`

Unlike `sendfile()`, `splice()` can transfer data between a pair of sockets.

sigaction.2

Michael Kerrisk [Tolga Dalman]

Add a little info about `ucontext_t`

stat.2

Michael Kerrisk [Jon Grant]

Small rewording of ENAMETOOLONG error

sync.2

Michael Kerrisk

Some rewrites to description of sync()

syscalls.2

Michael Kerrisk

Added fanotify_init() and fanotify_mark() to syscall list

Michael Kerrisk

Added new 2.6.39 system calls

Michael Kerrisk

Updated for Linux 3.0 system calls

Michael Kerrisk

Update kernel version at head of syscall list

Michael Kerrisk

Update to mention 3.x kernel series

syslog.2

Michael Kerrisk [Serge E. Hallyn]

Update for kernel 2.6.37 changes

Document /proc/sys/kernel/dmesg_restrict.

Document CAP_SYSLOG.

time.2

Michael Kerrisk [Alexander Schuch]

NOTES: Fix description of "Seconds since the Epoch"

timerfd_create.2

Michael Kerrisk [Josh Triplett]

Note behavior when timerfd_settime() old_value is NULL

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?641513>

Tomislav Jonjic

Fix small error in description of timerfd_settime()

truncate.2

Seonghun Lim

Remove redundant EINTR description

unlink.2

Hendrik Jan Thomassen

Improve EBUSY description

cacos.3

cacosh.3

catan.3

catanh.3

Michael Kerrisk [Richard B. Kreckel, Andries Brouwer]

Fix formula describing function

The man pages for `cacos()`, `cacosh()`, `catan()`, `catanh()` contain incorrect formulae describing the functions.

`cacos.3`

Michael Kerrisk

Add example program

`cacosh.3`

Michael Kerrisk

Add example program

`cacosh.3`

`casinh.3`

`catan.3`

`catanh.3`

Michael Kerrisk

SEE ALSO: Add reference to inverse function

`catan.3`

Michael Kerrisk

Add example program

`catanh.3`

Michael Kerrisk

Add example program

`ccos.3`

`ccosh.3`

`csin.3`

`csinh.3`

`ctan.3`

`ctanh.3`

Michael Kerrisk

SEE ALSO Add reference to "arc" inverse function

`cexp.3`

Michael Kerrisk

SEE ALSO: add `cexp(3)`

`clog.3`

Michael Kerrisk

SEE ALSO: Add reference to `clog(2)`

`crypt.3`

Michael Kerrisk [Jan Engelhardt]

Fix header file and feature test macro requirements for `crypt_r()`

err.3

Seonghun Lim

Clean up description of error message source

In the second paragraph of DESCRIPTION section, one of the sources of error messages is incorrect: the four functions obtain error message only from errno, and "a code" is just relevant with errc() and warnc(), which are not present on Linux.
see <http://www.unix.com/man-page/freebsd/3/ERR/> .

Then, the third paragraph becomes a duplicate.

fflush.3

Regid Ichira

Fix wording error

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?614021>

hsearch.3

Seonghun Lim

Update ERRORS section

EINVAL can occur for hdestroy_r().

EINVAL can't occur for hcreate().

Other minor fixes.

lockf.3

Michael Kerrisk [Mikel Ward]

ERRORS: EBADF can also occur for nonwritable file descriptor

As noted in the DESCRIPTION, the file descriptor must be writable in order to place a lock.

malloc.3

Seonghun Lim

Reorder prototypes in SYNOPSIS

calloc() comes before realloc() in the other sections,
so should do in SYNOPSIS, too.

mbstowcs.3

Michael Kerrisk

SEE ALSO: add reference to wcstombs(3)

memcmp.3

Michael Kerrisk [Sebastian Unger]

Clarify that comparison interprets bytes as "unsigned char"

realpath.3

Michael Kerrisk [Seonghun Lim]

Fix EINVAL error

Since glibc 2.3, resolved_path can be non-NULL (with the semantics already documented in the page).

scandir(3)

Mike Frysinger

Add ENOENT/ENOTDIR errors

siginterrupt.3

Michael Kerrisk [Luis Javier Merino]

Remove misleading sentence about signal(2) and system call interruption

strlen.3

Michael Kerrisk [Jon Grant]

SEE ALSO: Add strnlen(3)

strnlen.3

Michael Kerrisk [Jon Grant]

CONFORMING TO: Note that strnlen() is in POSIX.1-2008

strtoul.3

Michael Kerrisk [Tolga Dalman]

Fix NOTES section constants

termios.3

Michael Kerrisk

Use "terminal special characters" consistently throughout page

Michael Kerrisk [Paul Evans]

Add documentation of _POSIX_VDISABLE

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=627841>

Michael Kerrisk

Add a description of STATUS character

Michael Kerrisk

Added description of SWTCH character

Michael Kerrisk

Add names of terminal special characters

Michael Kerrisk

List terminal special characters in alphabetical order

wcstombs.3

Michael Kerrisk

SEE ALSO: add mbstowcs(3)

console_codes.4

Petr Písar

Add ESC [3 J

Linux 3.0 (commit f8df13e0a901fe55631fed66562369b4dba40f8b)

implements \E[3J to allow scrambling content of console

including scroll-back buffer

(<http://thread.gmane.org/gmane.linux.kernel/1125792>).

proc.5

Michael Kerrisk [Stan Sieler]

Add description of 'PPid' field of /proc/PID/status

Michael Kerrisk [Stan Sieler]

Add description of 'SigQ' field of /proc/PID/status

capabilities.7

Michael Kerrisk [Serge E. Hallyn]

Document CAP_SYSLOG and related changes in Linux 2.6.37

Michael Kerrisk

File capabilities are no longer optional

Starting with Linux 2.6.33, the CONFIG_SECURITY_FILE_CAPABILITIES has been removed, and file capabilities are always part of the kernel.

complex.7

Michael Kerrisk

Updated SEE ALSO list to include all complex math functions

ipv6.7

Michael Kerrisk [Simon Cross]

Fix description of address notation: "8 4-digit hexadecimal numbers"

signal.7

Seonghun Lim

Remove crufty repeated info about LinuxThreads

unix.7

Michael Kerrisk

Add pointer to cmsmsg(3) for an example of the use of SCM_RIGHTS

==== Changes in man-pages-3.34 =====

Released: 2011-09-23, Munich

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Apologies if I missed anyone!

New and rewritten pages

rt_sigqueueinfo.2

Michael Kerrisk [Stephan Mueller]

New page for rt_sigqueueinfo(2) and rt_tgsigqueueinfo(2)

This replaces the previous '.so' man page link file for
rt_sigqueueinfo.2, which linked to this sigqueue() man page.

cciss.4

Stephen M. Cameron

New man page for cciss driver

I obtained the information in this man page as a consequence
of having worked on the cciss driver for the past several years,
and having written considerable portions of it.

Michael Kerrisk

Copyedit by mtk

hpsa.4

Stephen M. Cameron

New man page for the hpsa driver

I obtained the information in this man page as a consequence
of being the main author of the hpsa driver.

Michael Kerrisk

Copyedits my mtk

Newly documented interfaces in existing pages

fstatat.2

Michael Kerrisk [David Howells]

Document AT_NO_AUTOMOUNT

This flag was added in Linux 2.6.38.

lseek.2

Michael Kerrisk [Eric Blake, Sunil Mushran]

Document SEEK_HOLE and SEEK_DATA

These flags, designed for discovering holes in a file,
were added in Linux 3.1. Included comments from Eric
Blake and Sunil Mushran.

madvise.2

Doug Goldstein

Add MADV_HUGEPAGE and MADV_NOHUGEPAGE

Document the MADV_HUGEPAGE and MADV_NOHUGEPAGE flags added to
madvise() in Linux 2.6.38.

New and changed links

rt_tgsigqueueinfo.2

Michael Kerrisk

New link to new rt_sigqueueinfo.2 page

sigqueue.2

Michael Kerrisk

Create link to page that was relocated to section 3

Global changes

Various pages

Michael Kerrisk

Change reference to "sigqueue(2)" to "sigqueue(3)"

Changes to individual pages

fallocate.2

Michael Kerrisk

ERRORS: Add EPERM and ESPIPE errors

lseek.2

Michael Kerrisk [Alan Curry, Reuben Thomas]

Remove suspect note about 'whence' being incorrect English

prctl.2

Paul Pluzhnikov

PR_SET_DUMPABLE makes process non-pttrace-attachable

readlink.2

Guillem Jover

Document using st_size to allocate the buffer

Michael Kerrisk

Added copyright text + changelog note for Guillem Jover's patch

sched_setscheduler.2

Michael Kerrisk

Document 2.6.39 changes to rules governing changes from SCHED_IDLE policy

Since Linux 2.6.39, unprivileged processes under the SCHED_IDLE policy can switch to another nonrealtime policy if their nice value falls within the range permitted by their RLIMIT_NICE limit.

tkill.2

Michael Kerrisk

SEE ALSO: Add rt_sigqueueinfo (2)

btowc.3, wctob.3

Michael Kerrisk [Brian M. Carlson]

Add pointers to better, thread-safe alternative functions

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=606899>

fwide.3

Michael Kerrisk

Add _ISOC95_SOURCE to feature test macro requirements

Since glibc 2.12, _ISOC95_SOURCE can also be used to expose prototype of this function.

index.3

Michael Kerrisk [Jon Grant]

Fix text mentioning terminating null

pthread_sigqueue.3

Michael Kerrisk

Replace explicit mention of rt_tgsigqueueinfo() with SEE ALSO reference

sigqueue.3

Michael Kerrisk

Move this page to section 3

Now that the underlying system call rt_sigqueueinfo(2) is properly documented, move sigqueue() to Section 3, since

it is really a library function.

Michael Kerrisk

Update text in line with existence of new `rt_sigqueueinfo.2` page

`wcsnlen.3`

Jon Grant

Improve description of 'maxlen' argument

It's worth clarifying 'maxlen' is in wide-char units, not bytes.

`wprintf.3`

Michael Kerrisk

Add `_ISOC95_SOURCE` to feature test macro requirements

Since `glibc 2.12`, `_ISOC95_SOURCE` can also be used to expose prototype of these functions.

`feature_test_macros.7`

Michael Kerrisk

Document `_ISOC95_SOURCE`

`_ISOC95_SOURCE` was added in `glibc 2.12` as a means to expose C90 Amendment 1 definitions.

`ip.7`

Benjamin Poirier [Neil Horman]

Improve description of `IP_MTU_DISCOVER`

`signal.7`

Michael Kerrisk

SEE ALSO: Add `rt_sigqueueinfo(2)`

==== Changes in man-pages-3.35 =====

Released: 2011-10-04, Munich

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Apologies if I missed anyone!

New and rewritten pages

recvmmsg.2

Andi Kleen, Michael Kerrisk
New man page for recvmmsg(2)

setns.2

Eric W. Biederman
New manual page for setns(2)
Michael Kerrisk
Various improvements

Global changes

Various pages

Michael Kerrisk
Global fix: remove spaces around em-dash
Normal English typographical convention is not to have
spaces around em dashes.

Various pages

Michael Kerrisk
Global fix: s/null pointer/NULL pointer/

Various pages

Michael Kerrisk
Global fix: use ORing
Use "ORing", not "OR'ing", nor an italic ".IR OR ing".

Various pages

Michael Kerrisk
Global fix: consistent use of "null wide character"
Bring more consistency to the discussion of
"[terminating] null wide character"
by writing (at least in the initial use in a page)
"[terminating] null wide character (L\0)".

Various pages

Michael Kerrisk

Global fix: consistent use of "null byte"

Bring more consistency to the discussion of

"[terminating] null byte"

by writing (at least in the initial use in a page)

"[terminating] null byte ('\0')."

mount.2, prctl.2

Michael Kerrisk

s/task/thread/ for consistency with other pages

Changes to individual pages

lseek.2

Guillem Jover

CONFORMING TO: Note other systems that have SEEK_HOLE+SEEK_DATA

recv.2

Michael Kerrisk

Add mention of recvmsg(2)

recvmsg.2

Michael Kerrisk

SEE ALSO: add sendmsg(2)

send.2

Michael Kerrisk

CONFORMING TO: POSIX.1-2008 adds MSG_NOSIGNAL

sigwaitinfo.2

Michael Kerrisk

Note that attempts to wait for SIGKILL and SIGSTOP are silently ignored

stat.2

Michael Kerrisk

Note POSIX.1-2001 and POSIX.1-2008 requirements for lstat()

Michael Kerrisk

Regarding automounter action, add a reference to fstatat(2)

Michael Kerrisk

Clean up text describing which POSIX describes S_IF* constants

aio_cancel.3

Michael Kerrisk [Jon Grant]

Clarify meaning of "return status" and "error status"

gets.3

Michael Kerrisk

POSIX.1-2008 marks gets() obsolescent

The page formerly erroneously stated that POSIX.1-2008 removed the specification of this function.

mbsnrtowcs.3

Michael Kerrisk

CONFORMING TO: Add POSIX.1-2008

This function is specified in the POSIX.1-2008 revision.

regex.3

Michael Kerrisk [Reuben Thomas]

Change "terminating null" to "terminating null byte"

stpcpy.3

stpncpy.3

Mike Frysinger

Note that these functions are in POSIX.1-2008

Update the "CONFORMING TO" sections of these functions to note that they are now part of the POSIX.1-2008 standard.

stpncpy.3

Michael Kerrisk

Change "terminating null" to "terminating null byte"

strcpy.3

Mike Frysinger

SEE ALSO: Add stpncpy(3)

strdup.3

Michael Kerrisk

CONFORMING TO: strdup() is in POSIX.1-2008

wcpcpy.3

wcpncpy.3

wcsnlen.3

wcsnrtombs.3

Michael Kerrisk

CONFORMING TO: Add POSIX.1-2008

These functions are specified in the POSIX.1-2008 revision.

proc.5

Eric W. Biederman

Document /proc/[pid]/ns/

Michael Kerrisk

Some edit's to Eric Biederman's /proc/[pid]/ns/ additions

capabilities.7

Michael Kerrisk

List setns(2) as an operation allowed by CAP_SYS_ADMIN

==== Changes in man-pages-3.36 =====

Released: 2012-02-27, Christchurch

Contributors

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Apologies if I missed anyone!

New and rewritten pages

sendmmsg.2

Michael Kerrisk [Stephan Mueller]

New page for sendmmsg(2)

Some pieces inspired by an initial attempt by Stephan Mueller.

Newly documented interfaces in existing pages

fallocate.2

Lucian Adrian Grijincu

Document FALLOC_FL_PUNCH_HOLE

FALLOC_FL_PUNCH_HOLE was added in Linux 2.6.38,
for punching holes in the allocated space in a file.

Changes to individual pages

dup.2

Michael Kerrisk

SYNOPSIS: Add "#include <fcntl.h>" for O_* constants

fallocate.2

Michael Kerrisk

Substantial restructuring of DESCRIPTION

The addition of a second class of operation ("hole punching")
to the man page made it clear that some significant restructuring
is required. So I substantially reworked the page, including the
preexisting material on the default "file allocation" operation.

Michael Kerrisk [Josef Bacik]

Add further details for FALLOC_FL_PUNCH_HOLE

Michael Kerrisk

ERRORS: Add EPERM error case for FALLOC_FL_PUNCH_HOLE

fork.2

Michael Kerrisk

NOTES: Describe clone() call equivalent to fork()

fsync.2

Christoph Hellwig

Various improvements

- explain the situation with disk caches better
- remove the duplicate fdatasync() explanation in the NOTES
section
- remove an incorrect note about fsync() generally requiring two
writes
- remove an obsolete ext2 example note
- fsync() works on any file descriptor (doesn't need to be

writable); correct the EBADF error code explanation

Michael Kerrisk [Guillem Jover]

Note that some systems require a writable file descriptor

An edited version of Guillem Jover's comments:

[While the file descriptor does not need to be writable on Linux] that's not a safe portable assumption to make on POSIX in general as that behavior is not specified and as such is implementation-specific. Some Unix systems do actually fail on read-only file descriptors, for example [HP-UX and AIX].

mount.2

Michael Kerrisk [Junjiro Okajima]

Removed erroneous statement about MS_RDONLY and bind mounts

open.2

Jessica McKellar

Fix grammar in O_DIRECT description

Some small grammar fixes to the O_DIRECT description.

pipe.2

Michael Kerrisk [Salvo Tomaselli]

SYNOPSIS: Add "#include <fcntl.h>" for O_* constants

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=659750>

sched_rr_get_interval.2

Clemens Ladisch

Update notes on modifying quantum

Since Linux 2.6.24, it is no longer possible to modify the SCHED_RR quantum using setpriority(2). (Slight edits to Clemens' patch by mtk.)

Michael Kerrisk

Reordered various pieces of text

Michael Kerrisk

Reworded text of ESRCH error

send.2

Michael Kerrisk

Add mention of sendmmsg(2)

sync.2

Michael Kerrisk [Simone Piccardi]

PROTOTYPE: Fix return type of syncfs()

vfork.2

Michael Kerrisk [starlight]

Clarify what is duplicated in the child

Add some words to make it clear to the reader that vfork(), like fork(), creates duplicates of process attributes

in the child.

Michael Kerrisk

Note clone() flags equivalent to vfork()

Michael Kerrisk [starlight, Mike Frysinger]

Add some notes on reasons why vfork() still exists

Michael Kerrisk [starlight]

Clarify that calling *thread* is suspended during vfork()

Michael Kerrisk

CONFORMING TO: Note that POSIX.1-2001 marked vfork() obsolete

gets.3

Michael Kerrisk

Document C11 and glibc 2.16 changes affecting gets()

pthread_sigmask.3

Michael Kerrisk [Pat Pannuto]

Fix comment that was inconsistent with code in example program

sem_wait.3

Walter Harms

EXAMPLE: Remove extraneous line of output from shell session

wcsnrtombs.3

wcsrtombs.3

wcstombs.3

Michael Kerrisk

Fix-ups for e9c23bc636426366d659809bc99cd84661e86464

core.5

Michael Kerrisk [Junjiro Okajima]

Document %E specifier for core_pattern

passwd.5

Michael Kerrisk [Walter Haidinger]

s/asterisk/asterisk (*)/ to improve clarity

Michael Kerrisk

Correct note on passwd field value when shadowing is enabled

When password shadowing is enabled, the password field contains an 'x' (not '*').

proc.5

Elie De Brauer

Fix description of fourth field of /proc/loadavg

Signed-off-by: Elie De Brauer <eliedebrauer@gmail.com>

resolv.conf.5

Michael Kerrisk [Slaven Rezic]

Describe syntax used for comments

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=656994>

feature_test_macros.7

Michael Kerrisk

Document _ISOC11_SOURCE

inotify.7

Michael Kerrisk [Yang Yang]

Note that 'cookie' field is set to zero when unused

man.7

Michael Kerrisk

Various fixes for description of NAME section

As noted by reporter:

- * The code sample given for the NAME section is incomplete because the actual content sample is not given.
- * Additionally, the description assumes that the item described is a command, which need not be the case.
- * The command makewhatis is not present on my system; the documented tool to create the whatis database is called mandb.
- * The description on .SH NAME in man(7) should either copy the relevant paragraph of lexgrog(1) or refer to it.

===== Changes in man-pages-3.37 =====

Released: 2012-03-06, Christchurch

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Oleg Nesterov <oleg@redhat.com>

Tejun Heo <tj@kernel.org>

Apologies if I missed anyone!

New and rewritten pages

getent.1

Mark R. Bannister

New page to document 'getent' binary provided by glibc

Changes to individual pages

bdflush.2

Michael Kerrisk

Note that bdflush() is deprecated, and does nothing

nfsservctl.2

Michael Kerrisk

Note that this system call was removed in Linux 3.1

ptrace.2

Denys Vlasenko [Oleg Nesterov, Tejun Heo]

add extended description of various ptrace quirks

Changes include:

s/parent/tracer/g, s/child/tracee/g - ptrace interface now is sufficiently cleaned up to not treat tracing process as parent.

Deleted several outright false statements:

- pid 1 can be traced
- tracer is not shown as parent in ps output
- PTRACE_ATTACH is not "the same behavior as if tracee had done a PTRACE_TRACEME": PTRACE_ATTACH delivers a SIGSTOP.
- SIGSTOP _can_ be injected.
- Removed mentions of SunOS and Solaris as irrelevant.
- Added a few more known bugs.

Added a large block of text in DESCRIPTION which doesn't focus on mechanical description of each flag and operation, but rather tries to describe a bigger picture. The targeted audience is a person which is reasonably knowledgeable in Unix but did not spend years working with ptrace, and thus may be unaware of its quirks. This text went through several iterations of review by Oleg Nesterov and Tejun Heo.

This block of text intentionally uses as little markup as possible, otherwise future modifications to it will be very hard to make.

Michael Kerrisk

Global clean-up of page

- * Wording and formatting fixes to existing text and Denys Vlasenko's new text.
- * Various technical amendments and improvements to

Denys Vlasenko's new text.

* Added FIXME for various problems with the current text.

Michael Kerrisk

Integrated changes after further review from Denys Vlasenko

syscalls.2

Michael Kerrisk

Note that nfsservctl(2) was removed in Linux 3.1

Note that bdflush(2) is deprecated

capabilities.7

Michael Kerrisk

Add CAP_WAKE_ALARM

Michael Kerrisk

Add various operations under CAP_SYS_ADMIN

Add perf_event_open(2) to CAP_SYS_ADMIN

Add VM86_REQUEST_IRQ vm86(2) command to CAP_SYS_ADMIN

Update CAP_NET_ADMIN with notes from include/linux/capability.h

Add nfsservctl(2) to CAP_SYS_ADMIN

Michael Kerrisk

Add ioctl(FIBMAP) under CAP_SYS_RAWIO

Michael Kerrisk

Add virtual terminal ioctl(s) under CAP_SYS_TTY_CONFIG

Michael Kerrisk

Update CAP_NET_RAW with notes from include/linux/capability.h

Michael Kerrisk

Add F_SETPIPE_SZ case to CAP_SYS_RESOURCE

Add POSIX messages queues queues_max case to CAP_SYS_RESOURCE

Update CAP_SYS_RESOURCE with notes from include/linux/capability.h

Michael Kerrisk

SEE ALSO: Add libcap(3)

ld.so.8

Michael Kerrisk

Add --audit command-line option

==== Changes in man-pages-3.38 =====

Released: 2012-03-25, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

get_nprocs_conf.3

Beas Petr

New page documenting get_nprocs_conf(3) and get_nprocs(3)

Michael Kerrisk

Some additions and improvements

malloc_get_state.3

Michael Kerrisk

New page documenting malloc_get_state(3) and malloc_set_state(3)

mallopt.3

Michael Kerrisk

New man page for mallopt(3)

mtrace.3

Michael Kerrisk

Complete rewrite of page, adding much more detail

scandirat.3

Mark R Bannister

New page for scandirat(3) (new in glibc 2.15)

Newly documented interfaces in existing pages

posix_memalign.3

Michael Kerrisk

Document aligned_alloc(3)

aligned_alloc() is new in C11.

Michael Kerrisk

Document pvalloc(3)

qsort.3

Mark R Bannister

Add documentation of qsort_r(3)

Ben Bacarisse

Improvements to Mark R Bannister's qsort_r() patch

Michael Kerrisk

Add VERSIONS section for qsort_r()

New and changed links

aligned_alloc.3

Michael Kerrisk

New link to posix_memalign.3

get_nprocs.3

Beas Petr

Link to new get_nprocs_conf.3 page

malloc_set_state.3

Michael Kerrisk

Link to new malloc_get_state.3 page

pvalloc.3

Michael Kerrisk

New link to posix_memalign.3

Global changes

Various pages

Michael Kerrisk

Global formatting fix: balance .nf/.fi pairs

Various pages

Michael Kerrisk

Global fix: place sections in correct order

Various pages

Michael Kerrisk [Justin T Pryzby]

Global fix: Remove duplicated words

Remove instances of duplicate words found using Justin's
grep-fu:

```
for f in man?/*.[1-9]; do
  grep -HE '([[alpha:]]{2,}+)\1 "$f" |
  grep -Evw '(proc|hugetlbfs|XXX*|root|long) *\1';
done | grep -E --colo '([[alpha:]]{2,}+)\1'
```

Various pages

Michael Kerrisk

Correct order of SEE ALSO entries

Changes to individual pages

futimesat.2

Michael Kerrisk

PROTOTYPE: Correct header file and feature test macro requirements

keyctl.2

Bjarni Ingi Gislason

Strip trailing tabs from source line

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=664688>

ptrace.2

Denys Vlasenko

Document PTRACE_GETEVENTMSG for PTRACE_EVENT_EXEC

Denys Vlasenko

Various fixes to recent updates of this page

symlinkat.2

Michael Kerrisk [Eric Blake]

PROTOTYPE: Correct header file

syscalls.2

Michael Kerrisk

Remove unimplemented system calls from main syscall list

The unimplemented system calls are in any case noted lower down
in the page. Also: rearrange the text describing the unimplemented
system calls.

Michael Kerrisk

Note a few system calls that were removed in Linux 2.6

Michael Kerrisk

Add `process_vm_readv(2)` and `process_vm_writev(2)`

`unlinkat.2`

Michael Kerrisk [Eric Blake]

PROTOTYPE: Correct header file

Michael Kerrisk

PROTOTYPE: Add `<fcntl.h>` for `AT_*` constants

`utimensat.2`

Michael Kerrisk

PROTOTYPE: Add `<fcntl.h>` for `AT_*` constants

`copysign.3`

Michael Kerrisk [Tolga Dalman]

DESCRIPTION: Add a couple of examples

`malloc.3`

Michael Kerrisk

NOTES: Add a short discussion of arenas

Michael Kerrisk

Replace discussion of `MALLOC_CHECK_*` with pointer to `mallopt(3)`

Michael Kerrisk

SEE ALSO: Add `mtrace(3)`

SEE ALSO: add `malloc_get_state(3)`

`posix_memalign.3`

Michael Kerrisk

Rename `memalign()` argument

Rename "boundary" to "alignment" for consistency
with `posix_memalign()`.

Michael Kerrisk

Improve discussion of feature test macros and header files for `valloc(3)`

`rtnetlink.3`

Kirill Brilliantov [Sergei Zhirikov]

Fix example code, `rta_len` assignment should use `RTA_LENGTH()`

See also <http://bugs.debian.org/655088>

`scandir.3`

Mark R Bannister

SEE ALSO: Add `scandirat(3)`

`sigqueue.3`

Nix

Remove `rt_sigqueueinfo` from TH line

`rt_sigqueueinfo()` now has its own manual page, so should not

be listed in the .TH line of this page.

tzset.3

Peter Schiffer

Correct description for Julian 'n' date format

The Julian 'n' date format counts starting from 0, not 1.

Michael Kerrisk

Add some clarifying remarks to discussion of Julian day formats

packet.7

Michael Kerrisk [Iain Fraser]

Fix comment on 'sll_hatype' field

tcp.7

Michael Kerrisk [Artyom Pervukhin]

Correct RFC for TIME_WAIT assassination hazards

===== Changes in man-pages-3.39 =====

Released: 2012-04-17, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

malloc_trim.3

Michael Kerrisk

New man page for malloc_trim(3)

malloc_usable_size.3

Michael Kerrisk

New man page for malloc_usable_size(3)

Newly documented interfaces in existing pages

prctl.2

Cyrill Gorcunov

Document PR_SET_MM (new in Linux 3.3)

Michael Kerrisk

Various edits and improvements to Cyrill's patch

Changes to individual pages

epoll_create.2

Michael Kerrisk

Rework discussion of 'size' argument

Michael Kerrisk

Add .SS for description of epoll_create1()

epoll_wait.2

Michael Kerrisk [Armin Rigo]

Another thread can add to epoll instance while epoll_wait is blocked

See https://bugzilla.kernel.org/show_bug.cgi?id=43072

Michael Kerrisk

Clarify that epoll_pwait() blocks calling *thread*

A few wording improvements

fcntl.2

Michael Kerrisk [Mike Frylinger]

Note difference between glibc wrapper and underlying system call

The wrapper function has a 'flags' argument (which currently serves no purpose), while the underlying system call does not.

fcntl.2

Abhijith Das

Explain behaviour of F_GETLEASE during lease break

Michael Kerrisk [Eric Blake]

Change type of arg from "long" to "int"

Various fcntl(2) commands require an integral 'arg'.

The man page said it must be "long" in all such cases.

However, for the cases covered by POSIX, there is an explicit requirement that these arguments be "int".

Update the man page to reflect. Probably, all of the

other "long" cases (not specified in POSIX) should

be "int", and this patch makes them so. Based on a

note from Eric Blake, relating to F_DUPFD_CLOEXEC.

gettimeofday.2

Michael Kerrisk

Reorganize content

The main change is to move the historical information about the 'tz_dsttime' to NOTES.

Michael Kerrisk [Felix]

Note that compiler issues warnings if 'tv' is NULL

mmap.2

Michael Kerrisk [Kevin O'Gorman]

Clarify that this system call should not be invoked directly

See https://bugzilla.kernel.org/show_bug.cgi?id=42892

Michael Kerrisk

Clarify NOTES discussion of mmap() versus mmap2()

poll.2

Michael Kerrisk [Michael Welsh Duggan]

Document negative value in 'fd' field

Michael Kerrisk

Document semantics of passing zero in 'events' field

ptrace.2

Denys Vlasenko

Various fixes

For some reason, the PTRACE_TRACEME paragraph talks about some general aspects of ptraced process behavior. It repeats the

"tracee stops on every signal" information even though that was

already explained just a few paragraphs before. Then it describes legacy SIGTRAP on `execve()`.

This patch deletes the first part, and moves the second part up, into the general `ptrace` description. It also adds "If `PTRACE_O_TRACEEXEC` option is not in effect" to the description of the legacy SIGTRAP on `execve()`.

The patch also amends the part which says "For requests other than `PTRACE_KILL`, the tracee must be stopped." - `PTRACE_ATTACH` also doesn't require that.

sigaction.2

Michael Kerrisk [Andreas Jaeger,]

Clarify that the use of `SI_SIGIO` is for Linux 2.2 only

See also http://sourceware.org/bugzilla/show_bug.cgi?id=6745

sigprocmask.2

Mike Frysinger

ERRORS: add `EFAULT`

times.2

Michael Kerrisk [Simone Piccardi]

ERRORS: Add `EFAULT`

div.3

Michael Kerrisk [Reuben Thomas]

CONFORMING TO: Add `C99`

fread.3

Regid Ichira

Clarify further that return value is number of items, not bytes

See also <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=665780>

getaddrinfo.3

Michael Kerrisk [Jak]

Correct type of `ai_addrlen` field

malloc.3

Michael Kerrisk

SEE ALSO: add `malloc_usable_size(3)`

SEE ALSO: Add `malloc_trim(3)`

mallopt.3

Michael Kerrisk

Fix text describing `M_PERTURB` and `free()`

SEE ALSO: Add `malloc_trim(3)`

memchr.3

Michael Kerrisk [Reuben Thomas]

Remove mention of terminating null in description of rawmemchr()

perror.3

Michael Kerrisk [Jesus Otero]

Note that use of 'sys_errlist' is deprecated

rcmd.3

Michael Kerrisk

glibc eventually added a declaration of iruserok() in version 2.12

sysconf.3

Michael Kerrisk [Ricardo Catalinas Jiménez]

Add mention of _SC_SYMLOOP_MAX

nologin.5

Michael Kerrisk [Tetsuo Handa]

nologin must not only exist, but **be readable** to be effective

nsswitch.conf.5

Mark R Bannister

Significant rewrites and improvements

This patch applies to nsswitch.conf.5 in man-pages-3.36.

My changes almost completely rewrite large sections of the man page. They are needed to add clarity, correct grammar, reduce confusion, and bring up-to-date with the latest glibc. I have checked the man page against the nss source code in glibc 2.14.90.

Historical notes are demoted to the footer.

The rewrite makes the man page much clearer to understand, more authoritative, and easier to read.

Michael Kerrisk

Light edits to Mark Bannister's changes

capabilities.7

Michael Kerrisk

Add prctl(PR_SET_MM) to CAP_SYS_RESOURCE

epoll.7

Michael Kerrisk

Some minor clarifications at start of DESCRIPTION

netlink.7

Jeff Mahoney [Petr Gajdos]

Note cases where nonprivileged users can use netlink multicast groups

See also https://bugzilla.novell.com/show_bug.cgi?id=754611

unix.7

Michael Kerrisk [Tetsuo Handa]

Add a detail on autobind feature

ld.so.8

Jonathan Nieder [Reuben Thomas]

Document effect of hwcaps on search path

Wording by Aurelien Jarno from Debian glibc's r4701 (2011-06-04).

Addresses <http://bugs.debian.org/622385>

==== Changes in man-pages-3.40 =====

Released: 2012-04-27, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

process_vm_readv.2

Mike Frysinger, Christopher Yeoh, Michael Kerrisk

New page for process_vm_readv(2) and process_vm_writew(2)

mcheck.3

Michael Kerrisk

New man page for mcheck(3) and related functions

Also describes mcheck_check_all(3), mcheck_pedantic(3),
and mprobe(3)

Newly documented interfaces in existing pages

rcmd.3

Michael Kerrisk

Document "_af" variants of these functions

Document rcmd_af(), rresvport_af(), iruserok_af(), ruserok_af().

Also some restructuring and other clarifications.

rexec.3

Michael Kerrisk

Document rexec_af()

New and changed links

iruserok_af.3

rcmd_af.3

rresvport_af.3

ruserok_af.3

Michael Kerrisk

New links to rcmd.3

rexec_af.3

Michael Kerrisk

New link to rexec.3

Changes to individual pages

clock_getres.2

Michael Kerrisk

Clarify difference between CLOCK_MONOTONIC and CLOCK_MONOTONIC_RAW
Note interactions of these two clocks with discontinuous
adjustments to the system time and NTP/adjtime(2).

fallocate.2

Michael Kerrisk [John Sullivan]

Fix description of ENOSYS and EOPNOTSUP errors
As reported in https://bugzilla.redhat.com/show_bug.cgi?id=680214

fchmodat.2

Michael Kerrisk [Mike Frylinger]

Improve discussion of difference between wrapper and underlying syscall

gettimeofday.2

Michael Kerrisk

gettimeofday() is affected by discontinuous jumps in the system time
Advise reader to use clock_gettime(2), if they need a
monotonically increasing time source.

Michael Kerrisk

SEE ALSO: Add clock_gettime(2)

prctl.2

Michael Kerrisk

Add PR_TASK_PERF_EVENTS_DISABLE and PR_TASK_PERF_EVENTS_ENABLE
Add some basic documentation of these operations, with a pointer to
tools/perf/design.txt for more information.

Michael Kerrisk [Marcel Holtmann]

Amend details of PR_SET_PDEATHSIG

ptrace.2

Michael Kerrisk [Mike Frylinger]

Note SPARC deviation with respect to get/set regs
SPARC reverses the use of 'addr' and 'data' for
PTRACE_GETREGS, PTRACE_GETFPREGS, PTRACE_SETREGS,
and PTRACE_SETFPREGS.

send.2

Stefan Puiu

Document EACCES error case for UDP

sigaction.2

Michael Kerrisk

Remove mention of raise(3) for SI_USER
For a long time now, glibc's raise(3) didn't yield SI_USER
for the signal receiver, so remove mention of raise(3)

here. The user can deduce the details, if needed, by looking at the recently updated raise(3) page.

aio_cancel.3

Michael Kerrisk [Jon Grant]

Rewrite RETURN VALUE section to be clearer

aio_init.3

Michael Kerrisk [Jon Grant]

Remove extraneous "POSIX" from NAME section

btree.3

dbopen.3

hash.3

mpool.3

recno.3

Michael Kerrisk [Brian M. Carlson]

Note that glibc no longer provides these interfaces

glibc stopped providing these interfaces with v2.2.

Nowadays, the user that finds these pages probably wants the libdb API, so note this in the page.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=337581>

fopen.3

Michael Kerrisk

BUGS: Note limitation on number of flag characters parsed in 'mode'

Michael Kerrisk

Note that 'c' and 'e' flags are ignored for fdopen()

Determined from reading libio/iofdopen.c.

Michael Kerrisk

Document ",ccs=string" feature of 'mode' for fopen()/freopen()

getgrnam.3

Michael Kerrisk [Ulrich Drepper]

Fix discussion of _SC_GETGR_R_SIZE_MAX

The value is not meant to be a maximum (as was specified in SUSv3) but an initial guess at the required size (as specified in SUSv4).

getpwnam.3

Michael Kerrisk [Ulrich Drepper]

Fix discussion of _SC_GETPW_R_SIZE_MAX

The value is not meant to be a maximum (as was specified in SUSv3) but an initial guess at the required size (as specified in SUSv4).

malloc.3

mallopt.3

mtrace.3

Michael Kerrisk

SEE ALSO: add mcheck(3)

memchr.3

Michael Kerrisk

Clarify description, omitting mention of "strings" and "characters"

The existing text slipped into talking about characters and strings, which could mislead readers into thing that, for example, searches for the byte '\0' are treated specially.

Therefore, rewrite in terms of "bytes" and "memory areas".

At the same time, make a few source file clean-ups.

mkstemp.3

Michael Kerrisk

Add "mkstemp" and "mkostemp" to NAME line

posix_openpt.3

Michael Kerrisk [Vadim Mikhailov]

Add some details on use of the slave pathname

An explicit pointer to ptsname(3) is useful, as is a note of the fact that the slave device pathname exists only as long as the master device is held open.

raise.3

Michael Kerrisk

Add some notes on underlying system call that is used

rcmd.3

Michael Kerrisk

Add some details of the rresvport() 'port' argument

resolver.3

Petr Baudis

Note that many options are documented in resolv.conf(5)

scandir.3

Michael Kerrisk [Daniel J Blueman]

Improve EXAMPLE source code: s/0/NULL/ in scandir() call

strchr.3

James Hunt

Explain behavior when searching for '\0'

strerror.3

Eric Blake [Stefan Puiu]

Improve strerror_r() description

POSIX requires that perror() not modify the static storage returned by strerror(). POSIX 2008 and C99 both require that strerror() never return NULL (a strerror() that always returns "" for all inputs is valid for C99, but not for POSIX).

http://sourceware.org/bugzilla/show_bug.cgi?id=12204 documents glibc's change to come into compliance with POSIX regarding strerror_r() return value. The GNU strerror_r() use of 'buf' was confusing - I ended up writing a test program that proves that 'buf' is unused for valid 'errno', but contains truncated "unknown message" for out-of-range 'errno'.

See also <http://austingroupbugs.net/view.php?id=382>

Bernhard Walle

Correct description of error return for XSI strerror_r()

Michael Kerrisk [Eric Blake]

Note how to use 'errno' to detect errors when calling strerror()

Michael Kerrisk [Jon Grant]

Add an example of the kind of string returned by strerror()

resolv.conf.5

Petr Baudis

Document "single-request" option

inotify.7

Michael Kerrisk

Note buffer size that guarantees being able to read at least one event

James Hunt

Correct description of size of inotify_event structure

iso_8859-1.7

Eugen Dedu

Add "-" for SOFT HYPHEN

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=156154>

netdevice.7

Brian F. G. Bidulock

Document some SIOC configuration ioctls

This patch adds common but missing SIOC configuration ioctls to the netdevice.7 manual pages that are not documented anywhere else. SIOCSIFPFLAGS and SIOCGIFPFLAGS are linux-specific. Flag values come from Linux 2.6.25 kernel headers for sockios. The others are standard BSD ioctls that have always been implemented by Linux and were verified from inspecting netdevice.c kernel code.

socket.7

Michael Kerrisk [Alexey Toptygin]
Correct description of SO_BROADCAST

tcp.7
lepton
Correct description for TCP_MAXSEG on modern kernel

===== Changes in man-pages-3.41 =====

Released: 2012-05-11, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

get_robust_list.2

Ivana Varekova [Michael Kerrisk]

New page documenting get_robust_list(2) and set_robust_list(2)

mallinfo.3

Michael Kerrisk [KOSAKI Motohiro, Paul Pluzhnikov]

New page for mallinfo(3)

malloc_info.3

Michael Kerrisk [Jakub Jelinek]

New page for malloc_info(3)

malloc_stats.3

Michael Kerrisk [KOSAKI Motohiro]

New man page for malloc_stats(3)

Newly documented interfaces in existing pages

madvise.2

Jason Baron

Document MADV_DONTDUMP and MADV_DODUMP

New and changed links

set_robust_list.2

Michael Kerrisk

New link to new get_robust_list.2 page

LIST_ENTRY.3

LIST_HEAD.3

LIST_INIT.3

LIST_INSERT_AFTER.3
LIST_INSERT_HEAD.3
LIST_REMOVE.3
TAILQ_ENTRY.3
TAILQ_HEAD.3
TAILQ_INIT.3
TAILQ_INSERT_AFTER.3
TAILQ_INSERT_HEAD.3
TAILQ_INSERT_TAIL.3
TAILQ_REMOVE.3
CIRCLEQ_ENTRY.3
CIRCLEQ_HEAD.3
CIRCLEQ_INIT.3
CIRCLEQ_INSERT_AFTER.3
CIRCLEQ_INSERT_BEFORE.3
CIRCLEQ_INSERT_HEAD.3
CIRCLEQ_INSERT_TAIL.3
CIRCLEQ_REMOVE.3

Michael Kerrisk

New link to queue.3

The queue(3) page documents these macros, so it makes sense to have links for the names.

DES_FAILED.3

Michael Kerrisk

New link to des_crypt.3

The des_crypt(3) page documents this macro, so it makes sense to have a link for the name.

qsort_r.3

Michael Kerrisk

New link to qsort.3

Overlooked to add this link in 3.38, when documentation of qsort_r() was added to the qsort.3 page.

Global changes

faccessat.2
fchmodat.2
fchownat.2
fstatat.2
futimesat.2
inotify_init.2
linkat.2
mkdirat.2
mknodat.2

openat.2
readlinkat.2
renameat.2
setns.2
splice.2
symlinkat.2
sync.2
tee.2
unlinkat.2
vmsplice.2

Michael Kerrisk [Lauri Kasanen]

Global fix: note glibc version that added library support

confstr.3
strcasecmp.3
strcat.3
strcmp.3
strcpy.3
strdup.3
strftime.3
strlen.3
strnlen.3
strpbrk.3
strspn.3
strtok.3
strxfrm.3

Michael Kerrisk [Andries E. Brouwer]

Clarify that these functions operate on bytes, not (wide) characters

Change 'character(s)' to 'byte(s)' to make clear that these functions operate on bytes, not wide / UTF8 characters.

(POSIX uses 'byte(s)' similarly, to make this point.)

icmp.7
ipv6.7
packet.7
raw.7
rtnetlink.7
unix.7
x25.7

Michael Kerrisk

Remove names of constants from NAME line

Some of the sockets/network protocol pages included names of the corresponding address family constants in the NAME line, but this wasn't done consistently across all pages, and probably it adds little value in those pages that did do this. So, remove these constants from those pages that have them in the NAME section.

Changes to individual pages

clock_getres.2

Michael Kerrisk [Josh Triplett]

Expand description of CLOCK_REALTIME

Make it clear that this clock may be discontinuous, and is affected by incremental NTP and clock_adjtime(2) adjustments.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=540872>

epoll_wait.2

Michael Kerrisk

Clarify that 'timeout' is a *minimum* interval

Make it clear that 'timeout' is a minimum interval; the actual interval will be rounded up to the system clock granularity, and may overrun because of kernel scheduling delays.

execve.2

Michael Kerrisk

Rewording to deemphasize libc5 details

fork.2

Mike Frysinger

ERRORS: add ENOSYS

Can occur on, for example, non-MMU hardware.

getcpu.2

Mike Frysinger

Add RETURN VALUE and ERRORS sections

Michael Kerrisk

Refer reader to NOTES for more info about 'tcache'

Michael Kerrisk

DESCRIPTION: reword a sentence to be clearer

io_cancel.2

io_destroy.2

io_getevents.2

io_setup.2

io_submit.2

Michael Kerrisk

Rewrite to focus on system call API

Rewrite to focus on the system call interface, adding some notes on the libaio wrapper differences.

See the following mail:

2012-05-07 "aio manuals", linux-man@vger

<http://thread.gmane.org/gmane.linux.man/1935/focus=2910>

Other minor rewrites.

mount.2

Michael Kerrisk

Comment out an old Linux libc detail

open.2

Nick Piggin [KOSAKI Motohiro, Jan Kara, Hugh Dickins]

Describe race of direct I/O and fork()

Rework 04cd7f64, which didn't capture the details correctly.

See the April/May 2012 linux-man@ mail thread "[PATCH]

Describe race of direct read and fork for unaligned buffers"

<http://thread.gmane.org/gmane.linux.kernel.mm/77571>

poll.2

Michael Kerrisk

Clarify that 'timeout' is a **minimum** interval

Make it clear that 'timeout' is a minimum interval; the actual interval will be rounded up to the system clock granularity, and may overrun because of kernel scheduling delays.

Michael Kerrisk

Clarify discussion of wrapper function emulation

Clarify that glibc (as well as old libc) provides emulation using select(2) on older kernels that don't have a poll() system call.

Michael Kerrisk

Make the meaning of a zero timeout explicit

Clarify that timeout==0 causes an immediate return, even if no file descriptors are ready.

pread.2

Michael Kerrisk [Kasper Dupont]

BUGS: Note O_APPEND + pwrite() does the wrong thing

See https://bugzilla.kernel.org/show_bug.cgi?id=43178

recvmsg.2

Michael Kerrisk

Clarify that 'timeout' is a **minimum** interval

Make it clear that 'timeout' interval will be rounded up to the system clock granularity, and may overrun because of kernel scheduling delays.

select.2

Michael Kerrisk

Clarify that 'timeout' is a **minimum** interval

Make it clear that 'timeout' is a minimum interval; the actual interval will be rounded up to the system clock granularity,

and may overrun because of kernel scheduling delays.

Michael Kerrisk

Expand description of the self-pipe trick

Michael Kerrisk

Add further details on pselect6() system call that underlies pselect()

semop.2

Michael Kerrisk

Clarify that 'timeout' of semtimedop() is a **minimum** interval

Make it clear that 'timeout' interval will be rounded up to the system clock granularity, and may overrun because of kernel scheduling delays.

signal.2

Michael Kerrisk

Note that 'sig_t' requires _BSD_SOURCE

Also remove some old Linux libc details

sigwaitinfo.2

Michael Kerrisk

Clarify that 'timeout' of sigtimedwait() is a **minimum** interval

Make it clear that 'timeout' is a minimum interval; the actual interval will be rounded up to the system clock granularity, and may overrun because of kernel scheduling delays.

stat.2

Bjarni Ingi Gislason

Formatting fixes

From "groff -ww" (or "man --warnings=w ..."):

warning: around line 442: table wider than line width

GNU man uses line length of 78.

Use text blocks. Two spaces between sentences or better: start each sentence in a new line.

syscalls.2

Bjarni Ingi Gislason

Formatting fixes

From "groff -ww ..." (or "man --warnings=w ..."):

warning: around line 157: table wider than line width

Have to use text blocks. Move some text to its correct column. Split text to two columns to avoid hyphenation.

sysinfo.2

Michael Kerrisk

Remove reference to obsolete libc5

syslog.2

Michael Kerrisk

Remove some details about obsolete Linux libc

aio_cancel.3

aio_error.3

aio_fsync.3

aio_read.3

aio_return.3

aio_suspend.3

aio_write.3

Michael Kerrisk

ERRORS: Add/update ENOSYS error

aio_cancel.3

Michael Kerrisk

Clarify what happens when a request isn't successfully canceled

Michael Kerrisk

Add pointers to aio(7) and sigevent(7)

dbopen.3

Michael Kerrisk

SYNOPSIS: Add header file <fcntl.h>

Upstreamed from Debian, and consistent with FreeBSD

dbopen(3) man page.

fmemopen.3

Michael Kerrisk

Note details of POSIX.1-2008 specification of 'b' in 'mode'

Michael Kerrisk [Rich Felker]

BUGS: fmemopen() doesn't correctly set file position in some cases

If 'mode' is append, but 'size' does not cover a null byte in 'buf', then fmemopen() incorrectly sets the initial file position to -1, rather than the next byte after the end of the buffer.

See http://sourceware.org/bugzilla/show_bug.cgi?id=13151

Michael Kerrisk

BUGS: fmemopen() incorrectly handles size==0 case

If size is zero, fmemopen() fails, This is surprising behavior, and not specified in POSIX.1-2008.

See http://sourceware.org/bugzilla/show_bug.cgi?id=11216

Reported-by; Alex Shinn <alexshinn@gmail.com>

Michael Kerrisk

BUGS: Note silent ABI change for fmemopen() in glibc 2.9

Michael Kerrisk [Rich Felker]

BUGS: Append mode does not force writes to append

Append mode correctly sets the initial offset but does not force subsequent writes to append at end of stream.

See http://sourceware.org/bugzilla/show_bug.cgi?id=13152

Michael Kerrisk [Eric Blake]

BUGS: Note inconsistent treatment of 'b' in 'mode'

fopen() permits, for example, both "w+b" and "wb+", but only the latter is meaningful to fmemopen().

See http://sourceware.org/bugzilla/show_bug.cgi?id=12836

fopencookie.3

Michael Kerrisk [Petr Baudis]

Correct description of return for user-supplied 'write' function

See http://sourceware.org/bugzilla/show_bug.cgi?id=2074

getaddrinfo.3

Jean-Michel Vougrère

Note that AI_ADDRCONFIG is not affected by loopback addresses

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=660479>

iconv.3

Michael Kerrisk

Upstream useful NOTE from Debian

Warn the reader that the pointer arguments can't be interpreted as C style strings. Also, note possible alignment requirements for the referenced bytes sequences,

Michael Kerrisk

Write a better paragraph introducing iconv() and its arguments

isgreater.3

Michael Kerrisk [Vincent Lefevre]

Clarify that the arguments to these macros must be real-floating

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=609033>

lio_listio.3

Michael Kerrisk

Clarify that async notification occurs when *all* I/Os complete

makedev.3

Michael Kerrisk

SYNOPSIS: Correct return types of major() and minor()

See https://bugzilla.redhat.com/show_bug.cgi?id=754188

Reported-by; Zdenek Kabelac <zkabelac@redhat.com>

malloc.3

Michael Kerrisk

SEE ALSO: Add malloc_info(3)

malloc_get_state.3

Michael Kerrisk

Fix wordos in function names in NAME line

mallopt.3

Michael Kerrisk

Fix example program

The example code was a version that was not consistent with the shell output shown on the page.

Reported-by: Simon Paillard <spillard@debian.org>

Michael Kerrisk

Restore accidentally omitted line in shell session

Michael Kerrisk

SEE ALSO: Add malloc_stats(3)

mmap64.3

Michael Kerrisk

Change target of link to mmap.2 (was mmap2.2)

Upstreamed from Red Hat / Fedora

realpath.3

Michael Kerrisk [Casper Dik]

Remove note about Solaris possibly returning a relative path

syslog.3

Michael Kerrisk [Ralph Corderoy]

Document behavior when 'ident' argument to openlog() is NULL

See <https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/382096>

Michael Kerrisk

Update CONFORMING TO for POSIX.1-2008

POSIX.1-2008 doesn't change any details, but make that more explicit.

undocumented.3

Michael Kerrisk

Remove some functions that have been documented

sd.4

Michael Kerrisk

Remove reference to nonexistent scsi(4) page

Upstreamed from RedHat / Fedora

sk98lin.4

Michael Kerrisk [Stephen Hemminger]

Note that this driver was removed in 2.6.28

See <https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/528020>

passwd.5

Michael Kerrisk

Upstream pieces from Red Hat/Fedora

Note mention of empty password field.

Add description of "*NP*" in password field.

Michael Kerrisk

Various minor fixes and improvements

proc.5

Michael Kerrisk

Note that CAP_SYS_ADMIN processes can override file-max

Upstreamed from red Hat / Fedora

Michael Kerrisk

Document /proc/[pid]/cgroup

Upstreamed from Red Hat / Fedora

resolv.conf.5

Michael Kerrisk

Take a Debian improvement into upstream

tzfile.5

Michael Kerrisk

Mention timezone directories in DESCRIPTION

Note that timezone files are usually in /usr/lib/zoneinfo
or /usr/share/zoneinfo.

Michael Kerrisk

Drop SYNOPSIS

The SYNOPSIS doesn't correspond to a user-visible file.

Michael Kerrisk

SEE ALSO: Add pointer to glibc source file timezone/tzfile.h

Michael Kerrisk

SEE ALSO: add tzset(3) and tzselect(8)

ascii.7

Bjarni Ingi Gislason

Indent for "troff" makes table too wide

Fix following from "groff -t -ww ...":

warning: around line 53: table wider than line width

Extra indent for "troff" makes the table look misplaced
(default "ps" output).

cp1251.7

Bjarni Ingi Gislason

table too wide

From "nroff -ww -t ...":

warning: around line 44: table wider than line width

Columns are made narrower (column gutter decreased).

ipv6.7

Stefan Puiu

Add ENODEV error for bind() to link-local IPv6 address

signal.7

Michael Kerrisk [Simone Piccardi]

Clarify that SIGLOST is unused

Michael Kerrisk

Comment out crufty BUGS text on SIGLOST

It must be a very long time since the statement there about SIGLOST was true. (The text seems to date back to 1996.)

Michael Kerrisk

Update architectures for tables of signal numbers

utf-8.7

Brian M. Carlson

Two clarifications

This patch clarifies that 0xc0 and 0xc1 are not valid in any UTF-8 encoding[0], and it also references RFC 3629 instead of RFC 2279.

[0] In order to have 0xc0, you'd have to have a two-byte encoding with all the data bits zero in the first byte (and thus only six bits of data), which would be an ASCII character encoded in the non-shortest form. Similarly with 0xc1.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=538641>

ldconfig.8

nscd.8

Michael Kerrisk

Remove path prefix from NAME line

Command names shown in NAME are normally just the basename, not the full pathname of the command.

==== Changes in man-pages-3.42 =====

Released: 2012-08-14, Konolfingen

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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<socketpair@gmail.com>

Apologies if I missed anyone!

Global changes

Various pages

Sami Kerola

Global fix: use UR macro where applicable

The syntax .UR http://example.com paired with .UE will create

links which one can interact, if the pager allows that. One way to see the effect is ask the man(1) command to use browser display, e.g.:

```
man -H man7/uri.7
```

("\" is optional groff syntax to permit hyphenless line breaks.)

Changes to individual pages

ldd.1

Michael Kerrisk

Add security note on untrusted executables

See also <http://www.catonmat.net/blog/ldd-arbitrary-code-execution/>
and

<http://tldp.org/HOWTO/Program-Library-HOWTO/shared-libraries.html>

clone.2

Michael Kerrisk

Rewrite discussion of sys_clone

futex.2

Consolidate error descriptions to ERRORS

Michael Kerrisk

Various wording fix-ups

Michael Kerrisk

Fix description of EINVAL error

The current text seems incorrect. Replace with a more general description.

getdents.2

select_tut.2

atof.3

atoi.3

pthread_create.3

pthread_sigmask.3

rtime.3

setbuf.3

tsearch.3

netlink.7

Michael Kerrisk [Jan Engelhardt]

Remove unneeded casts

get_robust_list.2

get_thread_area.2

getcpu.2
getdents.2
gettid.2
io_cancel.2
io_destroy.2
io_getevents.2
io_setup.2
io_submit.2
ioprio_set.2
kexec_load.2
llseek.2
modify_ldt.2
mq_getsetattr.2
pivot_root.2
readdir.2
rt_sigqueueinfo.2
set_thread_area.2
sgetmask.2
spu_create.2
spu_run.2
subpage_prot.2
sysctl.2
tkill.2

Michael Kerrisk

Add note to SYNOPSIS that there is no glibc wrapper for system call

Reduce the chance that the reader may be misled into thinking that there is a wrapper function for this system call by noting explicitly in the SYNOPSIS that there is no glibc wrapper and pointing the reader to NOTES for further details.

ioprio_set.2

Colin McCabe

Clarify the multithreaded behavior of ioprio_set(2)

Michael Kerrisk [, Kalle Olavi Niemitalo]

Document who==0 for IOPRIO_WHO_PROCESS and IOPRIO_WHO_PGRP

For IOPRIO_WHO_PROCESS, who==0 means operate on the caller.

For IOPRIO_WHO_PGRP, who==0 means operate on the caller's process group.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=652443>

migrate_pages.2

Michael Kerrisk [Christoph Lameter, JoonSoo Kim]

Fix description of return value

mount.2

Michael Kerrisk

For MS_REMOUNT, source is ignored

mprotect.2

Michael Kerrisk [Rasmus Villemoes]

'addr' argument is not const

As reported by Rasmus:

Both my system's man-pages (3.22) and the latest online (3.41) show:

```
int mprotect(const void *addr, size_t len, int prot);
```

as the prototype for mprotect(2). However, POSIX [1] and the actual sys/mman.h (on all the systems I checked) do not have the const qualifier on the first argument.

msgctl.2

semctl.2

shmctl.2

svipc.7

Michael Kerrisk

Don't mention that ipc_perm is defined in <sys/ipc.h>

There's no need to mention that the 'ipc_perm' structure is defined in <sys/ipc.h>. That's an implementation detail, and furthermore <sys/ipc.h> is itself included by the other System V IPC header files. The current text might lead the reader to conclude that they must include <sys/ipc.h>, which is not the case (it is required neither on Linux, nor by the standards).

msgctl.2

msgget.2

msgop.2

semctl.2

semget.2

semop.2

shmctl.2

shmget.2

Michael Kerrisk

NOTES: <sys/types.h> and <sys/ipc.h> aren't strictly needed

Add text to NOTES to say that the <sys/types.h> and <sys/ipc.h> header files aren't required by Linux or the standards, but may be needed for portability to old systems.

ptrace.2

Denys Vlasenko

Explain WNOHANG behavior and EINTR bug

I didn't like the "SIGKILL operates similarly, with exceptions" phrase (if it's different, then it's not "similar", right?),

and now I got around to changing it. Now it says simply:
"SIGKILL does not generate signal-delivery-stop and therefore
the tracer can't suppress it."

Replaced "why WNOHANG is not reliable" example with a more
realistic one (the one which actually inspired to add this
information to man page in the first place): we got
ESRCH - process is gone! - but waitpid(WNOHANG) can still
confusingly return 0 "no processes to wait for".

Replaced "This means that unneeded trailing arguments may
be omitted" part with a much better recommendation
to never do that and to supply zero arguments instead.
(The part about "undocumentedness" of gcc behavior was bogus,
btw - deleted).

Expanded BUGS section with the explanation and an example
of visible strace behavior on the buggy syscalls which
exit with EINTR on ptrace attach. I hope this will lead
to people submitting better bug reports to lkml about
such syscalls.

seteuid.2

Michael Kerrisk

Note glibc version where seteuid() implementation changed

In glibc 2.2/2.3, seteuid() switched from setregid() to setresgid().

set_tid_address.2

Michael Kerrisk

Rename 'ctid' argument for consistency with clone(2) page

Michael Kerrisk

Some rewordings and minor clarifications

sigwaitinfo.2

Michael Kerrisk [Daniel Zingaro]

Some wording clarifications

Mainly rewording things like "is delivered" to "becomes pending",
which is more accurate terminology.

syscall.2

Michael Kerrisk

Add some more details to the description of syscall(2)

And add another example of using syscall() to the program example.

syscalls.2

Michael Kerrisk

Add kcmp(2)

Michael Kerrisk

Move discussion of `set_zone_reclaim(2)` out of main table
This system call was never visible to user space, so it makes sense to move it out of the main table of system calls into the notes below the table.

getifaddrs.3

Michael Kerrisk [Adrian Dabrowski]

Note that `ifa_addr` and `ifa_netmask` can be NULL

readdir.3

Michael Kerrisk [Jan Engelhardt]

Handle -1 error from `pathconf()` in example code snippet

Improve the example demonstrating allocation of a buffer for `readdir_r()` to handle -1 error return from `pathconf()`.

Otherwise, naive readers may think that `pathconf()` return value can be used without checking.

realpath.3

Shawn Landden

Use past tense with ancient history (`libc4`, `libc5`)

regex.3

Michael Kerrisk

Correct SEE ALSO reference to glibc manual "regex" section

rtime.3

Michael Kerrisk [Jan Engelhardt]

Fix broken pointer cast in example code

sem_close.3

sem_destroy.3

sem_getvalue.3

sem_init.3

sem_open.3

sem_post.3

sem_unlink.3

sem_wait.3

sem_overview.7

Michael Kerrisk

Note that "cc -pthread" is required; "-lrt" no longer works

See <https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/874418>

sigwait.3

Michael Kerrisk

Reword "is delivered" to "becomes pending"

strcat.3

Michael Kerrisk

Add some text to emphasize the dangers of buffer overruns

Michael Kerrisk

NOTES: Add discussion of `strlcat()`

`strcpy.3`

Michael Kerrisk

Note that info is lost when `strncpy()` doesn't null terminate

Michael Kerrisk

Add some text to emphasize possibility of buffer runs with `strcpy()`

Michael Kerrisk

NOTES: Add a discussion of `strncpy()`

Inspired by <https://lwn.net/Articles/506530/>

Michael Kerrisk

Fix description of the null-byte padding performed by `strncpy()`

`tsearch.3`

Michael Kerrisk

NOTES: remove redundant discussion of unorthodox use of term "postorder"

This point is already covered at greater length in the main text of the page (See the piece "More commonly, ...").

Michael Kerrisk

Clarify use for first argument to the `twalk()` 'action' function

There's a number of details in POSIX that are omitted in the current version of this page.

Michael Kerrisk

Some wording fixes

`core.5`

Michael Kerrisk

Note effect of `madvise(2)` `MADV_DONTDUMP` flag

`capabilities.7`

Michael Kerrisk

Document `CAP_BLOCK_SUSPEND`

`glob.7`

Bjarni Ingi Gislason

Change 8 bit characters to 7 bit representation

Fixes rendering errors for accented 'a' characters.

Michael Kerrisk [Aaron Peschel]

Update `bash(1)` command used to obtain classical globbing behavior

The man page formerly noted the `bash(1)` v1 command to do this.

`iso_8859-1.7`

Bjarni Ingi Gislason

Explanation of `SOFT HYPHEN` and the code for it

<groff: iso_8859-2.7>:89: warning: can't find special character `shc'

This is the only "iso_8859-*.7" file that has this (now) undefined character. The code in column four in "iso_8859-1.7" is "0x2D" ("HYPHEN, MINUS SIGN" or "HYPHEN-MINUS") instead of "0xAD". See Debian bug 156154 (or package "manpages").

There should be an explanation for this graphic character and the code should be 0xAD in iso_8859-1.7 (as in all others), even though "[gn]roff" does not display a "HYPHEN" in that position of the table.

The line with "SOFT HYPHEN" gets a footnote and a short explanation.

mdoc.7

Bjarni Ingi Gislason

Fixing a warning and a table

Fis warning from "groff -ww ..." (or "man --warnings=w ..."):

```
<groff: mdoc.7>:294: warning:
tab character in unquoted macro argument
```

In one table the distance between columns is too small in the "ps" output. (Bug in the groff "doc.tmac" macro?)

mdoc.samples.7

Bjarni Ingi Gislason

Fix warnings from [ng]roff, corrections

From "man -ww ..." (groff -ww ...):

```
<standard input>:541: warning:
tab character in unquoted macro argument
[+3 similar warnings]
<standard input>:813: warning: macro `Pu' not defined
Usage: .Rv -std in sections 2 and 3 only (#1669)
mdoc warning: A .Bl directive has no matching .El (#1821)
```

String "Pu" defined as a row of punctuation characters.

".Bl" and ".El" fixed.

Some arguments, that start with a period or are the name of a macro, protected with "&".

Variable name for macro ".Rv" corrected.

netdevice.7

Bjarni Ingi Gislason

Line in table too long

Fix warning from "man ..." ("nroff -ww ..."):

```
nroff: netdevice.7: warning: around line 98:
```

table wider than line width

Fix: No right adjustment in text blocks in tables.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=673873>

netlink.7

Bjarni Ingi Gislason

Line in table is too long

Fix warning from "man ..." ("nroff -ww ..."):

```
nroff: netlink.7: warning: around line 195:
table wider than line width
```

Horizontal line incorporated into table.

No right adjustment of text blocks in tables.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=673875>

Simon Paillard [Herbert Xu]

Change description of "*_pid" fields to "Port ID"

As reported by Herbert Xu, these should not be considered as PIDs.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=383296>

rtnetlink.7

Bjarni Ingi Gislason

Line in table too long

Fix warning from "man ..." ("nroff -ww ..."):

```
nroff: rtnetlink.7: warning: around line 415:
table wider than line width
```

Column gutter reduced to fit line length.

Right adjustment in text blocks removed in tables.

Some header made centered in tables.

One table put on same page.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=674051>

socket.7

Martin H

Document SO_MARK socket option

Commit 4a19ec5800fc3bb64e2d87c4d9fdd9e636086fe0 in Jan 2008 added the new SO_MARK socket option.

This patch is based on text from the commit message.

See https://bugzilla.kernel.org/show_bug.cgi?id=16461.

svipc.7

Michael Kerrisk

SYNOPSIS: Remove include of <sys/types.h> and <sys/ipc.h>
Including <sys/types.h> and <sys/ipc.h> isn't needed on Linux
and isn't really relevant for the explanation on this page.

===== Changes in man-pages-3.43 =====

Released: 2012-10-05, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

getenv.3

Michael Kerrisk [Florian Weimer, Andreas Schwab]
Document secure_getenv(3)

New and changed links

phys.2

Michael Kerrisk

New link to unimplemented.2

secure_getenv.3

Michael Kerrisk

New link to getenv.3

Global changes

Various pages

Michael Kerrisk

Global fix: s/-/\-/ when real hyphen is required (e.g., in code)

Various pages

David Prévot [Michael Kerrisk]

Global fix: Various consistency fixes for SEE ALSO

Various pages

Michael Kerrisk

Global fix: use "Linux kernel source" consistently

Rather than "kernel source".

Various pages

Michael Kerrisk

Global fix: disable justification and hyphenation in SEE ALSO

For a better visual result, disable justification and hyphenation
in SEE ALSO where page names are long.

syscalls.2

uname.2

boot.7

Michael Kerrisk

Global fix: s/OS/operating system/

Changes to individual pages

epoll_wait.2

Michael Kerrisk [Fredrik Arnerup]

Describe timeout limitation in kernels < 2.6.37

As reported by Fredrik (and as far as I can tell the problem

went back to 2.6.0):

The timeout argument has an upper limit. Any values above that limit are treated the same as -1, i.e. to wait indefinitely.

The limit is given by:

```
#define EP_MAX_MSTIMEO min(1000ULL * MAX_SCHEDULE_TIMEOUT / HZ, \
(LONG_MAX - 999ULL) / HZ)
```

That is, the limit depends on the size of a long and the timer frequency. Assuming the long is never smaller than 32 bits and HZ never larger than 1000, the worst case is 35 minutes. I think this should be mentioned under "BUGS".

Although this is likely to be fixed in the future (<http://lkml.org/lkml/2010/8/8/144>), the problem exists in at least 2.6.14 - 2.6.35. I don't know if select(2) and poll(2) are affected.

https://bugzilla.kernel.org/show_bug.cgi?id=20762

Michael Kerrisk

Add pointer to select(2) for discussion of close in another thread

getitimer.2

Michael Kerrisk [Trevor Woerner]

Note Linux's odd handling of the new_value==NULL case

Michael Kerrisk [Trevor Woerner]

Fix types used to declare fields in timeval struct

keyctl.2

David Prévot

Reorder SEE ALSO, without .br

poll.2

Michael Kerrisk

Add pointer to select(2) for discussion of close in another thread

select.2

Michael Kerrisk [Stephane Fillod]

Note behavior if monitored file descriptor is closed in another thread

Executive summary: a sane application can't rely on any particular behavior if another thread closes a file descriptor being monitored by select().

See https://bugzilla.kernel.org/show_bug.cgi?id=40852

Michael Kerrisk

Clarify equivalent pselect() code in terms of threads

s/sigprocmask/pthread_sigmask/

semop.2

Michael Kerrisk

Recast discussion of blocking behavior in terms of threads
semop() blocks the calling thread, not the process.

Michael Kerrisk

SEE ALSO: Add clone(2)

Give reader a clue about CLONE_SYSVSEM.

shutdown.2

Michael Kerrisk [Eric Dumazet]

Document EINVAL error (and associated bug)

Eric Dumazet noted that EINVAL was not documented. Some further digging shows that it's also not diagnosed consistently.

See https://bugzilla.kernel.org/show_bug.cgi?id=47111.

sigaction.2

Michael Kerrisk

Tweak SA_RESETHAND description

timer_settime.2

Michael Kerrisk

Small rewording around discussion of pointer arguments

wait4.2

Adrian Bunk

Note that these functions are nonstandard and recommend alternatives

Some edits to Adrian's patch by mtk.

Michael Kerrisk

CONFORMING TO: Note SUS details for wait3()

gnu_get_libc_version.3

Michael Kerrisk

Remove unneeded "#define _GNU_SOURCE" from SYNOPSIS

pthread_kill.3

pthread_sigqueue.3

Michael Kerrisk

Remove wording "another"

Writing "another thread" in these pages implies that these functions can't be used to send a signal to the calling thread itself, which is of course untrue.

sigvec.3

Michael Kerrisk

Add "int" arg to sv_handler definition in sigvec structure

Michael Kerrisk

Fix small error in discussion of blocking of signals

The signal that causes the handler to be invoked is blocked, but saying "by default" implies that this can be changed via the API. It cannot. (One needs sigaction(2) for that.)

syslog.3

Simon Josefsson

Remove (apparently bogus) text claiming LOG_AUTH is deprecated
LOG_AUTH is in POSIX, and widely available. There seems to be no basis to the claim it is deprecated.

Quoting Simon:

I cannot find any other source that claim LOG_AUTH is deprecated in any way. LOG_AUTH is distinct from LOG_AUTHPRIV. The GNU C Library manual only documents LOG_AUTH. The header files contains both without any comment. Common systems like Debian appear to refer to both auth and authpriv facilities in syslog configurations. Popular daemons appear to use both facilities. Both facilities are discussed in several RFCs.

See https://bugzilla.kernel.org/show_bug.cgi?id=46091

ttynam.3

Michael Kerrisk

SEE ALSO: Add ctermid(3)

proc.5

Michael Kerrisk

Clarify header file related to 'flags' field of /proc/PID/stat

Michael Kerrisk [Frédéric Brière]

Update description of 'starttime' field of /proc/PID/stat

The unit of measurement changed from jiffies to clock ticks in Linux 2.6.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=675891>

Michael Kerrisk

Document /proc/sys/kernel/kptr_restrict

Michael Kerrisk [Kees Cook]

Document /proc/sys/fs/protected_symlinks

Based on text in Documentation/sysctl/fs.txt by Kees Cook

Michael Kerrisk [Kees Cook]

Document /proc/sys/fs/protected_hardlinks

Based on text in Documentation/sysctl/fs.txt by Kees Cook

capabilities.7

Michael Kerrisk

Document interaction of CAP_SYSLOG and /proc/sys/kernel/kptr_restrict

ip.7

Michael Kerrisk

SEE ALSO: Add ipv6(7)

SEE ALSO: Add icmp(7)

man-pages.7

Michael Kerrisk

Add some advice about disabling hyphenation in SEE ALSO

ld.so.8

Michael Kerrisk

Describe interpretation of slashes in dependency strings

Michael Kerrisk

Repeat note that LD_LIBRARY_PATH is ignored in privileged programs

This point is already noted when discussing search order for libraries, but it's worth repeating under the specific discussion of LD_LIBRARY_PATH further down the page.

Michael Kerrisk

Add some details for LD_PRELOAD

Note that LD_PRELOAD list separator can be space or colon

===== Changes in man-pages-3.44 =====

Released: 2012-11-07, Barcelona

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Simon Paillard <spaillard@debian.org>

Thomas Habets <thomas@habets.se>

Apologies if I missed anyone!

New and rewritten pages

delete_module.2

Michael Kerrisk

Rewrite to Linux 2.6+ reality

Michael Kerrisk

Change license and copyright

There is now nothing left of the original FSF-copyrighted page. So, change the copyright and license.

Michael Kerrisk [Lucas De Marchi, Rusty Russell]

Substantial reorganization after comments from Rusty Russell

Rusty notes that O_NONBLOCK is almost always used in practice. Therefore, it would be better to reorganize the page to consider that "the default".

init_module.2

Michael Kerrisk

Rewrite to Linux 2.6+ reality

Michael Kerrisk

Change copyright and license

Little of the original page now remains. Change copyright and license

Michael Kerrisk [Rusty Russell]

Changes after review comments from Rusty Russell

Kees Cook

Add various pieces describing Linux 2.6+ behavior

Pieces take from, or inspired by, a patch sent by Kees.

getauxval.3

Michael Kerrisk

Document getauxval() function added in glibc 2.16

Global changes

Various pages

Michael Kerrisk

Global fix: Use consistent capitalization in NAME section

The line(s) in the NAME section should only use capitals where English usage dictates that. Otherwise, use lowercase throughout.

Various pages

Michael Kerrisk

Global fix: "userspace" ==> "user space" or "user-space"

Existing pages variously use "userspace" or "user space".

But, "userspace" is not quite an English word.
So change "userspace" to "user space" or, when used
attributively, "user-space".

Changes to individual pages

clock_getres.2

clock_nanosleep.2

Michael Kerrisk

Linking with -lrt is no longer needed from glibc 2.17 onward

create_module.2

Michael Kerrisk

Note that this system call is present only in kernels before 2.6

Michael Kerrisk

Note that ENOSYS probably indicates kernel 2.6+

execve.2

Michael Kerrisk

Document treatment of PR_SET_PDEATHSIG on execve()

Michael Kerrisk

Document treatment of SECBIT_KEEP_CAPS securebits flag on execve()

fork.2

Michael Kerrisk

Note treatment of default timer slack value on fork()

getdomainname.2

Simon Paillard [Lars Wirzenius]

Point out that these calls relate to NIS, not DNS

See <http://bugs.debian.org/295635>

get_kernel_syms.2

Michael Kerrisk

Note that this system call is present only in kernels before 2.6

ipc.2

Michael Kerrisk

Update note on architectures that don't have ipc()

Replace mention of ia64 with x86-64 and ARM.

link.2

Michael Kerrisk

Add EPERM error triggered by /proc/sys/fs/protected_hardlink

prctl.2

Michael Kerrisk

Mention Documentation/prctl/no_new_privs.txt for PR_SET_NO_NEW_PRIVS

Kees Cook

update seccomp sections for mode 2 (BPF)

This adds a short summary of the arguments used
for "mode 2" (BPF) seccomp.

Michael Kerrisk

Small improvements to PR_SET_SECCOMP discussion

Note type of 'arg3' for SECCOMP_MODE_FILTER.

Add pointer to Documentation/prctl/seccomp_filter.txt.

Michael Kerrisk

Note 'seccomp' semantics with respect to fork(), execve(), and prctl()

Michael Kerrisk

Document PR_SET_TIMERSLACK and PR_GET_TIMERSLACK

Michael Kerrisk

Reword PR_SET_NAME and PR_GET_NAME in terms of threads

Plus tfix

Kees Cook

document PR_SET_NO_NEW_PRIVS, PR_GET_NO_NEW_PRIVS

This adds a short description of the no_new_privs bit,
as described in Documentation/prctl/no_new_privs.txt.

ptrace.2

Michael Kerrisk

Clarify that some operations are not present on all architectures

PTRACE_GETREGS, PTRACE_SETGREGS, PTRACE_GETFPREGS,

and PTRACE_GETSPREGS are not present on all architectures.

PTRACE_SYSEMU and PTRACE_SYSEMU_SINGLESTEP are present only
on x86.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=122383>

query_module.2

Michael Kerrisk

Add a few words clarifying reference to /sys/module

Michael Kerrisk

Note that this system call is present only in kernels before 2.6

Michael Kerrisk

Note that ENOSYS probably indicates kernel 2.6+

Michael Kerrisk

SEE ALSO: Add modinfo(8) and lsinfo(8)

Michael Kerrisk

Move some information in NOTES to VERSIONS

socketcall.2

Michael Kerrisk

Update note on architectures that don't have socketcall()

Replace mention of ia64 with x86-64 and ARM.

times.2

Thomas Habets

Recommend `clock_gettime(2)` as alternative to `times(2)`

`clock_getcpuclockid.3`

Michael Kerrisk

Linking with `-lrt` is no longer needed from `glibc 2.17` onward

`fts.3`

Simon Paillard [James Youngman]

Improve description of physical vs. logical tree walking

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=633505>

`getenv.3`

Michael Kerrisk

SEE ALSO: add `getauxval(3)`

`proc.5`

Michael Kerrisk

Document `/proc/meminfo`

Info mostly taken from `Documentation/filesystems/proc.txt`
and `Documentation/vm/hugetlbpage.txt`.

Michael Kerrisk

Default for `/proc/sys/fs/protected_{hardlinks,symlinks}` is now 0

The default setting of 1 in `/proc/sys/fs/protected_hardlinks`
and `/proc/sys/fs/protected_symlinks` caused one too many
breakages for Linus's taste, so commit `561ec64ae67e` changed
the default for both files to 0.

Note system call error yielded by `/proc/sys/fs/protected_symlinks`

Note that violating 'protected_symlinks' restrictions
causes system calls to fail with the error `EACCES`.

Michael Kerrisk

Since Linux 2.6.27, `/proc/sys/kernel/modprobe` depends on `CONFIG_MODULES`

`ipv6.7`

Bert Hubert

Document `IPV6_RECVPKTINFO`

`man-pages.7`

Michael Kerrisk

Note rules for capitalization in `NAME` section

`time.7`

Michael Kerrisk

Add a subsection on timer slack

`ld.so.8`

Michael Kerrisk

SEE ALSO: add getauxval(3)

===== Changes in man-pages-3.45 =====

Released: 2012-12-21, Christchurch

Contributors

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Apologies if I missed anyone!

New and rewritten pages

s390_runtime_instr.2

Jan Glauber

New page for s390-specific s390_runtime_instr(2)

if_nameindex.3

YOSHIFUJI Hideaki

Document if_nameindex(3) and if_freenameindex(3)

Michael Kerrisk

Edits, improvements and corrections to Hideaki's page

Michael Kerrisk

Add an example program

if_nametoindex.3

YOSHIFUJI Hideaki

New page documenting if_nametoindex(3) and if_indeXToname(3)

New and changed links

if_freenameindex.3

Michael Kerrisk

New link to if_nameindex.3

if_indeXToname.3

Michael Kerrisk

New link to if_nametoindex.3

Global changes

sysconf.3

cciss.4

Michael Kerrisk

Global fix: s/runtime/run time/

Changes to individual pages

clone.2

Michael Kerrisk

Since 2.6.30, CLONE_NEWIPC also supports POSIX message queues

delete_module.2

Michael Kerrisk

Small rewording of description of effect of O_TRUNC

getrlimit.2

Michael Kerrisk [Trevor Woerner]

Document Linux's nonstandard treatment of RLIMIT_CPU soft limit

Upon encountering the RLIMIT_CPU soft limit when a SIGXCPU handler

has been installed, Linux invokes the signal handler *and* raises

the soft limit by one second. This behavior repeats until the limit is encountered. No other implementation that I tested (Solaris 10, FreeBSD 9.0, OpenBSD 5.0) does this, and it seems unlikely to be POSIX-conformant. The (Linux-specific) RLIMIT_RTTIME soft limit exhibits similar behavior.

Michael Kerrisk

Point reader at discussion of /proc/[pid]/limits in proc(5)

io_getevents.2

Michael Kerrisk

io_getevents() may cause segfault when called with invalid ctx_id

For reference see: <http://marc.info/?l=linux-aio&m=130089887002435&w=2>

recv.2

Michael Kerrisk [Eric Dumazet]

UNIX domain sockets support MSG_TRUNC since 3.4

sendmmsg.2

Elie De Brauwier

Add example program for sendmmsg()

stat.2

Simon Paillard

Clarify description of EOVERFLOW error

The EOVERFLOW error is not only for st_size, but also inode and block size fields. See glibc source file sysdeps/unix/sysv/linux/xstatconv.c and kernel source file fs/stat.c. Also, fix bit/byte confusion

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=604928>

syscalls.2

Michael Kerrisk

Update various references to "i386" to "x86"

Michael Kerrisk

Add s390_runtime_instr(2)

sysctl.2

Michael Kerrisk

Mention CONFIG_SYSCTL_SYSCALL

Michael Kerrisk

Calls to sysctl() log warnings to the kernel log since 2.6.24

syslog.2

Michael Kerrisk

Substantially reorganize discussion of commands

Make the layout of the discussion of the commands more readable.

Michael Kerrisk

Add kernel symbolic 'type' names

Michael Kerrisk

Clarify SYSLOG_ACTION_SIZE_UNREAD semantics

SYSLOG_ACTION_SIZE_UNREAD returns the number of bytes available for reading via SYSLOG_ACTION_READ.

Michael Kerrisk

Clarify where SYSLOG_ACTION_READ_ALL places data it reads

Michael Kerrisk

Clarify semantics of SYSLOG_ACTION_CLEAR

The SYSLOG_ACTION_CLEAR command (5) does not really clear the ring buffer; rather it affects the semantics of what is returned by commands 3 (SYSLOG_ACTION_READ_ALL) and 4 (SYSLOG_ACTION_READ_CLEAR).

Michael Kerrisk

Clarify discussion of privileges for commands 3 and 10

Michael Kerrisk

Add mention of CONFIG_LOG_BUF_SHIFT

wait.2

Michael Kerrisk

BUGS: Document odd waitid() behavior when 'infof' is NULL

getifaddr.3

Michael Kerrisk [Julien Cristau]

Update description of ifa_data to Linux 2.6+ reality

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=526778>

memcmp.3

Michael Kerrisk [Jon Grant]

Enhance RETURN VALUE text and remove redundant text from DESCRIPTION

Note that sign of result equals sign of difference between first two bytes that differ (treated as "unsigned char")."

mkstemp.3

Michael Kerrisk [Florian Weimer]

Deemphasize discussion of mode 066 in glibc 2.0.6

Glibc 2.0.6 is now so ld that the discussion of details of that version can be deemphasized placing just under NOTES.

See https://bugzilla.kernel.org/show_bug.cgi?id=51811

strcmp.3

Michael Kerrisk [Jon Grant]

Enhance RETURN VALUE text and remove redundant text from DESCRIPTION

Note that sign of result equals sign of difference between first two bytes that differ (treated as "unsigned char")."

ttyname.3

Michael Kerrisk

Fix confused text in ERRORS

The existing text suggested that the ERRORS applied only for ttyname_r(). However, 2 of the 3 errors can occur for ttyname().

undocumented.3

Michael Kerrisk

Remove some now documented functions

proc.5

Michael Kerrisk [Jim Paris]

Correct description of SwapFree in /proc/meminfo

Michael Kerrisk

Note change of /proc/[pid]/limits file permissions in 2.6.36

resolv.conf.5

Simon Paillard

Document IPv6 format for nameserver

See: <http://bugs.debian.org/610036>

capabilities.7

Michael Kerrisk [Rens van der Heijden]

Correct URL for POSIX.1e draft

ipv6.7

Gao Feng

Add description of getsockopt() for IPV6_MTU

In IPv4, IP_MTU is only supported by getsockopt.

In IPv6, we can use IPV6_MTU to set socket's MTU, but the return value of getsockopt() is the path MTU.

rtnetlink.7

Michael Kerrisk [Julien Cristau]

Update description of IFLA_STATS to Linux 2.6+ reality

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=526778>

socket.7

Michael Kerrisk [YOSHIFUJI Hideaki]

Document 'sockaddr' and 'sockaddr_storage' types

Andi Kleen

Explain effect of SO_SNDTIMEO for connect()

When SO_SNDTIMEO is set before connect(), then connect() may return EWOULDBLOCK when the timeout fires.

==== Changes in man-pages-3.46 =====

Released: 2013-01-27, Canberra

Contributors

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Apologies if I missed anyone!

New and rewritten pages

kcmp.2

Cyrill Gorcunov, Michael Kerrisk

New page for kcmp(2)

Newly documented interfaces in existing pages

init_module.2

Michael Kerrisk [Kees Cook, Rusty Russell, Lucas De Marchi]

Document finit_module(2)

Rusty Russell [Lucas De Marchi, Kees Cook]

Document finit_module() 'flags' argument

Document MODULE_INIT_IGNORE_MODVERSIONS and
MODULE_INIT_IGNORE_VERMAGIC. (Some edits by mtk.)

New and changed links

finit_module.2

Michael Kerrisk

New link to init_module.2

__after_morecore_hook.3

__free_hook.3

__malloc_initialize_hook.3

__memalign_hook.3

__realloc_hook.3

Michael Kerrisk

New link to malloc_hook.3

Global changes

Various pages

Michael Kerrisk

Global fix: s/tty/terminal/

Changes to individual pages

clone.2

Michael Kerrisk

Add kernel versions for various CLONE_* constants

Michael Kerrisk

CLONE_NEWIPC governs mechanisms that don't have filesystem pathnames

Michael Kerrisk

CLONE_NEWIPC doesn't mount the POSIX MQ file system

Michael Kerrisk

Add an example program (CLONE_NEWUTS)

Michael Kerrisk

Some reworking of CLONE_NEWIPC text

No substantial content changes.

Michael Kerrisk

SEE ALSO: add kcmp(2)

SEE ALSO: add setns(2)

fallocate.2

Michael Kerrisk

FALLOC_FL_* flags are defined in glibc only since 2.18

getxattr.2

removexattr.2

setxattr.2

Michael Kerrisk [Andrew Perepechko,]

Note that ENOATTR is a synonym for ENODATA

Various people have pointed out that strace(1) shows ENODATA for the case where the named attribute does not exist, or the process has no access to this attribute. ENODATA and ENOATTR are in fact defined as synonyms. Point this out in the man page, so that people understand the strace(1) info.

See https://bugzilla.kernel.org/show_bug.cgi?id=51871

getxattr.2

listxattr.2

removexattr.2

setxattr.2

Michael Kerrisk

Put errors under ERRORS section

The errno values on these pages were listed in a nonstandard way under the RETURN VALUE section. Put them in ERRORS sections.

init_module.2

Michael Kerrisk [Rusty Russell]

ERRORS: Add errors for module signatures (EBADMSG, ENOKEY)

link.2

mkdir.2

mknod.2

open.2

rename.2

symlink.2

write.2

mkfifo.3

Mark Hills

Document EDQUOT error

The return error EDQUOT is not documented in open(2), write(2), symlink(2) etc.

Whether inodes or disk blocks are required for each function is something I based on received wisdom and BSD documentation, rather than tracing the code to the kernel. For symlink(2) this certainly depends on the file system type.

listxattr.2

Michael Kerrisk [Theodore Ts'o]

Fix RETURN VALUE description

On success, 0 may be returned, so change wording from "positive number" to "nonnegative number".

outb.2

Michael Kerrisk

Add SYNOPSIS

prctl.2

Kees Cook

Document PR_SET_PTRACER

Document the Yama LSM's prctl handler that allows processes to declare ptrace restriction exception relationships via PR_SET_PTRACER.

Michael Kerrisk

Make it explicit that PR_SET_PTRACER replaces previous setting
The attribute is a scalar, not a list.

Shawn Landden

Document EINVAL error for PR_SET_PTRACER

Michael Kerrisk

Document PR_GET_TID_ADDRESS

ptrace.2

Michael Kerrisk

Document PTRACE_O_EXITKILL

Michael Kerrisk

Place PTRACE_SETOPTIONS list in alphabetical order

query_module.2

Michael Kerrisk

Must be called using syscall(2)

Yes, the call is way obsolete, but add this info for completeness.

recvmsg.2

Elie De Brauer

Add/correct kernel version info for recvmsg() and MSG_WAITFORNONE

This patch isolates the since/version related fixes as requested.

This change introduces the following delta:

- * The page states it was added in 2.6.32 but it is only added 2.6.33 (ref: http://kernelnewbies.org/Linux_2_6_33)
- * The MSG_WAITFORONE flag was in turn only added in 2.6.34 (ref: http://kernelnewbies.org/Linux_2_6_34)

Elie De Brauwer

Add an example program

setns.2

Michael Kerrisk

Add example program

sigaction.2

Michael Kerrisk [Zsbán Ambrus]

Note feature test macro requirements for 'siginfo_t'

See https://bugzilla.kernel.org/show_bug.cgi?id=52931

syscalls.2

Michael Kerrisk

Add kern_features(2)

Michael Kerrisk

Add utrap_install(2)

Sparc-specific, present since ancient times

Michael Kerrisk

Add finit_module(2)

sysctl.2

Michael Kerrisk [Garrett Cooper]

ERRORS: EACCES as a synonym for EPRM

See https://bugzilla.kernel.org/show_bug.cgi?id=46731

and <http://thread.gmane.org/gmane.linux.ltp/11413/focus=957635>

From: Garrett Cooper <yanegomi <at> gmail.com>

Subject: Re: [LTP] [PATCH] sysctl03: sysctl returns EACCES after 2.6.33-rc1

Newsgroups: gmane.linux.kernel, gmane.linux.ltp

Date: 2010-03-04 18:35:33 GMT

unshare.2

Michael Kerrisk

Update NOTES on unimplemented flags

Michael Kerrisk

Fix text problems in description of CLONE_FS

Michael Kerrisk

SEE ALSO: add kcmp(2)

SEE ALSO: add setns(2)

Michael Kerrisk

Reorder CLONE_NEWUTS entry in list

difftime.3

Michael Kerrisk [Michal Gorny]

Remove crufty text about 'time_t' on "other systems"

Back in 2006, some text came in via Debian patches that seems crufty. Remove it.

See https://bugzilla.kernel.org/show_bug.cgi?id=46731

getaddrinfo.3

getnameinfo.3

Michael Kerrisk [Peter Budny]

Fix some confused references to function names

See https://bugzilla.kernel.org/show_bug.cgi?id=52741

getspnam.3

Michael Kerrisk [Wolfgang Rohdewald]

ERRORS: Add EACCES

See https://bugzilla.kernel.org/show_bug.cgi?id=52681

__setfpucw.3

Michael Kerrisk

Add proper page cross refs for alternate functions

core.5

proc.5

Kees Cook

Clarify suid_dumpable versus core_pattern

In Linux 3.6, additional requirements were placed on core_pattern when suid_dumpable is set to 2. Document this and include commit references.

Justin Lebar

statm's "shared" field refers to pages backed by files

I noticed that statm's "shared" field doesn't match the sum of all the "shared" entries in smaps [1].

The kernel docs explain that statm's "shared" field is "number of pages that are shared (i.e. backed by a file)" [2]. smaps appears to call a page shared if it's mapped by at least two processes, which explains this discrepancy.

I'm not a kernel hacker, but it appears to me they do mean "i.e." and not "e.g." in the statm description: In fs/proc/task_mmu.c::task_statm, I see

```
*shared = get_mm_counter(mm, MM_FILEPAGES);
```

Here's a patch which updates the man page to match the (hopefully correct) kernel docs.

[1] https://bugzilla.mozilla.org/show_bug.cgi?id=807181

[2]

<http://git.kernel.org/?p=linux/kernel/git/torvalds/linux.git;a=blob;f=Documentation/filesystems/proc.txt;h=a1793d670cd01bd374eddf54ffdfc768504291ff;hb=HEAD>

proc.5

Kees Cook

Put /proc/sys/kernel/hotplug in alphabetical order

Kees Cook

Document /proc/sys/kernel/dmesg_restrict

Kees Cook

Linux 3.4 changed permissions needed to change kptr_restrict

Michael Kerrisk [Samuel Thibault, Simon Paillard]

Add field numbers for /proc/PID/stat

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=553413>

Add numbering to /proc/stat "cpu" fields

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=553413>

Michael Kerrisk

Reorganize text describing /proc/stat "cpu" fields

Michael Kerrisk

Rewording of suid_dumpable text after comments from Kees Cook

Michael Kerrisk [Samuel Thibault, Simon Paillard]

Add field numbers for /proc/[pid]/statm

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=553413>

Michael Kerrisk

Document /proc/stat "cpu" "nice_guest" field

Info taken from commit [ce0e7b28fb75cb003cfc8d0238613aaf1c55e797](https://git.kernel.org/torvalds/commit/ce0e7b28fb75cb003cfc8d0238613aaf1c55e797)

Michael Kerrisk [Peter Lekeynstein]

Document /prod/[pid]/oom_score_adj

Text taken directly from Documentation/filesystems/proc.txt,
with some light editing.

See https://bugzilla.kernel.org/show_bug.cgi?id=50421

shells.5

Michael Kerrisk

Add /etc/bash to list of example shells

ttytype.5

Michael Kerrisk

Add proper xref for termcap and terminfo pages

capabilities.7

Michael Kerrisk

Add `kcmp(2)` under `CAP_SYS_PTRACE`

man-pages.7

Michael Kerrisk

Update description of Section 7

===== Changes in man-pages-3.47 =====

Released: 2013-02-12, Christchurch

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Apologies if I missed anyone!

New and rewritten pages

perf_event_open.2

Vincent Weaver

New page documenting perf_event_open(2)

pthread_setname_np.3

Chandan Apsangi, Michael Kerrisk

New page for pthread_setname_np(3) and pthread_getname_np(3)

sln.8

Michael Kerrisk [Peter Schiffer]

New page documenting the 'sln' command provided by glibc
Inspired by a Red Hat downstream page, but with rather
more detail.

Newly documented interfaces in existing pages

prctl.2

Michael Kerrisk [Shawn Landden, Lennart Poettering]

Document PR_SET_CHILD_SUBREAPER and PR_GET_CHILD_SUBREAPER

ip.7

Radek Pazdera

Add source-specific multicast sockopts

This patch adds documentation of several source-specific multicast socket options that were added to kernel with implementation of IGMPv3 in 2.5.68.

The following socket options were added:

IP_ADD_SOURCE_MEMBERSHIP

IP_DROP_SOURCE_MEMBERSHIP

IP_BLOCK_SOURCE

IP_UNBLOCK_SOURCE

IP_MSFILTER

Pages moved across sections

getcontext.3

Michael Kerrisk

This page really belongs in Section 3 (moved from Section 2)

getdtablesize.3

Michael Kerrisk

Move from Section 2

New and changed links

getcontext.2

Michael Kerrisk

Make link to page moved into Section 3

getdtablesize.2

Michael Kerrisk

Link to renamed getdtablesize.3

setcontext.2

Michael Kerrisk

Modify link to point to Section 3

pthread_getname_np.3

Michael Kerrisk

New link to new pthread_setname_np.3

setcontext.3

Michael Kerrisk

Link to getcontext page renamed into Section 3

Changes to individual pages

fallocate.2

Michael Kerrisk

SEE ALSO: add fallocate(1)

flock.2

Michael Kerrisk

SEE ALSO: add flock(1)

fork.2

Michael Kerrisk

SEE ALSO: add exit(2)

getpriority.2

Michael Kerrisk

BUGS: note that nice value is per-thread on Linux

getrlimit.2

Michael Kerrisk

SEE ALSO: add prlimit(1)

gettid.2

Michael Kerrisk

SEE ALSO: add various system calls that use thread IDs

ioprio_set.2

Michael Kerrisk

SEE ALSO: add ionice(1)

sched_setaffinity.2

Michael Kerrisk

SEE ALSO: add taskset(1)

sched_setparam.2

Michael Kerrisk

Scheduling policy and parameters are per-thread on Linux

Direct the reader to the discussion in sched_setscheduler(2).

sched_setscheduler.2

Michael Kerrisk

Scheduling policy and parameters are per-thread on Linux

Michael Kerrisk

SEE ALSO: add chrt(1)

setsid.2

Michael Kerrisk

SEE ALSO: add setsid(1)

shmop.2

Michael Kerrisk [Peter Schiffer]

ERRORS: Add EIDRM

Taken from Red Hat downstream patch

sigaction.2

makecontext.3

Michael Kerrisk

Change getcontext/setcontext page ref to Section 3

signal.2

Michael Kerrisk [Reuben Thomas]

Clarify System V vs BSD semantics for signal()

syscalls.2

Michael Kerrisk

The list on this page is not just syscalls common to all platforms

Michael Kerrisk

Add perfctr(2)

Add ppc_rtas(2)

Michael Kerrisk

Add kernel version number of utrap_install(2)

unimplemented.2

Michael Kerrisk [Peter Schiffer]

Remove mention of kernel version number in DESCRIPTION

inet.3

Michael Kerrisk [Peter Schiffer]

Fix error in EXAMPLE using inet_aton()

See https://bugzilla.redhat.com/show_bug.cgi?id=837090

Patch taken from Red Hat downstream.

posix_fallocate.3

Michael Kerrisk

SEE ALSO: add fallocate(1)

regex.3

Reuben Thomas

Clarify details of matching

The first is that it's far from clear that the end points of the complete string match are stored in the zero'th element of the `regmatch_t` array; secondly, the phrase "next largest substring match" is positively misleading, implying some sort of size ordering, whereas in fact they are ordered according to their appearance in the regex pattern.

scanf.3

Michael Kerrisk

Clarify meaning of "string conversions" for 'm' modifier

Mike Frysinger

Update %a vs %m documentation

POSIX.1-2008 adopted the 'm' flag for dynamic allocation. Update page to cover it and relegate the glibc-specific 'a' flag to NOTES.

strtol.3

Michael Kerrisk [Peter Schiffer]

Replace some bogus text about "thousands separator"

See https://bugzilla.redhat.com/show_bug.cgi?id=652870

sysconf.3

Michael Kerrisk [Peter Schiffer]

Use "_SC_PAGESIZE" consistently on page

`s/_SC_PAGE_SIZE/_SC_PAGESIZE/` in one instance.

From Red Hat downstream patch.

nscd.conf.5

Peter Schiffer

Add max-db-size and auto-propagate descriptions, default values, + misc

- * added missing valid services (services and netgroup)

- * added many default values for options

- * reordered options according to the nscd.conf file (logical order)

- * added 2 missing options: max-db-size and auto-propagate

nsswitch.conf.5

Peter Schiffer

Mention `initgroups db`

proc.5

Michael Kerrisk

Document `/proc/profile`

Michael Kerrisk [Peter Schiffer]

Update /proc/sys/fs/file-nr to include Linux 2.6 details

Michael Kerrisk

Clarify relationship between file-max and file-nr

The third value in /proc/sys/fs/file-nr is the same as the value in /proc/sys/fs/file-max.

Michael Kerrisk

Note message written to kernel log when file-max limit is hit

Info from Documentation/sysctl/fs.txt.

Michael Kerrisk

Mention lscpu(1) under discussion of /proc/cpuinfo

resolv.conf.5

Michael Kerrisk [Peter Schiffer]

Document "single-request-reopen" option

Taken from Red Hat downstream patch

See https://bugzilla.redhat.com/show_bug.cgi?id=717770

See <http://thread.gmane.org/gmane.linux.man/3161>

utmp.5

Michael Kerrisk

SEE ALSO: add utmpdump(1)

cpuset.7

Simon Paillard

Add missing 'cpuset.' prefix for some flags

See kernel commit e21a05cb408bb9f244f11a0813d4b355dad0822e

svipc.7

Michael Kerrisk

SEE ALSO: add ipcmk(1), ipcrm(1), ipcs(1)

termio.7

Michael Kerrisk

SEE ALSO: add reset(1), setterm(1), stty(1), tty(4)

ld.so.8

Michael Kerrisk [Peter Schiffer]

LD_VERBOSE does not work with ld.so --list and --verify

From Red Hat downstream patch

See https://bugzilla.redhat.com/show_bug.cgi?id=532629

Michael Kerrisk

SEE ALSO: add sln(8)

zdump.8

Michael Kerrisk [Peter Schiffer]

Bring up to date with zdump --help

Patch taken from Red Hat downstream.

===== Changes in man-pages-3.48 =====

Released: 2013-03-05, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

getunwind.2

Marcela Maslanova

New page documenting getunwind(2)

Taken from Red Hat downstream man pages set

Michael Kerrisk

Much rewriting

Some text taken from arch/ia64/kernel/unwind.c.

perfmonctl.2

Ivana Varekova

New page documenting IA-64-specific perfmonctl(2)

Taken from Red Hat downstream man pages

Michael Kerrisk

Rework discussion of PFM_CREATE_CONTEXT

Add VERSIONS and CONFORMING TO

Note that there is no glibc wrapper

Remove PFM_CREATE_EVTSETS, PFM_DELETE_EVTSETS, PFM_GETINFO_EVTSETS

These don't exist, and it appears they never have.

Fix argument types for PFM_WRITE_PMCS, PFM_WRITE_PMDS, PFM_READ_PMDS

The types that were being used don't exist!

Briefly document PFM_GET_FEATURES, PFM_DEBUG, PFM_GET_PMC_RESET_VAL

gai.conf.5

Ulrich Drepper

New page documenting gai.conf

Taken from Red Hat downstream pages

nss.5

Ulrich Drepper

New page describing nss.conf

Newly documented interfaces in existing pages

clock_getres.2

Cyril Hrubis

Document CLOCK_REALTIME_COARSE and CLOCK_MONOTONIC_COARSE

Cyril Hrubis

Document CLOCK_BOOTTIME

Michael Kerrisk

Some improvements to CLOCK_BOOTTIME description

ptrace.2

Denys Vlasenko

Document PTRACE_GETREGSET, PTRACE_SETREGSET, PTRACE_SEIZE, and friends

Document PTRACE_GETREGSET, PTRACE_SETREGSET,

PTRACE_SEIZE, PTRACE_INTERRUPT, and PTRACE_LISTEN.

New and changed links

fattach.2

fdetach.2

getmsg.2

isastream.2

putmsg.2

Michael Kerrisk [Peter Schiffer]

New link to unimplemented.2

Taken from Red Hat downstream.

See https://bugzilla.redhat.com/show_bug.cgi?id=436407

Global changes

Many pages

Michael Kerrisk

Global fix: remove unneeded double quotes in .SH headings

Many pages

Michael Kerrisk

Global fix: remove unneeded double quotes in .SS headings

Many pages

Michael Kerrisk

Global fix: use consistent capitalization in .SS headings

Capitalization in .SS sections across pages (and sometimes even within a single page) is wildly inconsistent. Make it consistent.

Capitalize first word in heading, but otherwise use lower case, except where English usage (e.g., proper nouns) or programming language requirements (e.g., identifier names) dictate otherwise.

Many pages

Michael Kerrisk [Denys Vlasenko]

Remove double blank lines in output

Various pages

Michael Kerrisk

Fix order of SH sections

Changes to individual pages

accept.2

Michael Kerrisk

NAME: Add "accept4"

access.2

Colin Walters

Note that access() may also fail for FUSE

Since in some cases (e.g. libguestfs's guestmount) it also has the semantics where files can appear owned by root, but are actually mutable by the user, despite what one might infer from the Unix permissions.

getpeername.2

Michael Kerrisk [Kai Kunschke]

Clarify semantics of getpeername() for datagram sockets

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=674034>

getuid.2

Michael Kerrisk

Remove duplicate section heading

mmap.2

Cyril Hrubis

Add note about partial page in BUGS section

This adds a note about Linux behavior with partial page at the end of the object. The problem here is that a page that contains only part of a file (because the file size is not multiple of PAGE_SIZE) stays in page cache even after the mapping is unmapped and the file is closed. So if some process dirties such page, other mappings will see the changes rather than zeroes.

Michael Kerrisk [Török Edwin]

Some 'flags' values require a feature test macro to be defined

Add text to NOTES noting that some MAP_* constants are defined only if a suitable feature test macro is defined.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=542601>

Cyril Hrubis

Document EOVERFLOW error

open.2

Michael Kerrisk

Clarify list of file creation flags

POSIX.1-2008 TC1 clarified this, so that O_CLOEXEC,

O_DIRECTORY, and O_NOFOLLOW are also in this list.

prctl.2

Cyrill Gorcunov

Add some details for PR_GET_TID_ADDRESS

read.2

Michael Kerrisk [Zack Weinberg]

Clarify interaction of count==0 and error checking
POSIX deliberately leaves this case open, so the man
page should be less specific about what happens.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=533232>

Michael Kerrisk [Marc Lehmann]

Remove crufty text about O_NONBLOCK on files
See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=700529>

Michael Kerrisk

Clarify details for seekable files

unimplemented.2

Michael Kerrisk [Peter Schiffer]

Add various STREAMS interfaces to NAME
Taken from Red Hat downstream.

See https://bugzilla.redhat.com/show_bug.cgi?id=436407

cexp2.3

Michael Kerrisk

Still does not exist in glibc 2.17

exit.3

Michael Kerrisk

Note that a call to `execve()` clears exit handler registrations

getaddrinfo.3

Michael Kerrisk

SEE ALSO: `Add gai.conf(5)`

malloc_trim.3

Michael Kerrisk

Remove duplicate section title

printf.3

Marshall Abraham [Graham Gower, Graham Gower]

Fix error handling in example code
See https://bugzilla.kernel.org/show_bug.cgi?id=23282

pthread_yield.3

Michael Kerrisk [Aristeu Rozanski]

Add `_GNU_SOURCE` feature test macro to SYNOPSIS

resolver.3

resolv.conf.5

Michael Kerrisk [Nathan Stratton Treadway, Simon Heimberg]

RES_DEBUG is only available if glibc is compiled with debug support

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=692136>

and https://bugzilla.kernel.org/show_bug.cgi?id=43061

strtol.3

Michael Kerrisk [Peter Schiffer]

Remove crufty text from previous fix

core.5

Michael Kerrisk

Document CONFIG_COREDUMP

capabilities.7

Andrey Vagin

Nonexistent bits are no longer shown as set in /proc/PID/status Cap*

inotify.7

Michael Kerrisk

A monitoring process can't easily distinguish events triggered by itself

ip.7

Flavio Leitner [Peter Schiffer]

Improve explanation about calling listen() or connect()

man-pages.7

Michael Kerrisk

Describe rules for capitalization in .SS headings

rtnetlink.7

Pavel Emelyanov

Add info about ability to create links with given index

Since kernel v3.7 the RTM_NEWLINK message now accepts nonzero

values in ifi_index field. Mention this fact in the respective

rtnetlink.7 section.

socket.7

Pavel Emelyanov

SO_BINDTODEVICE is now readable

SO_BINDTODEVICE is readable since kernel 3.8.

==== Changes in man-pages-3.49 =====

Released: 2013-03-10, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

Michael Kerrisk <mtk.manpages@gmail.com>

Global changes

The goal of the changes below to consistently format copyright and license information in the comments in the page source at the top of each page. This allows for easy scripting to extract that information. Following these changes the comments the top of the page source should now consistently have the form:

```
.\" <copyright info, possibly spread over several lines>
.\"
.\" %%LICENSE_START(<license-type>)
.\" <license text>
.\" %%LICENSE_END
.\" <other comments>
```

Note that the 'license-type' is merely descriptive. Its purpose is to simplify scripting for the purpose of gathering statistics on types of licenses used in man-pages. It is NOT a statement about the actual licensing of the page; that license is contain INSIDE the LICENSE_START...LICENSE_END clause.

All pages

Michael Kerrisk

Add a LICENSE_START()...LICENSE_END clause in source at top of each page that encapsulates the license text.

Michael Kerrisk

Put copyright info at top of page, followed by blank line and LICENSE

Various pages

Michael Kerrisk

Update info in source comments on where to get a copy of the GPL

Various pages

Michael Kerrisk

Remove "Hey Emacs" comment in page source

Only certain pages have this; there is no consistency, so remove it from all pages

Michael Kerrisk

Remove "-*- nroff -*-" comment at top of source

===== Changes in man-pages-3.50 =====

Released: 2013-03-15, Munich

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Simon Paillard <spillard@debian.org>

Apologies if I missed anyone!

New and rewritten pages

canonicalize_file_name.3

Michael Kerrisk

Rewrite page, adding much more detail

Global changes

Various pages

Michael Kerrisk

Global fix: s/END_LICENSE/LICENSE_END/

Various pages

Michael Kerrisk

Global fix: s/bitmask/bit mask/

Changes to individual pages

getent.1

Mark R Bannister

netgroup description incorrectly refers to initgroups

capget.2

Michael Kerrisk

Update URL for libcap

fork.2

Michael Kerrisk

Port access permission bits (ioperm()) are turned off in the child

futex.2

Michael Kerrisk

'timeout' is a minimum duration that the call will wait, not a maximum

ioperm.2

Michael Kerrisk

Note that iopl() level of 3 is needed to access ports

Michael Kerrisk

'num' is *bits* not bytes!

Michael Kerrisk

Linux 2.6.8 lifted the port limit to 65,536

See <http://article.gmane.org/gmane.linux.kernel/202624/>

From: Stas Sergeev <stsp@aknet.ru>

Subject: [patch][rfc] Larger IO bitmap

Date: 2004-05-07 19:55:03 GMT

Michael Kerrisk

ioperm() operates on the calling *thread* (not process)

Michael Kerrisk

Clarify meaning of 'turn_on' argument

Plus form formatting fixes.

Michael Kerrisk

Clarify that default state of permission bits in child is off

Michael Kerrisk

NOTES: add mention of /proc/ioports

Michael Kerrisk

SEE ALSO: add outb(2)

iopl.2

Michael Kerrisk

CAP_SYS_RAWIO is required to *raise* the I/O privilege level

Michael Kerrisk

Clarify that the two least significant bits of 'level' are what matter

Michael Kerrisk

SEE ALSO: add outb(2)

syscalls.2

Michael Kerrisk

Add version information for all (other) syscalls

Michael Kerrisk

Add perfmonctl(2)

futimes.3

Michael Kerrisk [Jonathan Nieder]

ERRORS: Add ENOSYS for lutimes()

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=620746>

getpass.3

Michael Kerrisk [Erik Saule]

Suggest use of the ECHO flag as an alternative

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=644261>

realpath.3

Michael Kerrisk

Document GNU extensions for EACCES and ENOENT errors

stdarg.3

Michael Kerrisk [Friedrich Delgado Friedrichs]

Describe va_copy()

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=575077>

termios.3

Michael Kerrisk [Bernhard Kuemel]

Mention that noncanonical mode does not do input processing

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=643854>

random.4

Elie De Brauwer

Document write and document the ioctl interface of /dev/random

The update consists out of two parts:

- a minor thing which just documents what happens if a write to /dev/(u)random is performed, which is used in the example script but not explicitly mentioned.
- the other (biggest) part is the documentation of the ioctl() interface which /dev/(u)random exposes. This ioctl() lives in drivers/char/random.c and the primitives can be found in include/linux/random.h

One comment remains, there used to be an RNDGETPOOL ioctl() which disappeared in v2.6.9. I found two patches on the net:

- <http://www.kernel.org/pub/linux/kernel/people/akpm/patches/2.6/2.6.8.1/2.6.8.1-mm4/broken-out/dev-random-remove-rndgetpool-ioctl.patch>

- <https://lkml.org/lkml/2004/3/25/168>

But as far as I can tell the first one got applied but the 2nd one seems more correct. The result is that even today one can still find traces of the RNDGETPOOL ioctl() in the header files. Is this there for historical reasons or because it might break userspace, even though using it will just give an EINVAL.

bootparam.7

Jose Luis Domingo Lopez

Document 'rootfstype' option

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=182014>

capabilities.7

Michael Kerrisk

Add various pieces under CAP_SYS_RAWIO

Info obtained by grepping the kernel source.

Michael Kerrisk

Add CAP_SYS_RESOURCE /proc/PID/oom_score_adj case

netlink.7

Andrey Vagin

Add a note about broadcast messages to multiple groups

socket.7

Michael Kerrisk [Florian Weimer]

Define _GNU_SOURCE to obtain the definition of 'struct ucred'

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=572210>

==== Changes in man-pages-3.51 =====

Released: 2013-04-17, Munich

Contributors

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

sched_rr_get_interval.2

Michael Kerrisk

Document /proc/sys/kernel/sched_rr_timeslice_ms

proc.5

Pavel Emelyanov

Document /proc/[pid]/map_files directory

This directory was added in Linux v3.3 and provides info about files being mmap-ed in a way very similar to how /proc/[pid]/fd works.

v2: Added examples of how links look like and noted dependency on kernel config option CONFIG_CHECKPOINT_RESTORE.

Michael Kerrisk

Document /proc/sys/kernel/shm_rmid_forced

capabilities.7

Michael Kerrisk

Document /proc/sys/kernel/cap_last_cap

Global changes

Various pages

Michael Kerrisk

Global fix: fix placement of word "only"

Various pages

Simon Paillard

License headers: consistent format

Various pages

Michael Kerrisk

Global fix: s/since kernel/since Linux/

Various System V IPC pages in Section 2

Michael Kerrisk

Add "System V" to .TH line and text

Make it clear that these pages relate to System V IPC,
not POSIX IPC.

Changes to individual pages

access.2

Michael Kerrisk [The Wanderer]

Clarify RETURN VALUE for F_OK

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=705293>

alarm.2

Michael Kerrisk

Correct the description of behavior when 'seconds' is 0

clone.2

Michael Kerrisk [Peter Schiffer]

Add prototype for syscall to SYNOPSIS

And further clarify the distinction between the system call
and the wrapper function in the introductory text.

Michael Kerrisk

Update feature test macro requirements

The requirements quietly changed in glibc 2.14

See also http://www.sourceware.org/bugzilla/show_bug.cgi?id=4749

Michael Kerrisk [Mike Frysinger]

Clarify differences between clone2() syscall and wrapper function

Michael Kerrisk [Mike Frysinger]

Note those architectures where the sys_clone argument order differs

Michael Kerrisk [Mike Frysinger]

Add short subsection noting that blackfin, m68k, and sparc are different

Michael Kerrisk

Move clone2() text to subsection in description

The description of ia64 clone2() should follow the discussion of the raw system call interface.

Michael Kerrisk

Change subhead for ia64 discussion

getcpu.2

Michael Kerrisk

Recommend that 'tcache' should be specified as NULL nowadays

io_cancel.2

Jeff Moyer, Michael Kerrisk [Cyril Hrubis]

Improve description

io_destroy.2

Jeff Moyer

Improve description

The description was rather vague, citing a "list of I/O contexts" and stating that it "can" cancel outstanding requests. This update makes things more concrete so that the reader knows exactly what's going on.

io_getevents.2

Jeff Moyer

The 'timeout' argument is not updated

I looked back through the kernel code, and the timeout was never updated in any case. I've submitted a patch upstream to change the comment above io_getevents.

io_setup.2

Jeff Moyer

Clarify nr_events

nr_events is technically the number of completion events that can be stored in the completion ring. The wording of the man page: "capable of receiving at least nr_events" seems dubious to me, only because I worry that folks might interpret that to mean 'nr_events' total, instead of 'nr_events' concurrently.

Further, I've added information on where to find the per-user limit on 'nr_events', /proc/sys/fs/aio-max-nr. Let me know if you think that is not relevant.

listxattr.2

Michael Kerrisk

Explain use of 'size' argument

lseek.2

Michael Kerrisk [Andreas Jaeger]

`_GNU_SOURCE` must be defined to get `SEEK_DATA` and `SEEK_HOLE` definitions

See http://sourceware.org/bugzilla/show_bug.cgi?id=15312

`mmap.2`

Michael Kerrisk

Add pointers to relevant `/proc` files described in `proc(5)`

`posix_fadvise.2`

`pread.2`

`readahead.2`

`sync_file_range.2`

`truncate.2`

Michael Kerrisk

Refer to `syscall(2)` for ABI semantics on certain 32-bit architectures

Also: in `sync_file_range.2` and `posix_fadvise.2` remove description of conventional calling signature as flawed, and in `posix_fadvise.2`, de-emphasize focus on ARM, and rather phrase as a more general discussion of certain architectures.

`readdir.2`

Michael Kerrisk

`readdir(2)` doesn't exist on x86-64

`semop.2`

Michael Kerrisk

Clarify the discussion of 'semadj'

`shmctl.2`

Michael Kerrisk

Refer to `proc(5)` for description of `/proc/sys/kernel/shm_rmid_forced`

`syscall.2`

Changhee Han

Add notes that caution users when passing arguments to `syscall()`

For example, passing 'long long' on ARM-32 requires special treatment.

Mike Frysinger [Michael Kerrisk]

Document the exact calling convention for architecture system calls

Mike Frysinger [Kyle McMartin]

Add PA-RISC details under calling conventions

Michael Kerrisk [Mike Frysinger]

Refine discussion of ARM and other ABIs

`syscalls.2`

Michael Kerrisk

Update kernel version number at start of list

`umask.2`

Michael Kerrisk

SEE ALSO: [add acl\(5\)](#)

unshare.2

Michael Kerrisk

Update feature test macro requirements

The requirements quietly changed in glibc 2.14

See also http://www.sourceware.org/bugzilla/show_bug.cgi?id=4749

fopencookie.3

Michael Kerrisk [Ralph Loader]

Correct definition of `cookie_io_functions_t`

pthread_setname_np.3

Andrew Clayton

The thread argument is passed in by value

readdir.3

seekdir.3

telldir.3

Michael Kerrisk

Eliminate the implication that these functions deal with "offsets"

The directory position dealt with by the `readdir()` and `friends` is not a simple file offset in modern file systems. Typically, it is some kind of cookie value. Add text and make other changes to these pages to eliminate the implication that this is an offset, and warn the reader that directory positions should be treated strictly as opaque values.

In the process, rename the 'offset' argument of `seekdir(3)` to 'loc', and add some text to `readdir(3)` to note that the 'd_off' field is the same value returned by `telldir(3)` at the current directory position.

See also <https://lwn.net/Articles/544298/>

scalb.3

Mark H Weaver

Fix prototypes for `scalbf()` and `scalbl()`

sched_getcpu.3

Michael Kerrisk

Update feature test macro requirements

The requirements quietly changed in glibc 2.14

See also http://www.sourceware.org/bugzilla/show_bug.cgi?id=4749

ualarm.3

Michael Kerrisk [Nicolas Hillegeer]

Add note on the behavior when 'usecs' is zero

POSIX.1-2001 does not specify the behavior in this case and no other system that I checked documented the behavior.

Probably, most or all systems do what Linux does in this case: cancel any pending alarm, just as alarm(0) does.

Add that info in NOTES.

elf.5

Mike Frysinger

Add byte positions for all EI_XXX fields

When describing e_ident, most of the EI_XXX defines mention the exact byte number. This is useful when manually hacking an ELF with a hex editor. However, the last few fields don't do this, which means you have to count things up yourself.

Add a single word to each so you don't have to do that.

proc.5

Michael Kerrisk

Refer to sched_rr_get_interval(2) for info on sched_rr_timeslice_ms

Since Linux 3.9, /proc/sys/kernel/sched_rr_timeslice_ms can be used to change the SCHED_RR quantum.

Michael Kerrisk

SEE ALSO: Add sysctl(8)

Krzysztof Konopko

Simplify the example of printing out environ

The binutils package contains a very handy utility to print out null-byte delimited strings from a file. This can replace a rather complex expression with cat(1) provided as an example for printing out /proc/[pid]/environ.

Michael Kerrisk

Update /proc/PID/maps example

Update to 64-bit example that includes "[heap]", "[stack], and "[vdso]"

Michael Kerrisk

Formatting fixes for /proc/PID/maps

Mike Frysinger

Document the "pathname" field of /proc/PID/maps

Michael Kerrisk

Add reference to capabilities(7) for /proc/sys/kernel/cap_last_cap

Michael Kerrisk

/proc/PID/maps: add a reference to mmap(2)

ip.7

Radek Pazdera

Document IP_MULTICAST_ALL

This commit adds documentation for the IP_MULTICAST_ALL socket option.

The option was added to the Linux kernel in 2.6.31:

Author Nivedita Singhvi <niv@us.ibm.com>
Commit f771bef98004d9d141b085d987a77d06669d4f4f

The description is based on a previous one [3] posted by the original author of the code -- Nivedita, but it is slightly re-worded.

I tested it myself and it works as described.

References:

- [1] http://lxr.free-electrons.com/source/net/ipv4/ip_sockglue.c#L972
- [2] <http://lxr.free-electrons.com/source/net/ipv4/igmp.c#L2267>
- [3] <http://patchwork.ozlabs.org/patch/28902/>

units.7

Brian M. Carlson

units should use an actual μ

The units(7) man page uses an ASCII u in place of the actual Greek letter mu. Since we're in the twenty-first century, with UTF-8-compatible terminals and terminal emulators, we should use the actual letter μ instead of an ASCII approximation.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=704787>

===== Changes in man-pages-3.52 =====

Released: 2013-07-04, Christchurch

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

perf_event_open.2

Vince Weaver

Add PERF_IOC_FLAG_GROUP documentation

The perf_event_open() ENABLE/DISABLE/RESET ioctls can take an argument, PERF_IOC_FLAG_GROUP. This wasn't documented at all until about a year ago (despite the support being there from the beginning) so I missed this when initially writing the man page.

socket.7

Pavel Emelyanov, Michael Kerrisk

Document SO_PEEK_OFF option

Since Linux 3.4 there appeared an ability to specify the offset in bytes from which the data will be MSG_PEEK-ed. Describe this socket option in the socket(7) page, where all the other socket options are described.

Global changes

Various pages

Michael Kerrisk

Convert inline formatting (`\fX...\fP`) to dot-directive formatting

readdir.2

asprintf.

getline.3

getlogin.3

pthread_setname_np.3

readdir.3

strerror.3

Michael Kerrisk [Jon Grant]

Clarify that terminating null byte is `'\0'`

Changes to individual pages

execve.2

Peter LaDow

Add `envp` to the Linux notes about NULL pointers

During the review of static analysis results, we discovered a functional, but non-portable, use of `execve()`. For example:

```
char *cmd[] = { "/path/to/some/file", NULL };
execve(cmd[0], cmd, NULL);
```

The call succeeds. Yet, the static analysis tool (rightly) pointed out that `envp` could be dereferenced. But digging into `glibc` and the kernel, it appears that like `argv`, `envp` when NULL is treated as if it were an empty list.

So, to clear things up, I'm submitting this patch to update the man page to indicate that `envp` is treated like `argv`.

fallocate.2

Michael Kerrisk

RETURN VALUE: mention that `'errno'` is set on error

io_setup.2

Cyril Hrubis [Jeff Moyer]

Clarify the `nr_events` parameter

Currently the `io_setup.2` man page describes what the kernel really does, i.e., that the resulting context may be able to hold more than the `'nr_event's` operations because the memory allocated in kernel is rounded to be multiple of page size.

It is better not to expose this implementation detail and

simply state that the resulting context is suitable for
'nr_events' operations.

perf_event_open.2

Vince Weaver

Clarify the perf_event_open() wakeup_events/wakeup_watermark fields

Clarify the perf_event_open() wakeup_events/wakeup_watermark fields a bit, based on info from kernel commit cfeb1d90a1b1.

Vince Weaver

Update to match the Linux 3.10 release

This patch updates the perf_event_open() documentation to include new interfaces added in the 3.10 kernel.

It also documents a few [To be documented] instances left over from the 3.7 kernel.

Vince Weaver

Small correction to description of 'flags' argument

prctl.2

Michael Kerrisk

Note equivalents of PR_SET_NAME

pthread_setname_np() and pthread_getname_np() and /proc/self/task/TID/comm provide access to the same attribute.

pread.2

Michael Kerrisk []

pread() and pwrite() are especially useful in multithreaded applications

recv.2

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

semctl.2

Michael Kerrisk [Simone Piccardi]

'sem_nsems' is 'unsigned long' since Linux 2.4

shmget.2

Michael Kerrisk

Rewrite RETURN VALUE and mention that 'errno' is set on error

sigaction.2

Michael Kerrisk [Brian Norris]

RETURN VALUE: mention that 'errno' is set on error

signal.2

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

sigpending.2

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

sigprocmask.2

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

sigsuspend.2

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

syscall.2

Mike Frysinger

Document s390/s390x calling convention

a64l.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function l64a() is not thread safe.

abs.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions abs(), labs(), llabs() and imaxabs() are thread-safe.

aio_error.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function aio_error() is thread safe.

aio_return.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function aio_return() is thread safe.

alloca.3

Adrian Bunk

Correct information on getting non-inlined version with gcc+glibc

- remove the incorrect information that -fno-builtin would help
- add -std=c11 to the list of strict options
- emphasize more that both the gcc option and not including alloca.h are needed
- add the #ifdef from the glibc alloca.h to make the situation clearer

bindresvport.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

Before glibc 2.17, bindresvport() is not thread-safe.

Since glibc 2.17, it is thread-safe, the patch can refer to URL:

<http://sourceware.org/git/?p=glibc.git;a=commit;h=f6da27e53695ad1cc0e2a9490358decbbdff5e5>

canonicalize_file_name.3

Michael Kerrisk

Put CONFORMING TO section in right location

catgets.3

Michael Kerrisk [Jon Grant]

Clarify that null byte is '\0'

ceil.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions ceil(), ceilf() and ceill() are thread safe.

cimag.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions cimag(), cimagf() and cimagl() are thread safe.

clock_getcpuclockid.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function clock_getcpuclockid() is thread safe.

conj.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions conj(), conjf() and conjl() are thread safe.

crypt.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function crypt() is not thread safe.

ctermid.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function ctermid() is thread safe with exceptions.

dirfd.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

drand48.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions drand48(), erand48(), lrand48(), nrand48(), mrand48(), jrand48(), srand48(), seed48() and lcong48() are not thread safe.

ecvt.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions ecvt() and fcvt() return a string located in a static buffer which is overwritten by the next call to the functions, so they are not thread-safe.

encrypt.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions encrypt() and setkey() are not thread safe.

ether_aton.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions ether_aton() and ether_ntoa() are not thread safe.

fcloseall.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function fcloseall() is not thread safe.

ferror.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions ferror(), clearerr(), feof() and fileno() are thread safe.

fgetgrent.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

fgetpwent.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

fgetwc.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

fmtmsg.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

Before glibc 2.16, fmtmsg() is not thread-safe.

Since glibc 2.16, it is thread-safe, the patch can refer to URL:

<http://sourceware.org/git/?p=glibc.git;a=commit;h=7724defcf8873116fe4efab256596861eef21a94>

fputwc.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

getdate.3

Peng Haitao

ATTRIBUTES: Note functions that are and aren't thread-safe

getgrent.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function getgrent() is not thread safe.

getgrnam.3

Peng Haitao

ATTRIBUTES: Note functions that are and aren't thread-safe

getline.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

getlogin.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function getlogin() is not thread safe.

The function cuserid() is thread-safe with exceptions.

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

getpass.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

getpwent.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function getpwent() is not thread safe.

getpwnam.3

Peng Haitao

ATTRIBUTES: Note functions that are and aren't thread-safe

getspnam.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

gettyent.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

getusershell.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions getusershell(), setusershell() and endusershell() are not thread safe.

getutent.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

hsearch.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

hsearch.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions hsearch(), hcreate() and hdestroy() are not thread-safe.

localeconv.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The function localeconv() returns a pointer to a structure which might be overwritten by subsequent calls to localeconv() or by calls to setlocale(), so it is not thread-safe.

Peng Haitao

Add RETURN VALUE section

malloc_info.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

mblen.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function mblen() is not thread safe.

mbrlen.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function `mbrlen()` is thread safe with exceptions.

`mbrtowc.3`

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function `mbrtowc()` is thread safe with exceptions.

`mktemp.3`

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

`modf.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `modf()`, `modff()` and `modfl()` are thread safe.

`popen.3`

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

`pthread_attr_setinheritsched.3`

Michael Kerrisk

Note the scheduling attributes affected by this function

`pthread_attr_setschedparam.3`

`pthread_attr_setschedpolicy.3`

`pthread_attr_setscope.3`

Michael Kerrisk [Manuel Traut, Siddhesh Poyarekar]

The inherit-scheduler attribute must be set to `PTHREAD_EXPLICIT_SCHED`

In order for the attributes set by these functions to have an effect, the caller must use `pthread_attr_setinheritsched(3)` to set the inherit-scheduler attribute of the attributes object to `PTHREAD_EXPLICIT_SCHED`.

`ptsname.3`

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function `ptsname()` is not thread safe.

`putenv.3`

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

`putpwent.3`

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

qecvt.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe
The functions qecvt() and qfcvt() are not thread-safe.

random.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

Michael Kerrisk

Add EINVAL error for setstate()

Michael Kerrisk

BUGS: initState() does not return NULL on error

http://sourceware.org/bugzilla/show_bug.cgi?id=15380

random_r.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

readdir.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The data returned by readdir() may be overwritten by subsequent calls to readdir() for the same directory stream, so it is not thread-safe.

re_comp.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions re_comp() and re_exec() are not thread safe.

rexec.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions rexec() and rexec_af() are not thread safe.

round.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions round(), roundf() and roundl() are thread safe.

scalbn.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions scalbn(), scalbnf(), scalbnl(), scalbln(), scalblnf() and scalblnl() are thread safe.

scandir.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

siginterrupt.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

signbit.3

Peng Haitao

ATTRIBUTES: Note macro that is thread-safe

The macro signbit() is thread safe.

sigsetops.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

stdio_ext.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions __fbufsize(), __fpending(), __fpurge() and __fsetlocking() are not thread safe.

strdup.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

strerror.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function strerror() is not thread safe.

strftime.3

Michael Kerrisk

Clarify details of return value

Michael Kerrisk

BUGS: 'errno' is not set if the result string would exceed 'max' bytes

strtok.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function strtok() is not thread safe.

Michael Kerrisk [Georg Sauthoff]

Add more detail on the operation of strtok()

Add a number of missing details on the operation of strtok()

tempnam.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

timegm.3

Jérémie Galarneau

copy the string returned by getenv()

The example of a portable version of timegm() uses the string returned by getenv() after calling setenv() on the same environment variable. The tz string may be invalid as per getenv.3:

"The string pointed to by the return value of getenv() may be statically allocated, and can be modified by a subsequent call to getenv(), putenv(3), setenv(3), or unsetenv(3)."

tmpnam.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function tmpnam() is thread safe with exceptions.

trunc.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions trunc(), truncf() and trunci() are thread safe.

ttyname.3

Michael Kerrisk

ATTRIBUTES: Note functions that are and aren't thread-safe

ttyslot.3

Michael Kerrisk

ATTRIBUTES: Note functions that are not thread-safe

usleep.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

wcsdup.3

Michael Kerrisk

RETURN VALUE: mention that 'errno' is set on error

core.5

Michael Kerrisk

Implicitly adding the PID to a core filename was dropped in 2.6.27

proc.5

Michael Kerrisk

Document /proc/[pid]/fd/ anon_inode symlinks

Mike Frysinger

Document /proc/[pid]/fd/ symlinks a bit more
Describe the type:[inode] syntax used in this dir

bootparam.7

Michael Kerrisk [Dan Jacobson]

Remove outdated text on LILO and LoadLin

Strike the discussion of LILO and LoadLin, which
are long obsolete, and make a brief mention of GRUB.

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=604019>

Regid

Remove mention of the deprecated rdev(8)

The deprecated rdev(8) command was removed from util-linux in 2010.

See <https://git.kernel.org/?p=utils/util-linux/util->

[linux.git;a=commit;h=a3e40c14651fccf18e7954f081e601389baefe3f0](https://git.kernel.org/?p=utils/util-linux/util-linux.git;a=commit;h=a3e40c14651fccf18e7954f081e601389baefe3f0)

Andrea Remondini

Document the 'resume' boot parameter

inotify.7

Michael Kerrisk [Jon Grant]

Clarify that null byte is '\0'

iso_8859-2.7

Eric S. Raymond

Remove incorrect reference to nonexistent groff glyph `\[shc]`

The reference incorrectly attempted to duplicate an
actual soft hyphen (hex 0xad) just before it in the file.

man-pages.7

Peng Haitao

Add description of "ATTRIBUTES"

"ATTRIBUTES" section can mention thread safety,
cancellation safety, and `async-cancel-safety`.

socket.7

Michael Kerrisk

Note that 'optval' for socket options is an 'int' in most cases

tcp.7

Michael Kerrisk

Note that 'optval' for socket options is an 'int' in most cases

udp.7

Michael Kerrisk

Note that 'optval' for socket options is an 'int' in most cases

==== Changes in man-pages-3.53 =====

Released: 2013-07-31, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

restart_syscall.2

Michael Kerrisk

New page for restart_syscall(2) system call

Newly documented interfaces in existing pages

fchownat.2

Michael Kerrisk

Document AT_EMPTY_PATH

fstatat.2

Michael Kerrisk

Document AT_EMPTY_PATH

linkat.2

Michael Kerrisk

Document AT_EMPTY_PATH

open.2

Michael Kerrisk [Al Viro]

Document O_PATH

See also https://bugzilla.redhat.com/show_bug.cgi?id=885740

Changes to individual pages

clock_nanosleep.2

futex.2

nanosleep.2

poll.2

sigaction.2

sigreturn.2

signal.7

Michael Kerrisk

SEE ALSO: add restart_syscall(2)

open.2

Michael Kerrisk [Geoffrey Thomas]

Remove warning that O_DIRECTORY is only for use with opendir(3)

O_DIRECTORY can also be used with, for example, O_PATH.

perf_event_open.2

Vince Weaver

Improve PERF_SAMPLE_BRANCH_STACK documentation

Vince Weaver

Fix indentation of the MMAP layout section

The indentation of the MMAP layout section wasn't quite right.

I think this improves things but I admit I'm not an expert at the

low-level indentation directives.

Vince Weaver

Update PERF_IOC_FLAG_GROUP info

It turns out PERF_IOC_FLAG_GROUP was broken from 75f937f24bd9

(in Linux 2.6.31, the initial perf_event release) until

724b6daa1 (Linux 3.4).

I've done some extensive kernel source code digging plus running tests of various kernels and I hope the info presented is accurate now.

(Patch edited somewhat by mtk.)

Vince Weaver

Improve sysfs files documentation

This improves the documentation of the various perf_event_open()-related sysfs files.

ptrace.2

Denys Vlasenko [Oleg Nesterov, Dmitry V. Levin]

If SEIZE was used, initial auto-attach stop is EVENT_STOP

For every PTRACE_O_TRACEfoo option, mention that old-style SIGSTOP is replaced by PTRACE_EVENT_STOP if PTRACE_SEIZE attach was used.

Mention the same thing again in the description of PTRACE_EVENT_STOP.

Denys Vlasenko [Oleg Nesterov, Dmitry V. Levin]

Mention that PTRACE_PEEK* libc API and kernel API are different

Denys Vlasenko [Oleg Nesterov, Dmitry V. Levin]

Clarify PTRACE_INTERRUPT, PTRACE_LISTEN, and group-stop behavior

readlink.2

Michael Kerrisk

Document use of empty 'pathname' argument

Michael Kerrisk

Change error check in example program from "< 0" to "== -1"

Chuck Coffing

Fix possible race condition in readlink.2 example

I noticed that the example in the readlink.2 man pages does error checking for a race condition that would cause the value of the symbolic link to get larger. However, it doesn't handle the opposite case, in which the value gets shorter. (The NULL terminator is always set at the old, longer offset.) This could cause the program to operate on uninitialized data.

setpgid.2

Michael Kerrisk [Graud]

s/SIGTSTP/SIGTTIN/ when discussing reads from terminal

See https://bugzilla.kernel.org/show_bug.cgi?id=60504

clog2.3

Michael Kerrisk

Note that these functions are still not present in glibc 2.17

dirfd.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function dirfd() is thread safe.

div.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `div()`, `ldiv()`, `lldiv()` and `imaxdiv()` are thread safe.

fabs.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `fabs()`, `fabsf()` and `fabsl()` are thread safe.

fdim.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `fdim()`, `fdimf()` and `fdiml()` are thread safe.

fflush.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function `fflush()` is thread safe.

finite.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `finite()`, `finitef()`, `finitel()`, `isinf()`, `isinff()`, `isinfl()`, `isnan()`, `isnanf()` and `isnansl()` are thread safe.

flockfile.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `flockfile()`, `ftrylockfile()` and `funlockfile()` are thread safe.

floor.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `floor()`, `floorf()` and `floorl()` are thread safe.

resolv.conf.5

Simon Paillard

Explain how to set empty domain
See <http://bugs.debian.org/463575>

capabilities.7

Michael Kerrisk

Add `open_by_handle_at(2)` under `CAP_DAC_READ_SEARCH`

inotify.7

Michael Kerrisk [Felix Schulte]

Clarify description of `IN_MOVED_FROM` and `IN_MOVED_TO`

man-pages.7

Michael Kerrisk

DESCRIPTION should note versions for new interface features or behavior

udp.7

Benjamin Poirier

Add missing #include directive

Using the UDP_CORK socket option documented in udp.7 requires including <netinet/udp.h>.

ld.so.8

Michael Kerrisk

Rework rpath token expansion text

Michael Kerrisk

Describe \$PLATFORM rpath token

Michael Kerrisk

Describe \$LIB rpath token

Michael Kerrisk

Document LD_BIND_NOT

Michael Kerrisk [Simon Paillard]

Add reference to pthreads(7) in discussion of LD_ASSUME_KERNEL

==== Changes in man-pages-3.54 =====

Released: 2013-09-17, Munich

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

ioctl_list.2

Zsbán Ambrus

Document FAT_IOCTL_GET_ATTRIBUTES

The attached patch adds four ioctls from linux/msdos_fs.h to the
ioctl_list(2) manpage.

The ioctl FAT_IOCTL_GET_ATTRIBUTES reads FAT attributes of a
file a mounted vfat file system. I tested this on Linux
2.6.33, an example script can be found at
http://www.perlmonks.com/?node_id=832623

Global changes

Various pages

Michael Kerrisk

Global fix: s/file system/filesystem/

Notwithstanding 24d01c530c5a3f75217543d02bf6712395e5f90c,

"filesystem" is the form used by the great majority of man pages outside the man-pages project and in a number of other sources, so let's go with that.

Changes to individual pages

access.2

J. Bruce Fields

Fix outdated NFS information

Note that NFS versions since version 3 support an "access" call so that the client doesn't have to guess permissions or ID mapping on its own.

(See RFC 1813 sections 1.7 and 3.3.4.)

adjtimex.2

Michael Kerrisk

SEE ALSO: Add adjtimex(8)

clock_getres.2

Michael Kerrisk [Rodrigo Campos]

Note circumstances in which "SMP" note applies.

Michael Kerrisk

Add kernel version for CLOCK_*_CPUTIME_ID

CLOCK_PROCESS_CPUTIME_ID and CLOCK_THREAD_CPUTIME_ID appeared in 2.6.12.

Michael Kerrisk

Add VERSIONS section

futex.2

Michael Kerrisk

The 'timeout' can be rounded upwards by clock granularity and also overrun

kill.2

Michael Kerrisk

Small improvements to text on historical rules for permissions

nfsservctl.2

Michael Kerrisk

Note commands that were only in Linux 2.4.x and earlier

open.2

Robert Harris

Add mmap(2) to list of calls that fail when given an O_PATH descriptor

Doug Goldstein

Add EINVAL to errors list

EINVAL can be returned by open(2) when the underlying filesystem doesn't support O_DIRECT. It is documented in the NOTES section but this patch adds it to the list of possible errors.

perf_event_open.2

Vince Weaver

PERF_SAMPLE_BRANCH_STACK updates

This started out as just adding the new perf_event_open features from Linux 3.11 (which was the addition of transactional memory defines for PERF_SAMPLE_BRANCH_STACK samples) but turned into a general cleanup of the PERF_SAMPLE_BRANCH_STACK documentation.

The main clarification is that at least one of the non-privilege values must be set or else perf_event_open() will return an EINVAL error.

Michael Kerrisk

Reorder text describing fields of 'perf_event_header' structure
Place the fields with the shorter descriptions first, to make the information easier to read.

poll.2

Michael Kerrisk

Clarify wording of 'timeout' as a "minimum" interval

sched_setaffinity.2

Michael Kerrisk [Christos Tsopokis]

Clarify that these system calls affect a per-thread attribute

sched_setparam.2

Michael Kerrisk

Clarify that this system call applies to threads (not processes)

sched_setscheduler.2

Michael Kerrisk

Clarify that this system call applies to threads (not processes)

select.2

Michael Kerrisk [G.raud]

Clarify wording of 'timeout' as a "minimum" interval

setfsuid.2

Michael Kerrisk [Oleg Nesterov]

Clarify description of return value

More clearly describe the weirdness in the return value of this system call, and note the problems it creates in BUGS

Michael Kerrisk

Correct header file in SYNOPSIS

Michael Kerrisk

Refer to setsuid(2) for an explanation of why setfsgid() is obsolete

Michael Kerrisk

Wording improvements

setsuid.2

Michael Kerrisk [Oleg Nesterov]

Clarify description of return value

More clearly describe the weirdness in the return value of this system call, and note the problems it creates in BUGS

Michael Kerrisk [Chen Gang]

Clarify historical details and note that setsuid() is obsolete

Michael Kerrisk

Wording improvements

Michael Kerrisk

Correct header file in SYNOPSIS

sigwaitinfo.2

Michael Kerrisk

Clarify wording of 'timeout' as a "minimum" interval

syscall.2

Johan Erlandsson

Add missing argument in example

Johan Erlandsson

Correct registers for arm/EABI

Registers was off by one.

Reference:

<http://www.arm.linux.org.uk/developer/patches/viewpatch.php?id=3105/4>

See also:

<http://peterdn.com/post/e28098Hello-World!e28099-in-ARM-assembly.aspx>

<https://wiki.debian.org/ArmEabiPort>

http://en.wikipedia.org/wiki/Calling_convention#ARM

wait.2

Michael Kerrisk [Hannes Landeholm]

Add details on the fifth argument provided by raw waitid() system call

See https://bugzilla.kernel.org/show_bug.cgi?id=60744

clock.3

Michael Kerrisk

clock() switched from using times(2) to clock_gettime() in glibc 2.18

drand48_r.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions drand48_r(), erand48_r(), lrand48_r(),

`nrand48_r()`, `mrnd48_r()`, `jrnd48_r()`, `srnd48_r()`, `seed48_r()`,
and `lcong48_r()` are thread safe.

`fma.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `fma()`, `fmaf()` and `fmal()` are thread safe.

`fmax.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `fmax()`, `fmaxf()` and `fmaxl()` are thread safe.

`fmin.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `fmin()`, `fminf()` and `fminl()` are thread safe.

`fpclassify.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `fpclassify()`, `isfinite()`, `isnormal()`, `isnan()`, and
`isinf()` are thread safe.

`frexp.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `frexp()`, `frexpf()` and `frexpl()` are thread safe.

`gethostbyname.3`

Michael Kerrisk [Jon Grant]

`gai_strerror()` is the modern replacement for `herror()` and `hstrerror()`

Michael Kerrisk

Update feature test macro requirements for `herror()` and `hstrerror()`

Michael Kerrisk

Add feature test macro requirements for `h_errno`

`ilogb.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `ilogb()`, `ilogbf()` and `ilogbl()` are thread safe.

`ldexp.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `ldexp()`, `ldexpf()` and `ldexpl()` are thread safe.

`lrint.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions lrint(), lrintf(), lrintl(), llrint(), llrintf(), and llrintl() are thread safe.

lround.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions lround(), lroundf(), lroundl(), llround(), llroundf() and llroundl() are thread safe.

lseek64.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function lseek64() is thread safe.

mbsinit.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function mbsinit() is thread safe.

nextafter.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions nextafter(), nextafterf(), nextafterl(), nexttoward(), nexttowardf() and nexttowardl() are thread safe.

posix_memalign.3

Michael Kerrisk [Will Newton]

'errno' is indeterminate after a call to posix_memalign()

Michael Kerrisk [Will Newton]

Clarify wording on "return value" when size==0

printf.3

Christopher Hall

Correctly describe the meaning of a negative precision

The printf(3) manpage says that a negative precision is taken to be zero, whereas printf(3p) says that a negative precision is taken as if the precision were omitted. glibc agrees with the latter (POSIX) specification.

Test code:

```
printf("%f\n",42.0); // "42.000000"  
printf("%. *f\n",0,42.0); // "42"  
printf("%. *f\n",-1,42.0); // "42.000000"
```

This patch corrects the explanation to match what actually happens.

rewinddir.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function rewinddir() is thread safe.

rint.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions nearbyint(), nearbyintf(), nearbyintl(), rint(),
rintf() and rintl() are thread safe.

seekdir.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function seekdir() is thread safe.

telldir.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function telldir() is thread safe.

wctomb.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe
The function wctomb() is not thread safe.

wavelan.4

Michael Kerrisk [Elie De Brauwert]

This driver disappeared in 2.56.35

dir_colors.5

Michael Kerrisk [Stas]

Add various synonyms

See <http://bugs.debian.org/553477>

Simon Paillard [Stas]

Add keywords SUID, SGID, STICKY, STICKY_OTHER_WRITABLE, OTHER_WRITABLE

See <http://bugs.debian.org/553477>

See ls.c and dircolors.c in coreutils

proc.5

Peter Schiffer

Document /proc/[pid]/io file

Attempt to document fields in the /proc/[pid]/io file, based on
the Documentation/filesystems/proc.txt. The text will probably
need some grammar corrections.

Michael Kerrisk [Marko Myllynen]

/proc/sys/fs/inode-max went away in Linux 2.4

Also, the 'preshrink' field in /proc/sys/fs/inode-state became a dummy value in Linux 2.4.

See https://bugzilla.kernel.org/show_bug.cgi?id=60836

Michael Kerrisk [A. Costa]

Note block size used by /proc/partitions

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=666972>

Michael Kerrisk

Add rationale on drop_caches and note that it can hurt performance

See also <http://lwn.net/Articles/562211/>

bootparam.7

Michael Kerrisk [Eugen Dedu]

Remove "lilo" entries from SEE ALSO

See <http://bugs.debian.org/604019>

inotify.7

Michael Kerrisk

SEE ALSO: add inotifywait(1) and inotifywatch(1)

ip.7

Simon Paillard

IP_MULTICAST_IF setsockopt recognizes struct mreq (compatibility)

Kernel added compatibility only recently in

3a084ddb4bf299a6e898a9a07c89f3917f0713f7

See: <http://bugs.debian.org/607979>

standards.7

Michael Kerrisk

Add mention of SUSv4-TC1 (POSIX.1-2013)

==== Changes in man-pages-3.55 =====

Released: 2013-12-12, Christchurch

Contributors

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Apologies if I missed anyone!

Global changes

assert.3

assert_perror.3

rexec.3

rpc.3

Michael Kerrisk [Jon Grant]

Reword a sentence to use more gender-neutral language

Changes to individual pages

execve.2

Michael Kerrisk

'arg...' for interpreter scripts starts with argv[1]

fallocate.2

Christoph Hellwig

Clarify the zeroing behavior

fallocate() zeroes only space that did not previously contain
data, but leaves existing data untouched.

futex.2

Rodrigo Campos

Fix link to Rusty's futex example library

When I asked to webmaster@kernel.org, Konstantin Ryabitsev answered that the ".nl." is "an obsolete scheme and really should be changed to just ftp.kernel.org".

getgroups.2

Michael Kerrisk

Note that NGROUPS_MAX is defined in <limits.h>

Michael Kerrisk

Clarify that `sysconf(_SC_NGROUPS_MAX)` is a run-time technique

Michael Kerrisk

Document `/proc/sys/kernel/ngroups_max`

ioctl.2

Michael Kerrisk [KOSAKI Motohiro, David Gibson]

'request' argument is typed as 'unsigned long' in glibc

See https://bugzilla.kernel.org/show_bug.cgi?id=42705

perf_event_open.2

Vince Weaver

Linux 3.12 rdpmc/mmap

It turns out that the `perf_event` mmap page `rdpmc/time` setting was broken, dating back to the introduction of the feature. Due to a mistake with a bitfield, two different values mapped to the same feature bit.

A new somewhat backwards compatible interface was introduced in Linux 3.12. A much longer report on the issue can be found here:

<https://lwn.net/Articles/567894/>

Vince Weaver

Linux 3.12 adds `PERF_SAMPLE_IDENTIFIER`

A new `PERF_SAMPLE_IDENTIFIER` sample type was added in Linux 3.12.

Vince Weaver

E2BIG documentation

The following documents the E2BIG error return for `perf_event_open()`.

I actually ran into this error the hard way and it took me half a day to figure out why my `->size` value was changing.

Vince Weaver

Linux 3.12 adds `PERF_EVENT_IOC_ID`

A new `perf_event` related `ioctl`, `PERF_EVENT_IOC_ID`, was added in Linux 3.12.

Vince Weaver

`PERF_COUNT_SW_DUMMY` support

Support for the `PERF_COUNT_SW_DUMMY` event type was added in

Linux 3.12.

Vince Weaver [Andreas Sandberg]

PERF_EVENT_IOC_PERIOD update

The PERF_EVENT_IOC_PERIOD ioctl was broken until 2.6.36,
and it turns out that the ARM architecture has some
differing behavior too.

pipe.2

Trevor Bramwell

Fix error in example program

poll.2

Michael Kerrisk [Paolo Bonzini]

Clarify meaning of events==0

events==0 does not mean that revents is always returned as
zero. The "output only" events (POLLHUP, POLLERR, POLLNVAL)
can still be returned.

See https://bugzilla.kernel.org/show_bug.cgi?id=61911

readlink.2

Michael Kerrisk [Yuanhang Zheng]

Fix typo in error message in example program

recv.2

Michael Kerrisk

Remove out-of-date statement that UNIX domain does not support MSG_TRUNC
Should have removed that sentence as part of
commit a25601b48b822eb1882ae336574b8d062a17e564

sched_get_priority_max.2

Michael Kerrisk

Add SCHED_IDLE to discussion

send.2

Michael Kerrisk

RETURN VALUE: these calls return number of bytes (not characters) sent

setreuid.2

Michael Kerrisk

Small clarification to description of when saved set-user-ID is set

sigpending.2

Michael Kerrisk

Note treatment of signals that are blocked *and* ignored

stat.2

Michael Kerrisk

Note filesystem support for nanosecond timestamps

Add some detail on which native filesystems do and don't support nanosecond timestamps.

Michael Kerrisk

Cosmetic reworking of timestamp discussion in NOTES

Michael Kerrisk [Yang Yang]

Update discussion of nanosecond timestamps

The existing text describes the timestamp fields as 'time_t' and delegates discussion of nanosecond timestamps under NOTES. Nanosecond timestamps have been around for a while now, and are in POSIX.1-2008, so reverse the orientation of the discussion, putting the nanosecond fields into DESCRIPTION and detailing the historical situation under NOTES.

symlink.2

Michael Kerrisk

Further fine tuning of argument names

Follow-up to f2ae6dde0c68448bec986d12fe32268a2c98bfd9

See https://sourceware.org/bugzilla/show_bug.cgi?id=16073

Michael Kerrisk [Fabrice Bauzac]

Give arguments of symlink() more meaningful names

adjtime.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function adjtime() is thread safe.

alloca.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function alloca() is thread safe.

asinh.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions asinh(), asinhf() and asinhl() are thread safe.

atan.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions atan(), atanf() and atanl() are thread safe.

atof.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function atof() is thread safe with exceptions.

atoi.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions atoi(), atol() and atoll() are thread safe with exceptions.

bcmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function bcmp() is thread safe.

bcopy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function bcopy() is thread safe.

bsd_signal.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function bsd_signal() is thread safe.

bzero.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function bzero() is thread safe.

cbrt.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions cbrt(), cbrtf() and cbrtl() are thread safe.

copysign.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions copysign(), copysignf() and copysignl() are thread safe.

cos.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions cos(), cosf() and cosl() are thread safe.

cproj.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions cproj(), cprojf() and cprojl() are thread safe.

creal.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `creal()`, `crealf()` and `creall()` are thread safe.

daemon.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function `daemon()` is thread safe.

des_crypt.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `ecb_crypt()`, `cbc_crypt()` and `des_setparity()` are thread safe.

difftime.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function `difftime()` is thread safe.

dysize.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function `dysize()` is thread safe.

erf.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `erf()`, `erff()` and `erfl()` are thread safe.

erfc.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `erfc()`, `erfcf()` and `erfc1()` are thread safe.

euidaccess.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `euidaccess()` and `eaccess()` are thread safe.

expm1.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions `expm1()`, `expm1f()` and `expm1l()` are thread safe.

fexecve.3

Michael Kerrisk

POSIX.1-2008 specifies `fexecve()`

Michael Kerrisk

Explain the use and rationale of `fexecve()`

ftime.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `ftime()` is thread safe.

ftok.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `ftok()` is thread safe.

ftw.3

Michael Kerrisk

`nftw()` visits directories with `FTW_D` if `FTW_DEPTH` was not specified

Michael Kerrisk

Explain probable cause of `FTW_NS`

futimes.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `futimes()` and `lutimes()` are thread safe.

getaddrinfo.3

Michael Kerrisk

Explain one use case for `AI_ADDRCONFIG`

Michael Kerrisk

Highlight difference in `ai_flags` when `hints==NULL`

NOTES already described how `glibc` differs from `POSIX`.

Add a pointer to that text from the point in `DESCRIPTION` where `hints==NULL` is discussed.

kcmp.3

Shawn Landden

Reword slightly awkward section

malloc.3

Greg Price

Scale back promises of alignment

It's not true that the return value is suitably aligned for "any variable"; for example, it's unsuitable for a variable like

```
float *x __attribute__((__vector_size__(32)));
```

which requires 32-byte alignment. Types like this are defined in

<`avxintrin.h`>, and with 16-byte alignment in <`emmintrin.h`> and

<`xmmintrin.h`>, so the application programmer need not even know

that a `vector_size` attribute has been applied.

On an x86 architecture, a program that loads from or stores to a

pointer with this type derived from malloc can crash because GCC generates an aligned load/store, like MOVDQA.

The C99 standard (TC3, as of N1256) does say the return value is suitably aligned for "any type of object". The C11 standard (as of N1570) revises this to any type with "fundamental alignment", which means an alignment "supported by the implementation in all contexts", which I suppose tautologically includes aligning malloc/realloc return values.

The actual behavior of current glibc malloc is to align to the greater of $2 * \text{sizeof}(\text{size}_t)$ and `__alignof__` (long double), which may be one bit greater than this commit promises.

mq_receive.3

Michael Kerrisk [janh]

`msg_len` must be greater than *or equal to* `mq_msgsize`

See https://bugzilla.kernel.org/show_bug.cgi?id=64571

setenv.3

Michael Kerrisk

Clarify that `setenv()` returns success in the `overwrite==0` case

sigsetops.3

Michael Kerrisk [Robert P. J. Day]

Add 'const' to `sigisemptyset()`, `sigorset()`, `sigandset()` declarations

Michael Kerrisk

Rework text describing `sigisemptyset()`, `sigorset()`, and `sigandset()`

statvfs.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `statvfs()` and `fstatvfs()` are thread safe.

stdarg.3

Peng Haitao

ATTRIBUTES: Note macros that are thread-safe

The macros `va_start()`, `va_arg()`, `va_end()` and `va_copy()` are thread safe.

termios.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `tcgetattr()`, `tcsetattr()`, `tcsendbreak()`, `tcdrain()`, `tcflush()`, `tcflow()`, `cfmakeraw()`, `cfgetispeed()`, `cfgetospeed()`, `cfsetispeed()`, `cfsetospeed()` and `cfsetspeed()` are thread safe.

ungetwc.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function ungetwc() is thread safe.

unlockpt.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function unlockpt() is thread safe.

usleep.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function usleep() is thread safe.

wcpcpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wcpcpy() is thread safe.

wscasecmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function wscasecmp() is thread safe with exceptions.

wscat.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wscat() is thread safe.

wchr.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wchr() is thread safe.

wscmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wscmp() is thread safe.

wscopy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wscopy() is thread safe.

wscspn.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wscspn()` is thread safe.

`wcslen.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcslen()` is thread safe.

`wcsncasecmp.3`

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function `wcsncasecmp()` is thread safe with exceptions.

`wcsncat.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsncat()` is thread safe.

`wcsncmp.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsncmp()` is thread safe.

`wcsncpy.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsncpy()` is thread safe.

`wcsnlen.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsnlen()` is thread safe.

`wcspbrk.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcspbrk()` is thread safe.

`wcsrchr.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsrchr()` is thread safe.

`wcsspn.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `wcsspn()` is thread safe.

`wcsstr.3`

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wcsstr() is thread safe.

wcstoimax.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions wcstoimax() and wctoumax() are thread safe with exceptions.

wcstok.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wcstok() is thread safe.

wcswidth.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function wcswidth() is thread safe with exceptions.

wctrans.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function wctrans() is thread safe with exceptions.

wctype.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function wctype() is thread safe with exceptions.

wcwidth.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function wcwidth() is thread safe with exceptions.

wmemchr.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wmemchr() is thread safe.

wmemcmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wmemcmp() is thread safe.

wmemcpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wmemcpy() is thread safe.

wmemmove.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wmemmove() is thread safe.

wmemset.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function wmemset() is thread safe.

tty_ioctl.4

Michael Kerrisk [Liu Jiaming]

Note that 'arg' should be 0 in the usual case when using TIOCSCTTY

Michael Kerrisk

Rework text on root to discuss just in terms of capabilities

proc.5

Michael Kerrisk

Document /proc/sys/kernel/ngroups_max

capabilities.7

Michael Kerrisk

Fix 2 version numbers under "Effect of user ID changes on capabilities"

feature_test_macros.7

Michael Kerrisk

Add _ISOC11_SOURCE to example program

tcp.7

Michael Kerrisk

Fix (nontrivial) wordo in discussion of MSG_TRUNC
s/MSG_PEEK/MSG_TRUNC/

ld.so.8

Michael Kerrisk [Alfred Agrell]

Fix crufty wording in one sentence

==== Changes in man-pages-3.56 =====

Released: 2014-01-11, Christchurch

In memory of Doris Church (1939-2013)

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

fgetc.3
gets.3
David Malcolm

Split gets(3) to isolate unsafe gets(3) to a page on its own
Currently man3/gets.3 documents various safe I/O functions, along
with the toxic "gets" function.

At the risk of being melodramatic, this strikes me as akin to
storing rat poison in a food cabinet, in the same style of
packaging as the food, but with a post-it note on it saying
"see warnings below".

I think such "never use this" functions should be quarantined
into their own manpages, rather than listing them alongside
sane functions.

The attached patch does this for "gets", moving the documentation
of the good functions from man3/gets.3 into man3/fgetc.3,
updating the SO links in the relevant functions to point at the
latter.

It then rewrites man3/gets.3 to spell out that "gets" is toxic
and should never be used (with a link to CWE-242 for good
measure).

Michael Kerrisk [Andre Majorel]
Tweaks to David Malcolm's patch

vdso.7

Mike Frysinger
New page documenting the vDSO mapped into each process by the kernel

Newly documented interfaces in existing pages

reboot.2

Elie De Brauwer
Document LINUX_REBOOT_SW_SUSPEND

New and changed links

fgets.3

getc.3

getchar.3

ungetc.3

Michael Kerrisk
Adjust links to gets(3) to point to fgetc(3)

Global changes

Various pages

Michael Kerrisk

Global fix of "NULL pointer"

Change "NULL pointer" to "NULL" or null pointer".

POSIX uses the term "null pointer", not "NULL pointer".

Various pages

Michael Kerrisk

Stylistic changes to code example

For ease of reading, don't embed assignments inside if().

Various pages

Michael Kerrisk

Replace uses of "i.e.," in main text with "that is" or similar

Usual man-pages style is to use "i.e." only within
parenthetical expressions.

Various pages

Michael Kerrisk

Replace uses of "e.g." in main text with "for example" or similar

Usual man-pages style is to use "e.g." only within
parenthetical expressions.

Various pages

Michael Kerrisk

Add "Program source" subheading under EXAMPLE

Various pages

Michael Kerrisk

Add "static" to global variables and functions in example program

Changes to individual pages

clock_getres.2

Michael Kerrisk [Nadav Har'El]

Improve description of CLOCK_PROCESS_CPUTIME_ID

See https://bugzilla.kernel.org/show_bug.cgi?id=67291

close.2

Michael Kerrisk [P?draig Brady]

Note that errors from close() should be used only for diagnosis

In particular, retrying after EINTR is a bad idea.

See <http://austingroupbugs.net/view.php?id=529>

See <http://thread.gmane.org/gmane.comp.lib.glibc.alpha/37702>

Subject: [RFC][BZ #14627] Make linux close errno to EINPROGRESS
when interrupted in signal.

execve.2

Michael Kerrisk [Marco Dione]

Add further cases to EFAULT error

See https://sourceware.org/bugzilla/show_bug.cgi?id=16402

perf_event_open.2

Vince Weaver [Sudhanshu Goswami]

Clarify issues with the disabled bit

Clarify the perf_event_open behavior with respect to the disabled
bit and creating event groups.

Vince Weaver [Sudhanshu Goswami]

Clarify issues with the exclusive bit

Warn that using the perf_event_open "exclusive" bit, while
it might seem like a good idea, might lead to all 0 results
in some common usage cases.

reboot.2

Elie De Brauwer

Mention RB_POWER_OFF

The manpage did not mention RB_POWER_OFF which is the glibc
symbolic name for LINUX_REBOOT_CMD_POWER_OFF.

```
$ cd /usr/include
```

```
$ cat x86_64-linux-gnu/sys/reboot.h | grep POWER_OFF
```

```
define RB_POWER_OFF    0x4321fedc
```

Elie De Brauwer

Add "Linux" to kernel version numbers

Michael Kerrisk

Add RB_SW_SUSPEND synonym

Michael Kerrisk

Add RB_KEXEC synonym

setpgid.2

Michael Kerrisk [Joseph S. Myers]

BSD getpgrp() and setpgrp() go away in glibc 2.19

socket.2

Michael Kerrisk [Dongsheng Song]

Remove crufty statement that AF_INET does not support SOCK_SEQPACKET
Linux AF_INET supports SOCK_SEQPACKET via SCTP.

syscall.2

Mike Frysinger

Fix ia64 registers

The original list of registers was created by confusing strace source code--this is for parsing legacy 32-bit code (which is dead and no one cares). Update the list to reflect native ia64 syscall interface.

syscall.2

syscalls.2

getauxval.3

Mike Frysinger

Add references to new vdso(7) page

utimensat.2

Michael Kerrisk

Small wording improvement for times!=NULL case

dlopen.3

Michael Kerrisk [Mike Frysinger]

Update remarks on cast needed when assigning dlsym() return value
POSIX.1-2013 eases life when casting the dlsym() return value to a
function pointer

Michael Kerrisk [Stephen Kell]

Fix description of dli_sname

See https://sourceware.org/bugzilla/show_bug.cgi?id=16262

getline.3

Michael Kerrisk [Luke Hutchison]

Correct description of how '*n' is used when '*lineptr' == NULL

See https://sourceware.org/bugzilla/show_bug.cgi?id=5468

Michael Kerrisk

Remove SEE ALSO reference to unsafe gets(3)

mcheck.3

Simon Paillard [Raphael Geissert]

typo in compiler flag

See <http://bugs.debian.org/732464>

mkstemp.3

Michael Kerrisk [Janne Blomqvist]

Better describe 'flags' that can be specified for mkostemp()

printf.3

Michael Kerrisk [Arif Zaman]

Fix memory leak in snprintf() example

See <http://stackoverflow.com/questions/19933479/snprintf-man-page-example-memory-leak>

pthread_kill.3

Michael Kerrisk [Mathieu Desnoyers]

POSIX.1-2008 removes ESRCH

POSIX.1-2001 mistakenly documented an ESRCH error, and
POSIX.1-2008 removes this error. Glibc does return
this error in cases where it can determine that a thread ID
is invalid, but equally, the use of an invalid thread ID
can cause a segmentation fault.

puts.3

Michael Kerrisk

SEE ALSO: replace reference to gets(3) with fgets(3)

scanf.3

Michael Kerrisk [Ondrej Bilka]

Improve discussion of obsolete 'a' dynamic allocation modifier

setjmp.3

Michael Kerrisk [Joseph S. Myers]

BSD setjmp() semantics go away in glibc 2.19

sigpause.3

Michael Kerrisk [Joseph S. Myers]

BSD sigpause() goes away in glibc 2.19

Michael Kerrisk

Correct feature text macro requirements

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sigpause() is thread safe.

sigqueue.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sigqueue() is thread safe.

sigwait.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sigwait() is thread safe.

sin.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions sin(), sinf() and sinl() are thread safe.

sincos.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions sincos(), sincosf() and sincosl() are thread safe.

string.3

Moritz 'Morty' Strübe

Add short description of the functions

It is helpful to have a short description about what the different functions in string.h do.

Michael Kerrisk

Fixes and enhancements to Moritz Strübe's patch

strptime.3

Michael Kerrisk [Mathieu Malaterre, Simon Paillard]

Add number ranges to comments in 'tm' structure

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=729570>

Michael Kerrisk

Point to ctime(3) for more details on 'tm' structure

Michael Kerrisk

Some rewording and reorganization

strsep.3

Michael Kerrisk

Clarify description

The use of "symbols" in the existing description is confusing; it's "bytes". Other fixes as well.

strspn.3

Michael Kerrisk [Mathieu Malaterre]

Improve description in NAME

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=723659>

strstr.3

Michael Kerrisk

Clarify RETURN VALUE: s/substring/located substring/

sysv_signal.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sysv_signal() is thread safe.

tan.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions tan(), tanf() and tanl() are thread safe.

tanh.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions tanh(), tanhf() and tanhl() are thread safe.

toascii.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function toascii() is thread safe.

toupper.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions
The functions toupper() and tolower() are thread safe with exceptions.

towctrans.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function towctrans() is thread safe.

tolower.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function tolower() is thread safe with exceptions.

towupper.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function towupper() is thread safe with exceptions.

ualarm.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function ualarm() is thread safe.

wcpncpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function wcpncpy() is thread safe.

proc.5

Michael Kerrisk [Sworddragon2]

Fix formula for CommitLimit under /proc/meminfo
See https://bugzilla.kernel.org/show_bug.cgi?id=60991

credentials.7

Michael Kerrisk

List APIs that operate on process groups

Michael Kerrisk

Add details on controlling terminal and foreground/background jobs

feature_test_macros.7

Michael Kerrisk

Document _DEFAULT_SOURCE

Michael Kerrisk [Joseph S. Myers]

From glibc 2.19, _BSD_SOURCE no longer causes __FAVOR_BSD

Starting with glibc 2.19, _BSD_SOURCE no longer causes BSD definitions to be favored in cases where standards conflict.

libc.7

Mike Frysinger

SEE ALSO: add various entries

man-pages.7

Michael Kerrisk [Mike Frysinger]

Add STYLE GUIDE section

Incorporate some of the existing material in the page into the STYLE GUIDE, and add a lot more material, mainly drawn from the "Global changes" sections in the release changelogs.

Michael Kerrisk

Add historical note on reason for use of American spelling

Michael Kerrisk [Mike Frysinger]

Various improvements to style guide

packet.7

Willem de Bruijn [Daniel Borkmann]

Document fanout, ring, and auxiliary options

This patch adds descriptions of the common packet socket options

PACKET_AUXDATA, PACKET_FANOUT, PACKET_RX_RING, PACKET_STATISTICS, PACKET_TX_RING

and the ring-specific options

PACKET_LOSS, PACKET_RESERVE, PACKET_TIMESTAMP, PACKET_VERSION

Michael Kerrisk

Add kernel version numbers for PACKET_VERSION and PACKET_TIMESTAMP

ld.so.8

Michael Kerrisk [Matthias Klose]

Default output file for D_DEBUG is stderr not stdout

See https://sourceware.org/bugzilla/show_bug.cgi?id=6874

==== Changes in man-pages-3.57 =====

Released: 2014-01-24, Munich

Contributors

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

msgop.2

Michael Kerrisk
Document MSG_COPY

open.2

Michael Kerrisk, Andy Lutomirski
Document O_TMPFILE
O_TMPFILE is new in Linux 3.11

perf_event_open.2

Vince Weaver [Andi Kleen]
PERF_SAMPLE_TRANSACTION support in Linux 3.13

The following patch adds descriptions of the new perf_event_open.2
PERF_SAMPLE_TRANSACTION sample type as added in Linux 3.13.

The descriptions are based on information provided by Andi Kleen,
both in the e-mail

[PATCH 1/6] perf, core: Add generic transaction flags v5

sent to the linux-kernel list as well as an e-mail

[PATCH] Document transaction flags in perf_event_open manpage

sent to the linux-man list.

The implementation is based heavily on the Intel Haswell
processor. Documentation can be found at this page:
<http://software.intel.com/en-us/blogs/2013/05/03/intelr-transactional-synchronization-extensions-intelr-tsx-profiling-with-linux-0>

as well as in section 18.11.5.1 of volume 3 of the
Intel 64 and IA-32 Architecture Software Developer's Manual.

ptrace.2

Andrey Vagin

Add description for PTRACE_PEEKSIGINFO

Retrieve signals without removing them from a queue.

Andrey Vagin

Add description for PTRACE_GETSIGMASK and PTRACE_SETSIGMASK

These two commands allow to examine and change mask of blocked
signals.

socket.7

Eliezer Tamir

Add description for SO_BUSY_POLL

Add description for the SO_BUSY_POLL socket option.

tcp.7

Michael Kerrisk [Jerry Chu]

Document TCP_USER_TIMEOUT

Text slightly adapted from Jerry Chu's (excellent) commit
message (commit dca43c75e7e545694a9dd6288553f55c53e2a3a3).

Michael Kerrisk

Document TCP_CONGESTION

Global changes

Various pages

Michael Kerrisk

Reword to avoid use of "etc."

Various pages

Peng Haitao [Andre Majorel]

Make wording around thread-safety and setlocale() more precise

getdate.3

strptime.3

locale.5

Michael Kerrisk

Replace "weekday" with less ambiguous language

Notwithstanding POSIX's use of the term "weekday", in everyday English, "weekday" is commonly understood to mean a day in the set [Monday..Friday] (vs one of the "weekend" days).

Changes to individual pages

epoll_wait.2

Michael Kerrisk [Jonas Jonsson]

Clarify wording of EINTR error

See https://bugzilla.kernel.org/show_bug.cgi?id=66571

faccessat.2

Michael Kerrisk

Note that the system call takes only three arguments

fallocate.2

Michael Kerrisk

Note filesystems that support FALLOC_FL_PUNCH_HOLE operation

fcntl.2

Michael Kerrisk

BUGS: The O_SYNC and O_DSYNC flags are not modifiable using F_SETFL

Michael Kerrisk

Add subsections under BUGS

There's several bugs listed. It's helpful to mark them separately.

Michael Kerrisk

POSIX.1 specifies F_SETOWN and F_GETOWN for sockets/SIGURG

getrlimit.2

Michael Kerrisk []

Note that rlim_cur can be set lower than current resource consumption

getsockopt.2

Michael Kerrisk

SEE ALSO: add ip(7) and udp(7)

keyctl.2

Michael Kerrisk

SEE ALSO: mention Documentation/security/keys.txt

linkat.2

Michael Kerrisk

Add ENOENT for O_TMPFILE created with O_EXCL

Michael Kerrisk

ERRORS: Add EINVAL

lseek.2

Michael Kerrisk

Note which filesystems support SEEK_HOLE/SEEK_DATA

msgop.2

Michael Kerrisk

Note that MSG_EXCEPT is Linux-specific

open.2

Michael Kerrisk

Update CONFORMING TO

Add POSIX.1-2008. Add mention of O_TMPFILE.

Update text on various flags that were added in POSIX.1-2008, and whose definitions can, since glibc 2.12, be obtained by suitably defining `_POSIX_C_SOURCE` or `_XOPEN_SOURCE`

Michael Kerrisk

Add pointer in description to BUGS, for O_ASYNC limitation

Michael Kerrisk

Remove crufty duplicate text on modifying file status flags

ptrace.2

Michael Kerrisk

Add details to descriptions of PTRACE_GETSIGMASK and PTRACE_SETSIGMASK

select.2

Michael Kerrisk [Marc Lehmann]

RETURN VALUE: Fix discussion of treatment of file descriptor sets

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=574370>

syscalls.2

Michael Kerrisk

Remove madvise1() from main list

madvise1() is one of the system calls that was never implemented, and listed toward the bottom of the page.

timer_create.2

Michael Kerrisk

Add pointer to proc(5) for info on /proc/[pid]/timers

unlinkat.2

Michael Kerrisk [Mike Frysinger:]

ERRORS: Add EISDIR

See https://bugzilla.kernel.org/show_bug.cgi?id=29702

ferror.3

Michael Kerrisk

clearerr(), feof(), and ferror() are also POSIX-conformant

Michael Kerrisk [Reuben Thomas]

CONFORMING TO: add fileno()

gets.3

Ian Abbott

SEE ALSO: add fgets(3)

mq_receive.3

mq_send.3

Michael Kerrisk [Simone Piccardi]

SYNOPSIS: s/unsigned/unsigned int/

printf.3

Michael Kerrisk

Small reorganization of text in EXAMPLE

rand.3

Michael Kerrisk

s/unsigned/unsigned int/ in example

stpcpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function stpcpy() is thread safe.

stpncpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function stpncpy() is thread safe.

strcat.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions strcat() and strncat() are thread safe.

strchr.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions strchr(), strrchr() and strchmul() are thread safe.

strcmp.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions strcmp() and strncmp() are thread safe.

strftime.3

Brandon Edens

Change "week day" to "day of week"

See https://bugzilla.kernel.org/show_bug.cgi?id=68861

strstr.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function strstr() is thread safe.

The function strcasestr() is thread safe with exceptions.

strtod.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions strtod(), strtodf() and strtold() are thread safe with exceptions.

strtoimax.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions strtoimax() and strtoumax() are thread safe with exceptions.

strtol.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions strtol(), strtoll() and strtob() are thread safe with exceptions.

tcgetpgrp.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions tcgetpgrp() and tcsetpgrp() are thread safe.

tcgetsid.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function tcgetsid() is thread safe.

core.5

Bernhard Walle

Mention that %E exists since Linux 3.0

'%E' in the 'core_pattern' has been introduced in kernel commit 57cc083ad9e1bfeeb4a0ee831e7bb008c8865bf0 which was included in version 3.0. Add that information to the manual page.

filesystems.5

Michael Kerrisk [Axel Beckert]

Add reference to proc(5) for more details on /proc/filesystems

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=735590>

locale.5

Michael Kerrisk

SEE ALSO: add locale(7)

proc.5

Michael Kerrisk

Document /proc/[pid]/timers

Michael Kerrisk

Update discussion of wchan

Remove crufty reference to /etc/psdatabase in /proc/PID/stat.

Add /proc/PID/wchan.

See <https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/737452>

environ.7

Michael Kerrisk [Gioele Barabucci]

Correct reference to locale(7) (not locale(5))

locale(7) is the right place for details of the LC_* environment variables.

See <http://bugs.debian.org/638186>

Michael Kerrisk

Improve references for discussion of locale environment variables

Michael Kerrisk

SEE ALSO: add catopen(3)

Michael Kerrisk

SEE ALSO: add locale(5)

man-pages.7

Michael Kerrisk

Prefer "usable" over "useable"

netdevice.7

Tilman Schmidt

Document SIOCGIFCONF case ifc_req=NULL

Add the missing description of the possibility to call SIOCGIFCONF

with `ifc_req==NULL` to determine the needed buffer size, as described in <http://lkml.indiana.edu/hypermail/linux/kernel/0110.1/0506.html> and verified against source files `net/core/dev_ioctl.c` and `net/ipv4/devinet.c` in the current kernel git tree. This functionality has been present since the beginning of the 2.6 series. It's about time it gets documented.

While I'm at it, also generally clarify the section on `SIOCGIFCONF`.

standards.7

Michael Kerrisk

Enhance description of V7

Michael Kerrisk

Add C11

tcp.7

Michael Kerrisk

Describe format of `tcp_*_congestion_control` /proc files

Describe format of `tcp_allowed_congestion_control` and `tcp_available_congestion_control`.

===== Changes in man-pages-3.58 =====

Released: 2014-02-11, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

pipe.2

Michael Kerrisk

Document the pipe2() O_DIRECT flag added in Linux 3.4

packet.7

Daniel Borkmann

Document PACKET_QDISC_BYPASS

New in Linux 3.14.

Global changes

Various pages

Simon Paillard

Formatting fix: add space between function and () if BR or IR

Detected through the regex:

```
git grep -P '\.(BR|IR) [\w]*([\d]*)$'
```

Various pages

Simon Paillard

Formatting fix: add space between word and punctuation if BR or IR

Detected through the regex:

```
git grep -P '\.(BR|IR) [^ ]*[\.,.]$'
```

Could probably be extended to match more cases and fix in perl.

Various pages

Michael Kerrisk

Use Oxford comma

gettid.2

restart_syscall.2

passwd.5

socket.7

Michael Kerrisk

Fix order of SEE ALSO entries

Changes to individual pages

epoll_wait.2

Michael Kerrisk [Network Nut]

Remove word "minimum" from the description of 'timeout'

epoll_wait.2

poll.2

select.2

Michael Kerrisk

Go into more detail on timeout and when call will cease blocking

getxattr.2

listxattr.2

removexattr.2

setxattr.2

Michael Kerrisk [Fabrice Bauzac]

Correct header file is <sys/xattr.h> (not <xattr/xattr.h>)

See https://bugzilla.kernel.org/show_bug.cgi?id=70141

msgctl.2

Cyril Hrubis

Add note about ignored arg to IPC_RMID

prctl.2

Michael Kerrisk []

PR_SET_PDEATHSIG value is preserved across execve(2)

recv.2

Michael Kerrisk

Rework and reorganize the text in various parts of the page.

Isolate details specific to recv() vs recvfrom() vs recvmsg()

Place details specific to each system call under a separate subheading.

Rework discussion of 'src_addr' and 'addrlen' for recvfrom()

Add description of 'buf' and 'len' in recvfrom() section

'addrlen' should be 0 (*not* NULL) when 'src_addr' is NULL

Improve text describing recvfrom() call that is equivalent to recv()

Michael Kerrisk []

Describe the various cases where the return value can be 0

shmctl.2

Michael Kerrisk

Note that 'buf' is ignored for IPC_RMID

symlinkat.2

Michael Kerrisk

Make argument names consistent with symlink(2) page

isalpha.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions isalnum(), isalpha(), isascii(), isblank(),
isctrnl(), isdigit(), isgraph(), islower(), isprint(),
ispunct(), isspace(), isupper() and isxdigit() are thread safe.

isatty.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function isatty() is thread safe.

isgreater.3

Peng Haitao

ATTRIBUTES: Note macros that are thread-safe

The macros isgreater(), isgreaterequal(), isless(),
islessequal(), islessgreater() and isunordered() are thread safe.

iswalnum.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function iswalnum() is thread safe with exceptions.

iswalpha.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function iswalpha() is thread safe with exceptions.

iswblank.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function iswblank() is thread safe with exceptions.

iswcntrl.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function iswcntrl() is thread safe with exceptions.

lockf.3

Michael Kerrisk [Simone Piccardi]

Fix incorrect argument mentioned under EINVAL error

pthread_kill.3

Michael Kerrisk

Add feature test macro requirements

pthread_sigmask.3

Michael Kerrisk

Add feature test macro requirements

strtoul.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions strtoul(), strtoull() and strtouq() are thread safe with exceptions.

nscd.conf.5

Peter Schiffer

Add note about default values

proc.5

Michael Kerrisk

SEE ALSO: Add some further kernel Documentation/sysctl files

man-pages.7

Michael Kerrisk

ATTRIBUTES sections come after VERSIONS

Peng Haitao has consistently ordered the ATTRIBUTES after VERSIONS, so adjust the text in man-pages.7

vdso.7

Michael Kerrisk

Add words "virtual dynamic shared object" in DESCRIPTION

==== Changes in man-pages-3.59 =====

Released: 2014-02-16, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Peter Schiffer <pschiffe@redhat.com>

Weizhou Pan <cs.wzpan@gmail.com>

Apologies if I missed anyone!

Global changes

Various pages

Peter Schiffer, Michael Kerrisk [Weizhou Pan]

Convert pages containing non-ASCII in source code comments to use UTF-8

Done using a slightly modified version of Peter Schiffer's `convert_to_utf_8.sh` script. The script was modified so as **not** a "coding:" marker to the groff source. For now, we'll only put that marker on pages that contain non-ASCII characters in the rendered text.

See https://bugzilla.kernel.org/show_bug.cgi?id=60807

armscii-8.7

cp1251.7

iso_8859-1.7

iso_8859-10.7

iso_8859-11.7

iso_8859-13.7

iso_8859-14.7

iso_8859-15.7

iso_8859-16.7

iso_8859-2.7

iso_8859-3.7

iso_8859-4.7

iso_8859-5.7

iso_8859-6.7

iso_8859-7.7

iso_8859-8.7

iso_8859-9.7

koi8-r.7

koi8-u.7

Peter Schiffer, Michael Kerrisk [Weizhou Pan]

Convert pages containing non-ASCII to use UTF-8

Done using Peter Schiffer's `convert_to_utf_8.sh` script.

These pages containing non-ASCII in the rendered characters, and so the script inserts a "coding:" marker into the groff source.

See https://bugzilla.kernel.org/show_bug.cgi?id=60807

===== Changes in man-pages-3.60 =====

Released: 2014-02-18, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Kalle Olavi Niemitalo <kon@iki.fi>
Michael Kerrisk <mtk.manpages@gmail.com>
Simon Paillard <spaillard@debian.org>

Apologies if I missed anyone!

Changes to individual pages

sigvec.3

Michael Kerrisk [Kalle Olavi Niemitalo]

Fix error in code snippet
s/sigpause/sigmask/

armscii-8.7

cp1251.7

iso_8859-1.7

iso_8859-10.7

iso_8859-11.7

iso_8859-13.7

iso_8859-14.7

iso_8859-15.7

iso_8859-16.7

iso_8859-2.7

iso_8859-3.7

iso_8859-4.7

iso_8859-5.7

iso_8859-6.7

iso_8859-7.7

iso_8859-8.7

iso_8859-9.7

koi8-u.7

Michael Kerrisk [Simon Paillard]

Remove comment that glyphs in column 4 may not display correctly

With the conversion to UTF-8, the glyphs in column 4 of the tables in these pages will display regardless of whether the environment is configured for the corresponding character set.

iso_8859-11.7

iso_8859-13.7

D. Barbier [Simon Paillard]

Fix encoding mistakes in 5f7f4042b8848127d852c6fa7c02e31ccfaeeae5

Fixed via:

```
for f in iso_8859-11 iso_8859-13; do
  cp man7/$f.7 $f
  iconv -f utf8 -t latin1 $f | iconv -f iso-${f#iso_} -t utf8 > man7/$f.7
done
```

==== Changes in man-pages-3.61 =====

Released: 2014-02-26, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Xiawei Chen <chenxiawei@gmail.com>

Apologies if I missed anyone!

New and rewritten pages

A note from Christoph Hellwig prompted me to perform a task that has been queued for a while: merging the text of the man pages for the `at(23)` ("directory file descriptor") APIs into their corresponding

traditional pages. When the `*at(2)` pages were originally written (mostly in 2006), the APIs were not part of POSIX and (in most cases) were not available on other systems. So, it made some sense to wall them off into their own separate pages. Eight years later, with the APIs now all in POSIX (except `scandirat()`), it is much more sensible to document the newer APIs alongside their traditional counterparts, so that the newer APIs are not "hidden", and the reader can more easily see the differences between the APIs.

Thus, the text of 14 pairs of pages has been merged, and the "merged from" pages have been converted to links to the "merged to" pages. Along the way, a few other fixes were made to the pages, as noted below.

One page that did not undergo such a change was `utimensat(2)`, which is different enough from `utime(2)` that it warrants a separate page. Unlike the other `*at()` pages, the `utimensat(2)` page was also already self-contained, rather than defining itself in terms of differences from `utime(2)` as the other `*at()` pages did.

`access.2`

Michael Kerrisk

Merge text from `faccessat(2)`

Michael Kerrisk

Remove `faccessat()` race warning

That point is already covered in existing text in this page.

Michael Kerrisk

`access()` also conforms to POSIX.1-2008

`chmod.2`

Michael Kerrisk

Merge text from `fchmodat(2)`

Michael Kerrisk

Use argument name 'pathname' throughout page

(Some APIs were using 'path' while others used 'pathname')

Michael Kerrisk

CONFORMING TO: `chmod()` and `fchmod()` are also in POSIX.1-2008

`chown.2`

Michael Kerrisk

Merge text of `fchownat(2)`

Michael Kerrisk

`AT_EMPTY_PATH` is Linux-specific and requires `_GNU_SOURCE`

Michael Kerrisk

Use argument name 'pathname' throughout page

(Some APIs were using 'path' while others used 'pathname')

Michael Kerrisk

Remove sentence that `fchownat()` is present on Solaris

That point was only really relevant before fchownat() was standardized in POSIX.1.2008.

Michael Kerrisk

CONFORMING TO: chown(), fchown(), lchown() are in POSIX.1-2008

link.2

Michael Kerrisk

Merge text of linkat(2)

Michael Kerrisk

CONFORMING TO: link() is in POSIX.1-2008

Michael Kerrisk

AT_EMPTY_PATH is Linux-specific and requires _GNU_SOURCE

mkdir.2

Michael Kerrisk

Merge text of mkdirat(2)

Michael Kerrisk

CONFORMING TO: mkdir() is in POSIX.1-2008

mknod.2

Michael Kerrisk

Merge text of mknodat(2)

Michael Kerrisk

CONFORMING TO: mknod(2) is in POSIX.1-2008

open.2

Michael Kerrisk

Merge text from openat(2)

Michael Kerrisk

Remove sentence that openat() is present on Solaris

That point was only really relevant before openat() was standardized in POSIX.1.2008.

readlink.2

Michael Kerrisk

Merge text of readlinkat(2)

Michael Kerrisk

CONFORMING TO: readlink() is in POSIX.1-2008.

Michael Kerrisk

Use argument name 'pathname' throughout page

(Some APIs were using 'path' while others used 'pathname')

rename.2

Michael Kerrisk

Merge text of renameat(2)

Michael Kerrisk

CONFORMING TO: rename(2) is in POSIX.1-2008

stat.2

Michael Kerrisk

Merge text from fstatat(2)

Michael Kerrisk

AT_EMPTY_PATH and AT_NO_AUTOMOUNT are Linux-specific
These flags require _GNU_SOURCE.

Michael Kerrisk

Use argument name 'pathname' throughout page
(Some APIs were using 'path' while others used 'pathname')

Michael Kerrisk

Remove sentence that fstatat() is present on Solaris
That point was only really relevant before fstatat() was
standardized in POSIX.1.2008.

Michael Kerrisk

CONFORMING TO: stat(), fstat(), lstat() are specified in POSIX.1-2008

symlink.2

Michael Kerrisk

Merge text of symlinkat(2)

Michael Kerrisk

CONFORMING TO: symlink() is in POSIX.1-2008

unlink.2

Michael Kerrisk

Merge text of unlinkat(2)

Michael Kerrisk

Remove sentence that unlinkat() is present on Solaris
That point was only really relevant before unlinkat() was
standardized in POSIX.1.2008.

Michael Kerrisk

CONFORMING TO: unlink() is in POSIX.1-2008

mkfifo.3

Michael Kerrisk

Merge text of mkfifoat(3)

Michael Kerrisk

CONFORMING TO: mkfifo() is in POSIX.1-2008

scandir.3

Michael Kerrisk

Merge text of scandirat(3)

Michael Kerrisk

Update feature test macro requirements
The FTM requirements changed in glibc 2.10.

Michael Kerrisk

Remove libc4/libc5 note under CONFORMING TO
No-one much cares about Linux libc these days.

Michael Kerrisk

Put detail about alphasort under a NOTES heading

This text was under CONFORMING TO, which made no sense.

Michael Kerrisk

Rework CONFORMING TO text

Newly documented interfaces in existing pages

prctl.2

Kir Kolyshkin

Document PR_SET_MM options in Linux 3.5

Some of the PR_SET_MM options were merged to vanilla kernel later, and appeared in Linux 3.5. Those are:

- PR_SET_MM_ARG_START
- PR_SET_MM_ARG_END
- PR_SET_MM_ENV_START
- PR_SET_MM_ENV_END
- PR_SET_MM_AUXV
- PR_SET_MM_EXE_FILE

socket.7

Neil Horman

Document the SO_RXQ_OVFL socket option

Michael Kerrisk

Add kernel version number for SO_RXQ_OVFL

New and changed links

facestat.2

Michael Kerrisk

Convert to link to access.2

fchmodat.2

Michael Kerrisk

Convert to link to chmod.2

fchownat.2

Michael Kerrisk

Convert to link to chown.2

fstatat.2

Michael Kerrisk

Convert to link to stat.2

linkat.2

Michael Kerrisk

Convert to link to link.2

mkdirat.2

Michael Kerrisk

Convert to link to mkdir.2

mknodat.2

Michael Kerrisk

Convert to link to mknod.2

openat.2

Michael Kerrisk

Convert to link to open.2

readlinkat.2

Michael Kerrisk

Convert to link to symlink.2

renameat.2

Michael Kerrisk

Convert to link rename.2

symlinkat.2

Michael Kerrisk

Convert to link to symlink.2

unlinkat.2

Michael Kerrisk

Convert to link to unlink.2

mkfifoat.3

Michael Kerrisk

Convert to link to mkfifo.3

scandirat.3

Michael Kerrisk

Convert to link to scandir.3

Changes to individual pages

alarm.2

Michael Kerrisk

Note semantics of alarm with respect to fork() and execve()

fcntl.2

Michael Kerrisk

Warn that F_GETLK info may already be out of date when the call returns

intro.2

Michael Kerrisk

Describe policy on documenting differences between syscall and glibc API

mmap2.2

Michael Kerrisk

Reword note on glibc mmap() wrapper invocation of mmap2()

Michael Kerrisk

This system call does not exist on x86-64

msgctl.2

Michael Kerrisk

ERRORS: add EPERM for unprivileged attempt to set msg_qbytes > MSGMNB

prctl.2

Michael Kerrisk [Xiawei Chen]

Clarify that PR_GET_TIMERSLACK is returned as the function result

Michael Kerrisk

Clarify that PR_GET_SECCOMP is returned as function result

Michael Kerrisk

Clarify that PR_GET_NO_NEW_PRIVS is returned as function result

ptrace.2

Michael Kerrisk [Andrew Hunter]

Make it clearer that glibc and syscall APIs differ for PTRACE_PEEK*

Thanks to Denys Vlasenko's additions in 78686915aed6bd12

this page does note that the glibc API for PTRACE_PEEK*

differs from the raw syscall interface. But, as the report

at https://bugzilla.kernel.org/show_bug.cgi?id=70801 shows,

this information could be more obvious. This patch makes its so.

sgetmask.2

Michael Kerrisk

Note that these system calls don't exist on x86-64

swapon.2

Michael Kerrisk

Split EINVAL cases into separate entries under ERRORS

Michael Kerrisk

Add EINVAL error for invalid flags to swapon()

syscalls.2

Michael Kerrisk

SEE ALSO: add intro(2)

umount.2

Michael Kerrisk

Split EINVAL cases into separate items

Michael Kerrisk

ERRORS: Add EINVAL case that was new in 2.6.34

utime.2

Michael Kerrisk

Add note that modern applications probably want utimensat(2) etc.

crypt.3

Michael Kerrisk [KOSAKI Motohiro]

ERRORS: Add EINVAL and EPERM errors

See https://bugzilla.kernel.org/show_bug.cgi?id=69771

getifaddrs.3

Michael Kerrisk

Enhance example program

Print statistics for AF_PACKET interfaces.

Add missing feature test macro definition.

Reformat output.

iswctype.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function iswctype() is thread safe.

sem_post.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sem_post() is thread safe.

sem_unlink.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sem_unlink() is thread safe.

sem_wait.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions sem_wait(), sem_trywait() and sem_timedwait() are thread safe.

setbuf.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions setbuf(), setbuffer(), setlinebuf() and setvbuf()

are thread safe.

strlen.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strlen() is thread safe.

strnlen.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strnlen() is thread safe.

strpbrk.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strpbrk() is thread safe.

strsep.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strsep() is thread safe.

swab.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function swab() is thread safe.

resolv.conf.5

Carlos O'Donnell

DESCRIPTION: mention that the data is trusted

In a recent discussion about DNSSEC it was brought to my attention that not all system administrators may understand that the information in /etc/resolv.conf is fully trusted.

The resolver implementation in glibc treats /etc/resolv.conf as a fully trusted source of DNS information and passes on the AD-bit for DNSSEC as trusted.

This patch adds a clarifying sentence to make it absolutely clear that indeed this source of information is trusted.

ascii.7

Michael Kerrisk [Sulaiman Mustafa]

Fix rendering of single quote (decimal character 39)

Michael Kerrisk

SEE ALSO: add utf-8(7)

Michael Kerrisk [Duncan de Wet]

Remove mention of ISO 8859-1 as being the default encoding on Linux

packet.7

Neil Horman

Document PACKET_FANOUT_QM fanout mode

Michael Kerrisk

Add kernel version for PACKET_FANOUT_QM

Daniel Borkmann

Improve PACKET_QDISC_BYPASS description

socket.7

Michael Kerrisk

Add kernel version number for SO_BUSY_POLL

==== Changes in man-pages-3.62 =====

Released: 2014-03-11, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

locale.1

Michael Kerrisk [review from Mike Frysinger]

New page describing locale(1)

Newly documented interfaces in existing pages

locale.5

Michael Kerrisk

Document LC_ADDRESS

Michael Kerrisk

Document LC_IDENTIFICATION

Michael Kerrisk

Document LC_MEASUREMENT

Michael Kerrisk

Document LC_NAME

Michael Kerrisk

Document LC_PAPER

Michael Kerrisk

Document LC_TELEPHONE

Removed Pages

sync.8

Michael Kerrisk [Christoph Hellwig, Pádraig Brady]

Sometime in the 20th century (before my watch), a sync(8) page into man-pages. It documents the sync command from "fileutils", which long ago become coreutils, and the piece under NOTES note some behavior of sync(2) that ceased to be true many years ago. The man-pages project generally focuses on only Linux kernel and (g)libc interfaces, so this sync(8) page doesn't really belong. Furthermore, coreutils has a sync(1) page which covers the same command. After discussions on the coreutils list, I've decided to retire this page from man-pages.

Changes to individual pages

clone.2

Michael Kerrisk

Note that CLONE_THREAD also in effect requires CLONE_VM

stat.2

Michael Kerrisk [Marius Gaubas]

Warn the reader that the 'stat' structure definition is not precise
Padding fields aren't shown, and the order of fields varies
somewhat across architectures.

gethostbyname.3

Michael Kerrisk

Remove redundant FTM requirements

`_GNU_SOURCE` implies `_SVID_SOURCE` and `_BSD_SOURCE`, so

`_BSD_SOURCE || _SVID_SOURCE || _GNU_SOURCE`

is the same as

`_BSD_SOURCE || _SVID_SOURCE`

getutmp.3

Michael Kerrisk

SEE ALSO: `add utmpdump(1)`

log1p.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `log1p()`, `log1pf()` and `log1pl()` are thread safe.

logb.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `logb()`, `logbf()` and `logbl()` are thread safe.

memccpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `memccpy()` is thread safe.

memchr.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `memchr()`, `memrchr()` and `rawmemchr()` are thread safe.

mktemp.3

Michael Kerrisk

Make warning not to use this function more prominent

qecvt.3

Michael Kerrisk [Joseph S. Myers]

Recommend `snprintf(3)` not `sprintf(3)`

raise.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `raise()` is thread safe.

remove.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function remove() is thread safe.

sem_destroy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sem_destroy() is thread safe.

sem_getvalue.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sem_getvalue() is thread safe.

sem_init.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function sem_init() is thread safe.

socketmark.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function socketmark() is thread safe.

strcpy.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions strcpy() and strncpy() are thread safe.

Michael Kerrisk [Rick Stanley]

Fix a bug, and improve discussion of forcing termination with strncpy()

strspn.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions strspn() and strcspn() are thread safe.

tempnam.3

Michael Kerrisk

Make warning not to use this function more prominent

tmpnam.3

Michael Kerrisk

Recommend use mkstemp(3) or tmpfile(3) instead

locale.5

Michael Kerrisk

Add intro section that lists all of the LC categories

Michael Kerrisk

'p_cs_precedes' is for *positive* values

Michael Kerrisk

Clarify 'p_sign_posn' and 'n_sign_posn'; simplify 'n_sign_posn'

Add initial sentence for 'p_sign_posn' and 'n_sign_posn'.

Remove repeated list for 'n_sign_posn'.

Michael Kerrisk

Document LC_MESSAGES 'yesstr' and 'nostr'

Michael Kerrisk

Clarify LC_MONETARY 'n_cs_precedes'

Michael Kerrisk

LC_MONETARY: Document 'int_p_sign_posn' and 'int_n_sign_posn'

Michael Kerrisk

Clarify/rework 'p_cs_precedes' and 'n_cs_precedes'

Michael Kerrisk

LC_MONETARY: document 'int_p_sep_by_space' and 'int_n_sep_by_space'

Michael Kerrisk

Remove crufty reference to POSIX.2

Michael Kerrisk

LC_MONETARY: document 'int_p_cs_precedes' and 'int_n_cs_precedes'

Michael Kerrisk

Clarify/simplify 'n_sep_by_space'

Michael Kerrisk

LC_TIME: document 'cal_direction' and 'date_fmt'

Michael Kerrisk

Clarify 'p_sep_by_space'

feature_test_macros.7

Michael Kerrisk

_BSD_SOURCE and _SVID_SOURCE are deprecated in glibc 2.20

Michael Kerrisk

_GNU_SOURCE implicitly defines other macros

Saying that _GNU_SOURCE has the "effects of" other macros is not quite precise.

Michael Kerrisk

Reword glibc version for _ISOC95_SOURCE

Michael Kerrisk

_ISOC99_SOURCE also exposes C95 definitions

Michael Kerrisk

_ISOC11_SOURCE implies the effects of _ISOC99_SOURCE

Michael Kerrisk

Note version number for _POSIX_C_SOURCE >= 200112L implies C99/C95

_POSIX_C_SOURCE >= 200112L causes C95 definitions to be exposed only since glibc 2.12 and C99 definitions only since 2.10.

Michael Kerrisk

_XOPEN_SOURCE may implicitly define _POSIX_SOURCE and _POSIX_C_SOURCE

Michael Kerrisk

Reword glibc version for _ISOC99_SOURCE

Michael Kerrisk

Rework discussion of _ISOC99_SOURCE

Michael Kerrisk

Improve discussion of _DEFAULT_SOURCE

Michael Kerrisk

_POSIX_C_SOURCE >= 200112L implies C95 and C95 features

==== Changes in man-pages-3.63 =====

Released: 2014-03-18, Munich

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Zhu Yanhai <zhu.yanhai@gmail.com>

Apologies if I missed anyone!

New and rewritten pages

duplocale.3

Michael Kerrisk

New page documenting duplocale(3)

newlocale.3

Michael Kerrisk [Mike Frysinger]

New page documenting newlocale(3) and freelocale(3)

towlower.3

Michael Kerrisk

Largely rewrite description of towlower() to be simpler and clearer

toupper.3

Michael Kerrisk

Largely rewrite description of toupper() to be simpler and clearer

uselocale.3

Michael Kerrisk

New page documenting uselocale(3)

Newly documented interfaces in existing pages

open.2

Michael Kerrisk

Document O_DSYNC and rewrite discussion of O_SYNC

isalpha.3

Michael Kerrisk

Document the "_l" locale APIs

The GNU C library v2.3 added some locale APIs, most of which were later specified in POSIX.1-2008, namely:

isalnum_l()

isalpha_l()

isblank_l()

isctrl_l()

isdigit_l()

isgraph_l()

islower_l()

isprint_l()

ispunct_l()

isspace_l()

isupper_l()

isxdigit_l()

isascii_l()

Also update and correct various pieces in CONFORMING TO (and remove a few crufty old pieces there).

strerror.3

Michael Kerrisk

Document strerror_l()

toupper.3

Michael Kerrisk

Document toupper_l() and tolower_l()

towlower.3

Michael Kerrisk

Document towlower_1()

toupper.3

Michael Kerrisk

Document toupper_1()

proc.5

Michael Kerrisk

Document /proc/sys/kernel/random/uuid

locale.7

Michael Kerrisk

Document LC_ADDRESS

Document LC_IDENTIFICATION

Document LC_MEASUREMENT

Document LC_NAME

Document LC_PAPER

Document LC_TELEPHONE

New and changed links

freelocale.3

Michael Kerrisk

New link to new newlocale.3 page

isalnum_1.3

isascii_1.3

isblank_1.3

iscntrl_1.3

isdigit_1.3

isgraph_1.3

islower_1.3

isprint_1.3

ispunct_1.3

isspace_1.3

isupper_1.3

isxdigit_1.3

Michael Kerrisk

New links to isalpha.3

tolower_1.3

toupper_1.3

Michael Kerrisk

New links to toupper.3

towlower_1.3

Michael Kerrisk

New link to towlower.3

toupper_1.3

Michael Kerrisk

New link to toupper.3

Global changes

Various pages

Michael Kerrisk

Global change: "upper case" ==> "uppercase", "lower case" ==> lowercase"

Changes to individual pages

mount.2

Michael Kerrisk

SEE ALSO: add blkid(1)

msgop.2

Michael Kerrisk

Document two MSG_COPY failure modes

Since Linux 3.14, the kernel now diagnoses two errors when using msgrcv() MSG_COPY:

* MSG_COPY must be specified with IPC_NOWAIT

* MSG_COPY can't be specified with MSG_EXCEPT

open.2

Michael Kerrisk

Organize some material under additional subheadings in NOTES

There's an amorphous mass of material under NOTES. Structure it with some subheadings, and do a little reorganizing.

Michael Kerrisk

Add other system calls and functions that are like openat()

fanotify_mark(2), name_to_handle_at(2), and scandirat(3) have a directory file descriptor argument for the same reason as openat().

Also: reword the rationale for the *at() functions somewhat.

Michael Kerrisk

Clarify ELOOP error interaction with O_PATH

readahead.2

Phillip Susi [Corrado Zoccolo, Gregory P. Smith, Zhu Yanhai, Michael Kerrisk, Christoph Hellwig]

Don't claim the call blocks until all data has been read

The readahead(2) man page was claiming that the call blocks until all data has been read into the cache. This is incorrect.

See https://bugzilla.kernel.org/show_bug.cgi?id=54271

stat.2

Michael Kerrisk

SEE ALSO: add ls(1) and stat(1)

fts.3

Christoph Hellwig [Michael Kerrisk]

The fts(3) API does not work with LFS builds

As pointed out during a recent discussion on libc-hacker the fts(3) APIs can't be used with large file offsets:

https://sourceware.org/bugzilla/show_bug.cgi?id=15838

mbrtowc.3

mbsnrtowcs.3

mbsrtowcs.3

mbtowc.3

Michael Kerrisk

Add entries in SEE ALSO

Mainly inspired by the POSIX pages.

mbsinit.3

Michael Kerrisk

SEE ALSO: add mbrlen(3), mbrtowc(3), and wctomb(3)

mbsrtowcs.3

wcsrtombs.3

Michael Kerrisk

SEE ALSO: add mbsinit(3)

mbstowcs.3

Michael Kerrisk [Stefan Puiu]

Add example program

And add some SEE ALSO entries

memcmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memcmp() is thread safe.

memcpy.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memcpy() is thread safe.

memfrob.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memfrob() is thread safe.

memmem.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memmem() is thread safe.

memmove.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memmove() is thread safe.

memcpy.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions memcpy() and wmemcpy() are thread safe.

memset.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function memset() is thread safe.

strerror.3

Michael Kerrisk

CONFORMING TO: strerror() and strerror_r() are in POSIX.1-2008

Michael Kerrisk

Add SS heading for strerror_r()

toupper.3

Michael Kerrisk

Rewrite to more explicitly bring locales into the discussion

Michael Kerrisk

Retitle BUGS section to NOTES

These are not really bugs, just background info.

wcrtomb.3

wcsnrtombs.3

wcsrtombs.3

wcstombs.3

wctomb.3

Michael Kerrisk

SEE ALSO: add various entries

Mainly inspired by POSIX

core.5

Mike Frysinger [Michael Kerrisk]
Document core_pattern %d specifier
Document %P core_pattern specifier
Michael Kerrisk
Rearrange core_pattern specifiers alphabetically

locale.5

Michael Kerrisk
SEE ALSO: add newlocale(3) + duplocale(3)

feature_test_macros.7

Michael Kerrisk [Joseph S. Myers]
Remove mention of bogus _ISOC95_SOURCE macro
The _ISOC95_SOURCE macro is defined in <features.h>, but it does nothing. So remove discussion of it, and move some of the discussion of C95 under the _ISOC99_SOURCE subhead.
Michael Kerrisk [Carlos O'Donnell]
Add packaging note for _BSD_SOURCE/_SVID_SOURCE/_DEFAULT_SOURCE
To compile warning-free across glibc < 2.20 and glibc >= 2.20 code may be to define both _DEFAULT_SOURCE and either _BSD_SOURCE or _SVID_SOURCE.
Michael Kerrisk
Reword description of C90

locale.7

Michael Kerrisk
Add subsection on POSIX.1-2008 (originally GNU) extensions to locale API
Michael Kerrisk
Remove reference to LI18NUX2000
LI18NUX2000 is difficult to even find these days, and in any case this page does not document gettext(), so notes about gettext() in the CONFORMING TO section here make no sense.
Michael Kerrisk
SEE ALSO: add mbstowcs(3) and wctombs(3)
SEE ALSO: add newlocale(3) + duplocale(3)

man-pages.7

Michael Kerrisk
Add preferred term "superblock"
Michael Kerrisk
Add preferred terms "uppercase" and "lowercase"

==== Changes in man-pages-3.64 =====

Released: 2014-04-06, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

open_by_handle_at.2

Michael Kerrisk [Mike Frysinger, Neil Brown, Aneesh Kumar K.V,
Christoph Hellwig]

New page describing name_to_handle_at(2) and open_by_handle_at(2)

inotify.7

Michael Kerrisk

Rewrite introductory section

Reorganize "Limitations and caveats" subsection

Michael Kerrisk

Further describe the race when adding a watch to a new subtree

Michael Kerrisk

Directory renames may invalidate multiple paths cached by application

Michael Kerrisk

Add paragraph on cache consistency checking

Michael Kerrisk

Mention cache rebuilding to handle overflow events

Michael Kerrisk

Moving an object to another filesystem generates `IN_DELETE_SELF`

Michael Kerrisk [Jan Kara]

Add text on dealing with `rename()` events

Michael Kerrisk

Note rationale and consequences of event coalescing

Michael Kerrisk [Eric W. Biederman]

Inotify doesn't work for remote and pseudo filesystems

Michael Kerrisk

Add some examples of events generated by various system calls

Michael Kerrisk

BUGS: `IN_ONESHOT` does now cause `IN_IGNORED` when the watch is dropped

A silent change as a result of the fanotify work in kernel 2.6.36.

Michael Kerrisk

Note that `IN_DELETE_SELF` will be followed by `IN_IGNORED`

Michael Kerrisk

Note that `IN_UNMOUNT` will be followed by an `IN_IGNORED` event

Michael Kerrisk

Inotify does not report events for `mmap(2)` and `msync(2)`

Michael Kerrisk

Add examples of syscalls that trigger `IN_ATTRIB`

Michael Kerrisk

Add some examples of syscalls that trigger `IN_MODIFY`

Michael Kerrisk

`execve(2)` also generates `IN_ACCESS`

Michael Kerrisk

Add examples of syscalls that trigger `IN_CREATE`

Newly documented interfaces in existing pages

`perf_event_open.2`

Vince Weaver [Michael Kerrisk]

Document the `PERF_FLAG_FD_CLOEXEC` flag

The Linux 3.14 release adds support for the `PERF_FLAG_FD_CLOEXEC` flag.

`feature_test_macros.7`

Michael Kerrisk

Document `_LARGEFILE_SOURCE`

tcp.7

Michael Kerrisk [Eric Dumazet]

Document /proc/sys/net/ipv4/tcp_autocorking

Text heavily based on Documentation/networking/ip-sysctl.txt

New and changed links

name_to_handle_at.2

Michael Kerrisk

New link to new open_by_handle_at(2) page

Global changes

fmemopen.3

getaddrinfo.3

mq_notify.3

offsetof.3

aio.7

Michael Kerrisk

Print size_t/ssize_t values using %z printf() modifier

There are fewer and fewer systems these days that don't support the %z specifier mandated in C99. So replace the use of %ld/%lu + (long) cast with %zd/%zu.

Changes to individual pages

bdflush.2

fsync.2

sync.2

Kir Kolyshkin

SEE ALSO: remove update(8) reference

Remove reference to update(8) man page, since there is no such page. This is an ancient BSD leftover I believe.

chown.2

Michael Kerrisk

Note that 'dirfd' can be AT_FDCWD when AT_EMPTY_PATH is used

getxattr.2

Abhay Sachan

Fix RETURN VALUE description

A EA can have length zero.

inotify_add_watch.2

Michael Kerrisk

ERRORS: add ENAMETOOLONG

inotify_init.2

Michael Kerrisk

Add pointer to inotify(7)

link.2

Michael Kerrisk

When AT_EMPTY_PATH is specified, 'olddirfd' must not refer to a directory

mmap.2

Andrey Vagin

The file descriptor for a file mapping must be readable

There is no difference between MAP_SHARED and MAP_PRIVATE.

open.2

Michael Kerrisk

SEE ALSO: add open_by_name_at(2)

perf_event_open.2

Vince Weaver

Document PERF_EVENT_IOC_PERIOD behavior change

Linux 3.14 (in commit bad7192b842c83e580747ca57104dd51fe08c223)

changes the perf_event PERF_EVENT_IOC_PERIOD ioctl() behavior

on all architectures to update immediately, to match the behavior

found on ARM.

stat.2

Michael Kerrisk

Note that 'dirfd' can be AT_FDCWD when AT_EMPTY_PATH is used

syscalls.2

Michael Kerrisk

Add sched_getattr() and sched_setattr()

And update kernel version to 3.14

abort.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function abort() is thread safe.

confstr.3

Michael Kerrisk

SEE ALSO: add getconf(1), fpathconf(3), sysconf(3), pathconf(3)

exit.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function `exit()` is not thread safe.

fenv.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `feclearexcept()`, `fegetexceptflag()`, `feraiseexcept()`, `fesetexceptflag()`, `fetestexcept()`, `fegetround()`, `fesetround()`, `fegetenv()`, `fehldexcept()`, `fesetenv()`, `feupdateenv()`, `feenableexcept()`, `fedisableexcept()` and `fegetexcept()` are thread safe.

fpathconf.3

Michael Kerrisk

SEE ALSO: `add confstr(3)`

fseek.3

Michael Kerrisk [Petr Gajdos]

Document `EINVAL` error for negative file offset

fseeko.3

Michael Kerrisk

Add feature test macro requirements

fts.3

Michael Kerrisk [Mike Frysinger]

Remove mention of "32-bit systems" in `BUGS`

fwide.3

wprintf.3

Michael Kerrisk [Robert P. J. Day]

Remove mention of bogus `_ISOC95_SOURCE` feature test macro

getline.3

Alexey Samsonov

Caller should free the allocated buffer even if `getline()` failed

Relevant discussion in `glibc bugzilla`:

https://sourceware.org/bugzilla/show_bug.cgi?id=5666

getloadavg.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `getloadavg()` is thread safe.

getpt.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `getpt()` is thread safe.

`if_nametoindex.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `if_nametoindex()` and `if_indextoname()` are thread safe.

`index.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `index()` and `rindex()` are thread safe.

`mkfifo.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `mkfifo()` and `mkfifoat()` are thread safe.

`netlink.3`

Michael Kerrisk

SEE ALSO: make the reference for `libnetlink` the `libnetlink(3)` man page

`random.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `random()`, `srandom()`, `initstate()` and `setstate()` are thread safe.

`random_r.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `random_r()`, `srandom_r()`, `initstate_r()` and `setstate_r()` are thread safe.

`sigvec.3`

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `sigvec()`, `sigblock()`, `sigsetmask()` and `siggetmask()` are thread safe.

The macro `sigmask()` is thread safe.

`sysconf.3`

Michael Kerrisk

SEE ALSO: add `confstr(3)`

`termios.3`

Michael Kerrisk [Peter Hurley]

Fix error in discussion of MIN > 0, TIME == 0 noncanonical mode

As reported by Peter Hurley, for the MIN > 0, TIME == 0 case:

read() may unblock when MIN bytes are available but return up to the 'count' parameter if more input arrives in between waking and copying into the user buffer.

...

read() may also *_not_* return until MIN bytes have been received, even if 'count' bytes have been received.

Michael Kerrisk

Add a note on interaction of O_NONBLOCK with noncanonical MIN/TIME

POSIX leaves the behavior open.

Michael Kerrisk

Clarify termination conditions for MIN > 0, TIME > 0

Michael Kerrisk

Clarify behavior if data is available before noncanonical read()

Michael Kerrisk

Add descriptive titles to noncanonical read() cases

symlink.7

Michael Kerrisk

Add subsection on opening a symbolic link with O_PATH

Michael Kerrisk

name_to_handle_at(2) and open_by_handle_at(2) optionally follow symlinks

Michael Kerrisk

Mention use of readlink(2) to read contents of a symlink

==== Changes in man-pages-3.65 =====

Released: 2014-04-20, Munich

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Apologies if I missed anyone!

New and rewritten pages

inet_net_pton.3

Michael Kerrisk

New page describing inet_net_pton(3) and inet_net_ntop(3)

Newly documented interfaces in existing pages

fallocate.2

Michael Kerrisk, Namjae Jeon [Christoph Hellwig, Dave Chinner]

Document FALLOC_FL_COLLAPSE_RANGE

prctl.2

Michael Kerrisk [Alex Thorlton]

Document PR_SET_THP_DISABLE and PR_GET_THP_DISABLE

proc.5

Michael Kerrisk

Document /proc/[pid]/stack

Michael Kerrisk

Document /proc/[pid]/clear_refs

New and changed links

inet_net_ntop.3

Michael Kerrisk

New link to new inet_net_pton.3

Changes to individual pages

fcntl.2

Michael Kerrisk

Note the race when O_CLOEXEC is used at same time as fork()+execve()

madvise.2

Michael Kerrisk

SEE ALSO: see prctl(2)

Because of PR_SET_THP_DISABLE.

mlock.2

Michael Kerrisk

Describe treatment of MCL_FUTURE during fork(2) and execve(2)

msync.2

Michael Kerrisk [Richard Hansen, Greg Troxel]

Warn that one of MS_SYNC or MS_ASYNC is required

open.2

Michael Kerrisk

Add more detail on the race that O_CLOEXEC is designed to avoid

Michael Kerrisk [Matthew Dempsky]

Remove crufty text stating that O_DIRECTORY is Linux-specific

Michael Kerrisk

Note which filesystems support O_TMPFILE

perf_event_open.2

Vince Weaver [Michael Kerrisk]

Clarify EACCES and EPERM errors

Clarify the reasons for EACCES and EPERM errors.

Vince Weaver [Michael Kerrisk]

Make the ERRORS section more comprehensive.

Determined both by code inspection and by writing a large number of test programs.

personality.2

Michael Kerrisk

Available execution domains are listed in <sys/personality.h>

Michael Kerrisk

Fix discussion of return value

prctl.2

Michael Kerrisk

ERRORS: document EINVAL for PR_GET_NO_NEW_PRIVS

ERRORS: document EINVAL for PR_SET_PDEATHSIG
ERRORS: document EINVAL for PR_SET_TIMING
ERRORS: document EINVAL for PR_SET_DUMPABLE
ERRORS: document EINVAL for PR_SET_NO_NEW_PRIVS

shmget.2

Michael Kerrisk

Rewrite description of SHMMNI default value

Michael Kerrisk

Note default value of SHMMAX

Note default value for SHMALL

byteorder.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions htonl(), htons(), ntohl() and ntohs() are thread safe.

fexecve.3

Michael Kerrisk [Steven Stewart-Gallus]

If 'fd' is a close-on-exec file descriptor for a script, fexecve() fails

See https://bugzilla.kernel.org/show_bug.cgi?id=74481

ffs.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions ffs(), ffs1() and ffsll() are thread safe.

getauxval.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function getauxval() is thread safe.

getcontext.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions getcontext() and setcontext() are thread safe.

getsubopt.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function getsubopt() is thread safe.

getutmp.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions getutmp() and getutmpx() are thread safe.

inet.3

Michael Kerrisk

Note success and error return for inet_aton()

inet.3

Michael Kerrisk [Craig McQueen]

The form 'a.b' if is suitable for Class A addresses (not class C)

Michael Kerrisk

SEE ALSO: add inet_net_pton(3)

makecontext.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions makecontext() and swapcontext() are thread safe.

pthread_attr_setdetachstate.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setdetachstate() and pthread_attr_getdetachstate() are thread safe.

pthread_attr_setguardsize.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setguardsize() and pthread_attr_getguardsize() are thread safe.

sigsetops.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions sigemptyset(), sigfillset(), sigaddset(), sigdelset(), sigismember(), sigisemptyset(), sigorset() and sigandset() are thread safe.

proc.5

Petr Gajdos

Improve /proc/[pid]/smaps entries description

Michael Kerrisk

/proc/PID/smaps is present only if CONFIG_PROC_PAGE_MONITOR

Michael Kerrisk

Note kernel version for /proc/sys/kernel/{shmall,shmmax}

Michael Kerrisk

Note kernel version for /proc/sys/kernel/{msgmax,msgmnb}

capabilities.7

Michael Kerrisk

SEE ALSO: add capsh(1)

libc.7

Michael Kerrisk
Add musl libc

==== Changes in man-pages-3.66 =====

Released: 2014-05-08, Munich

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Apologies if I missed anyone!

New and rewritten pages

fanotify_init.2

Heinrich Schuchardt, Michael Kerrisk

New page documenting fanotify_init(2)

fanotify_mark.2

Heinrich Schuchardt, Michael Kerrisk

New page documenting fanotify_mark(2)

sched_setscheduler.2

Michael Kerrisk

Page rewritten

Stripped out the general scheduling material, which moved to sched(7), and rewrote much of the remainder.

Changed copyright and license since pretty much all of the content was or is written by mtk.

fanotify.7

Heinrich Schuchardt, Michael Kerrisk

New page providing overview of the fanotify API

sched.7

Michael Kerrisk

New page providing an overview of the scheduling APIs

Most of this content derives from sched_setscheduler(2). In preparation for adding a sched_setattr(2) page, it makes sense to isolate out this general content to a separate page that is referred to by the other scheduling pages.

Newly documented interfaces in existing pages

fallocate.2

Lukas Czerner [Michael Kerrisk]

Document FALLOC_FL_ZERO_RANGE

FALLOC_FL_ZERO_RANGE was added in Linux 3.14, for zeroing ranges in the allocated space in a file.

rename.2

Miklos Szeredi [Michael Kerrisk]

Document renameat2() system call added in Linux 3.15

shmop.2

Michael Kerrisk

Document SHM_EXEC

Changes to individual pages

flock.2

Michael Kerrisk

Employ term "open file description" in DESCRIPTION

And include reference to open(2) for an explanation of the term.

getpriority.2

Michael Kerrisk

SEE ALSO: add sched(7)

getsockopt.2

Carsten Andrich

SEE ALSO: add packet(7)

link.2

Michael Kerrisk [Steven Stewart-Gallus]

Document ENOENT error for linkat()

See https://bugzilla.kernel.org/show_bug.cgi?id=73301

msgget.2

Michael Kerrisk

Reword EEXIST error

msgop.2

Michael Kerrisk

Note capability required to raise MQ size beyond MSGMNB

msync.2

Michael Kerrisk [Heinrich Schuchardt]

s/flushes... back to disk/flushes... back to filesystem/

nice.2

Michael Kerrisk

SEE ALSO: add sched(7)

open.2

Peter Schiffer

Update note on alignment of user buffer and file offset for O_DIRECT

The sentence in open(2) man page in notes for O_DIRECT flag:

"Under Linux 2.6, alignment to 512-byte boundaries suffices."

is not universally correct. The alignment is a property of the storage, for example, 4k-sector drives with no 512 byte sector emulation will be unable to perform 512-byte direct I/O.

Michael Kerrisk

Note some of the various synonyms for "open file description"

Michael Kerrisk

Remove repetitious text on use of `fcntl()` to change file status flags

`open_by_handle_at.2`

Michael Kerrisk

Mention FreeBSD analogs

`posix_fadvise.2`

Michael Kerrisk [Eric Siegerman]

Fix wording error under "Architecture-specific variants"

See https://bugzilla.kernel.org/show_bug.cgi?id=75431

`process_vm_readv.2`

Michael Kerrisk [Stijn Hinterding]

Add feature test macro requirements

The `_GNU_SOURCE` FTM must be defined.

`read.2`

Michael Kerrisk

BUGS: detail nonatomicity bug with respect to file offset updates

This bug was fixed in Linux 3.14, with commit

`9c225f2655e36a470c4f58dbbc99244c5fc7f2d4`

See also <http://thread.gmane.org/gmane.linux.kernel/1649458>

`sched_get_priority_max.2`

Michael Kerrisk

Small changes consistent with migration of content to `sched(7)`

`sched_rr_get_interval.2`

Michael Kerrisk

Small changes consistent with migration of content to `sched(7)`

`sched_setaffinity.2`

Michael Kerrisk

Small changes consistent with migration of content to `sched(7)`

`sched_setparam.2`

Michael Kerrisk

Small changes consistent with migration of content to `sched(7)`

`sched_yield.2`

Michael Kerrisk

Small changes consistent with migration of content to `sched(7)`

`semget.2`

Michael Kerrisk

Consolidate discussion on noninitialization of semaphores

The fact that `semget()` does not initialize the semaphores

in a new set was covered in two places (in DESCRIPTION and BUGS). Consolidate these into one place (in NOTES) and also point out that POSIX.1-2008 says that a future version of the standard may require an implementation to initialize the semaphores to 0.

Michael Kerrisk

Clarify SEMMNS versus SEMMSL*SEMMNI

Michael Kerrisk

Rework EINVAL text a little

Michael Kerrisk

Clarify wording for EEXIST error

shmget.2

Manfred Spraul

Clarify SHMALL

The default for SHMALL is a limit of 8 GB, regardless of PAGE_SIZE. The current documentation does not mention that and is therefore more difficult to understand than necessary.

Manfred Spraul

Correct math error

2097152 is 2^{21} , not 2^{20} .

Michael Kerrisk

Reword EEXIST error

Michael Kerrisk

Clarify one of the EINVAL cases

Michael Kerrisk

Note that SHM_NORESERVE is a Linux extension

Michael Kerrisk [Simon Paillard]

Fix kernel version numbers in discussion of SHMALL

Michael Kerrisk

Rework EINVAL text

Michael Kerrisk

Move and rework discussion of mode bits

Michael Kerrisk

Reword description of O_EXCL

shmop.2

Michael Kerrisk

Move fork(2), execve(2), _exit(2) discussion to NOTES

Michael Kerrisk

Add subheads for shmat() and shmdt()

Michael Kerrisk

Rework discussion of SHM_RDONLY and SHM_REMAP into list format

Michael Kerrisk

Structure the attach cases as a list

sigaction.2

Alan Curry

Fix bad cross reference (times(2) not time(2))

The system call that reports child CPU usage is times(2),
not time(2).

symlink.2

Michael Kerrisk [Steven Stewart-Gallus]

Document ENOENT error for symlinkat()

See https://bugzilla.kernel.org/show_bug.cgi?id=73301

syscalls.2

Michael Kerrisk

Add renameat2()

And bump kernel version.

write.2

Michael Kerrisk

BUGS: detail nonatomicity bug with respect to file offset updates

This bug was fixed in Linux 3.14, with commit

9c225f2655e36a470c4f58dbbc99244c5fc7f2d4

See also <http://thread.gmane.org/gmane.linux.kernel/1649458>

pthread_attr_setinheritsched.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setinheritsched() and

pthread_attr_getinheritsched() are thread safe.

pthread_attr_setschedparam.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setschedparam() and

pthread_attr_getschedparam() are thread safe.

pthread_attr_setschedpolicy.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setschedpolicy() and

pthread_attr_getschedpolicy() are thread safe.

pthread_attr_setscope.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setscope() and pthread_attr_getscope()

are thread safe.

pthread_attr_setstack.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `pthread_attr_setstack()` and `pthread_attr_getstack()` are thread safe.

`sched_getcpu.3`

Michael Kerrisk

SEE ALSO: add `sched(7)`

`termios.3`

Michael Kerrisk [Yuri Kozlov]

Rework intro text for `'c_oflag'`

Michael Kerrisk

OFDEL is in POSIX.1-2001, so remove "(Not in POSIX)" text

`proc.5`

Jan Moskyto Matejka [Randy Dunlap]

Improve description of `/proc/stat` `'intr'` field

The sum at the beginning of line `"intr"` includes also unnumbered interrupts.

`packet.7`

Carsten Andrich [Neil Horman]

Improve `sockopt` documentation for packet sockets

Carsten Andrich [Willem de Bruijn]

`PACKET_LOSS` has inverse meaning

Stefan Puiu [Daniel Borkmann, Carsten Andrich]

Status in `PACKET_RX_RING` is actually a bit mask

Michael Kerrisk [Carsten Andrich]

SEE ALSO: add `/tools/testing/selftests/net/psock_tpacket.c`

==== Changes in man-pages-3.67 =====

Released: 2014-05-21, Munich

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Apologies if I missed anyone!

New and rewritten pages

sched_setattr.2

Michael Kerrisk, Peter Zijlstra [Juri Lelli]

New page describing sched_setattr(2) and sched_getattr(2)

system.3

Michael Kerrisk

Rewrote large parts of the page and added a number of details

Newly documented interfaces in existing pages

sched.7

Peter Zijlstra, Michael Kerrisk [Juri Lelli]

Document SCHED_DEADLINE

New and changed links

renameat2.2

Michael Kerrisk

New link to rename.2

sched_getattr.2

Michael Kerrisk

New link to new sched_setattr

Changes to individual pages

bind.2

Michael Kerrisk

ERRORS: Add EADDRINUSE for ephemeral port range exhaustion

chown.2

Michael Kerrisk

NOTES: Add some subheadings

connect.2

Michael Kerrisk [William Morriss]

ERRORS: Add EADDRNOTAVAIL for ephemeral port range exhaustion

Verified from testing and the kernel source.

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=745775>

Michael Kerrisk

Remove mention of ip_local_port_range under EAGAIN error

create_module.2

delete_module.2

init_module.2

query_module.2

Michael Kerrisk [Lucas De Marchi]

Clarify glibc header file declaration/ABI wrapper details

create_module(), delete_module(), init_module(), and

query_module() are not declared in header files, but

through an accident of history glibc provides an ABI

for them that it continues to maintain, for

compatibility reasons.

execve.2

Michael Kerrisk [Steven Stewart-Gallus]

Note SIGKILL case when execve() fails beyond the point of no return

Michael Kerrisk

NOTES: Add a subheading and reorder paragraphs

fanotify_init.2

Heinrich Schuchardt [Michael Kerrisk]

Document range of permitted flags for event_f_flags

With a new patch included in the mm tree, event_f_flags is

checked for allowable values.

fcntl.2

Michael Kerrisk

Add "file locking" subheading under NOTES

fork.2

Michael Kerrisk

ERRORS: SCHED_DEADLINE tasks can fail with EAGAIN
SCHED_DEADLINE tasks can fail with EAGAIN unless the
reset-on-fork flag is set.

futex.2

Michael Kerrisk

Note that there is no glibc wrapper

getpriority.2

Rasmus Villemoes

Fix prototypes for getpriority() and setpriority()
The who argument has type id_t (which happens to be u32 on linux).

get_robust_list.2

Rasmus Villemoes

Add <sys/types.h> to synopsis of get_robust_list()
If one were to implement wrappers for [gs]et_robust_list() using the
given prototypes, one would also have to include sys/types.h to get
a definition of size_t.

getrusage.2

Michael Kerrisk [Bill Allombert]

_GNU_SOURCE must be defined to obtain RUSAGE_THREAD definition
See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=746569>

link.2

open.2

Andy Lutomirski [Michael Kerrisk]

Update AT_EMPTY_PATH and O_PATH documentation

listen.2

Michael Kerrisk

ERRORS: Add EADDRINUSE for ephemeral port range exhaustion

mbind.2

Rasmus Villemoes

Fix prototype for mbind(2)
The nmask argument is const. The return type in numaif.h is long.
(Well, at least <numaif.h> says nmask is const. The current kernel
does not define it as a const argument, but sys_mbind() only
passes it to get_nodes(), which does treat it as const.)

msgop.2

Davidlohr Bueso [Michael Kerrisk]

Enhance description of "full queue" criteria

poll.2

Rasmus Villemoes

Add `<signal.h>` to synopsis for `ppoll()`

One needs to `#include <signal.h>` to get the definition of the type (`sigset_t`) of the mask argument to `ppoll()`.

readlink.2

Rasmus Villemoes

Fix return type of `readlinkat()`

recv.2

Michael Kerrisk

Clarify details of `msg_name` and `msg_namelen` fields

recvmmsg.2

Michael Kerrisk

Describe timeout bug

See https://bugzilla.kernel.org/show_bug.cgi?id=75371
and <http://thread.gmane.org/gmane.linux.man/5677>

remap_file_pages.2

Andy Lutomirski [Christoph Hellwig, Andy Lutomirski]

`remap_file_pages()` has no benefit for real files

Linux commit `3ee6dafc677a68e461a7ddafc94a580ebab80735` caused `remap_file_pages` to be emulated when used on real file.

sched_get_priority_max.2

Michael Kerrisk

'policy' can also be `SCHED_DEADLINE`

sched_setaffinity.2

Rasmus Villemoes

Fix prototype for `sched_setaffinity()`

The mask argument is `const`.

sched_setparam.2

Michael Kerrisk

ERRORS: mark errors that apply just for `sched_setparam()`

Michael Kerrisk

ERRORS: Add `EINVAL` for invalid arguments

Michael Kerrisk

SEE ALSO: add `sched_setattr(2)`

sched_setscheduler.2

Michael Kerrisk

ERRORS: mark errors that apply just to `sched_setscheduler()`

Michael Kerrisk

ERRORS: add EINVAL case for pid < 0

Michael Kerrisk

ERRORS: separate out EINVAL cases

semget.2

Michael Kerrisk

NOTES: Add subheadings and reorder paragraphs

semop.2

Rasmus Villemoes

Fix prototypes for semop() and semtimedop()

The nsops arguments have type size_t, not unsigned, and the timeout argument of semtimedop() is const.

Michael Kerrisk

NOTES: Add a subheading

send.2

Michael Kerrisk

Add details on various 'msghdr' fields

Michael Kerrisk

ERRORS: Add EAGAIN for ephemeral port range exhaustion

Michael Kerrisk

Add some subheadings under DESCRIPTION

shmget.2

Michael Kerrisk

NOTES: Add a subheading

stat.2

Michael Kerrisk [Aurelien Jarno]

Describe feature test macro requirements for file type test macros

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=728240>

Michael Kerrisk

Update FTM requirements for lstat()

Michael Kerrisk

Split discussion of 'st_mode' fields into type and permissions

Michael Kerrisk

Move text on S_I*() macros to follow text on S_I* macros

That ordering is more logical

stime.2

Rasmus Villemoes

Fix prototype for stime()

The argument is const, both according to the actual header files and according to <<http://www.sco.com/developers/devspecs/vol11a.pdf>>.

syscall.2

Rasmus Villemoes

Fix prototype for syscall()

The first argument and the return value of syscall() has type long,
not int.

getopt.3

Michael Kerrisk

EXAMPLE: Add subheadings to distinguish the two example programs

malloc.3

Michael Kerrisk

Reword text referring to mallopt(3)

Linux libc is no longer "recent"; drop mention of it.

pthread_attr_setinheritsched.3

pthread_attr_setschedparam.3

pthread_attr_setschedpolicy.3

pthread_setaffinity_np.3

pthread_setschedparam.3

pthread_setschedprio.3

pthread_yield.3

pthreads.7

Michael Kerrisk

Change references to "sched_setscheduler(2)" to "sched(7)"

Change consistent with the fact that the scheduling overview
page is now sched(7) not sched_setscheduler(2).

pthread_attr_setstackaddr.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setstackaddr() and
pthread_attr_getstackaddr() are thread safe.

pthread_attr_setstacksize.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_attr_setstacksize() and
pthread_attr_getstacksize() are thread safe.

pthread_kill.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_kill() is thread safe.

pthread_kill_other_threads_np.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_kill_other_threads_np() is thread safe.

pthread_self.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_self() is thread safe.

pthread_setcancelstate.3

Michael Kerrisk

Add paragraph breaks to "Asynchronous cancelability" subsection

pthread_setcancelstate.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_setcancelstate() and pthread_setcanceltype() are thread safe.

Michael Kerrisk

NOTES: Add some subheadings

pthread_setschedparam.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_setschedparam() and pthread_getschedparam() are thread safe.

pthread_setschedprio.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_setschedprio() is thread safe.

pthread_sigmask.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_sigmask() is thread safe.

pthread_sigqueue.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_sigqueue() is thread safe.

pthread_testcancel.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_testcancel() is thread safe.

pthread_yield.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_yield() is thread safe.

remquo.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `remquo()`, `remquof()` and `remquol()` are thread safe.

rtime.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `rtime()` is thread safe.

sched_getcpu.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `sched_getcpu()` is thread safe.

stpcpy.3

Ingo Schwarze

Note some history of `stpcpy()`

Quoting Ingo:

I just noticed that the `stpcpy(3)` manual contains a speculation that appears to be untrue on closer investigation: That function did not originate in MS DOS, but in Lattice C on AmigaDOS.

Here is a patch against the git master HEAD to fix that, and add some more historical information. To provide some background and allow you to more easily verify the correctness of the patch, i'm appending my mail to misc@openbsd.org, where i'm giving some more details about the history and pointing to some primary sources. That mail also contains the (similar, but shorter) patch i just committed to the OpenBSD manual page.

strcasemp.3

Michael Kerrisk [Aurelien Jarno, Török Edwin]

Explain why `strcasemp()+strncasemp()` are also declared in `<string.h>`

See <http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=729436>

strcpy.3

Michael Kerrisk

NOTES: Add a subheading

fd.4

Michael Kerrisk [Sam Varshavchik]

Fix floppy disk device names

The naming convention shown in the page was ancient.

Now, the page is consistent with `Documentation/devices.txt`

(where it is noted that "The use of the capital letters

D, H and E for the 3.5" models have been deprecated, since

the drive type is insignificant for these devices"

proc.5

Michael Kerrisk

Document /proc/timer_stats

Michael Kerrisk

(Briefly) document /proc/timer_list

Michael Kerrisk

Add /proc/sys/kernel/{sched_rt_period_us,sched_rt_runtime_us}

Reference sched(7) for an explanation of these two files

capabilities.7

Michael Kerrisk

Mention sched_setattr(2) under CAP_SYS_NICE

cpuset.7

Michael Kerrisk

SEE ALSO: add sched(7)

credentials.7

Michael Kerrisk

Mention sched_getattr() as a place where credentials are checked

fanotify.7

Heinrich Schuchardt [Jan Kara]

BUGS: error events can be lost when reading from fanotify FD

Michael Kerrisk [Heinrich Schuchardt]

Fix description of FAN_EVENT_NEXT()

FAN_EVENT_NEXT() does not update 'meta'; rather, it returns a pointer to the next metadata structure. In addition, generally rework the description to be a bit clearer and more detailed.

Heinrich Schuchardt

Document FAN_EVENT_METADATA_LEN

ip.7

Michael Kerrisk

Note cases where an ephemeral port is used

Michael Kerrisk

Remove BUGS text on glibc failing to declare in_pktinfo

Michael Kerrisk

Clarify 'ip_local_port_range' and mention the term "ephemeral ports"

Michael Kerrisk

Note some more details about assignment of ephemeral ports

Michael Kerrisk

BUGS: ephemeral port range exhaustion is diagnosed inconsistently

Different system calls use different 'errno' values to diagnose exhaustion of the ephemeral port range.

sched.7

Michael Kerrisk

Document sched_rt_period_us and sched_rt_runtime_us /proc files
And rework and relocate the text on dealing with runaway
real-time processes.

Michael Kerrisk

Mention sched_setattr(2) in list of APIs that can change policies

Michael Kerrisk

sched_setattr(2) can also be used to set 'nice' value

Michael Kerrisk

Remove mention of sched_setscheduler() when talking about sched_priority

There are nowadays multiple ways to set sched_priority (and
in fact there always were, since we also had sched_setparam(2)).

Michael Kerrisk

SEE ALSO: Add Documentation/scheduler/sched-design-CFS.txt

Michael Kerrisk

Don't mention sched_setscheduler(2) in discussions of setting policies
In a couple of places, sched_setscheduler(2) is mentioned as the
way of setting policies. But now there is sched_setattr(2) as
well, rewrite the text in a more generic way.

Michael Kerrisk

Rework summary text describing sched_setattr(2) and sched_getattr(2)
Note that these APIs are a superset of sched_setscheduler(2)
and sched_getscheduler(2).

Michael Kerrisk

Remove crufty text relating to sched_setscheduler()
All of the removed text is in sched_setscheduler(2) and
should have been trimmed from this page.

Michael Kerrisk

SEE ALSO: Mention more files in Documentation/scheduler/ directory

==== Changes in man-pages-3.68 =====

Released: 2014-05-28, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets
in the changelog below) reports, notes, and ideas that have been
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Apologies if I missed anyone!

New and rewritten pages

localedef.1

Marko Myllynen, Richard Braakman, Alastair McKinstry, Lars Wirzenius

New page for localedef(1)

Add new page based on Debian localedef(1) page.

New and changed links

procfs.5

New link to proc.5

Since the term "procfs" is widely used, it seems reasonable to have a link from that name to proc(5).

Changes to individual pages

locale.1

Marko Myllynen

Provide a step-by-step example of how to use a custom locale

Marko Myllynen

Use LC_TELEPHONE instead of LC_MESSAGES in the example
yesstr/nostr in LC_MESSAGES are planned to be changed at some
point [1], so it's better to provide an example which won't
be obsoleted by that change.

[1] https://sourceware.org/bugzilla/show_bug.cgi?id=16975

adjtimex.2

Michael Kerrisk

Add feature test macro requirements

clone.2

Michael Kerrisk

ERRORS: add cross-reference to fork(2) for explanation of EAGAIN

fork.2

Michael Kerrisk

ERRORS: add pid_max and threads-max to EAGAIN

And rewrite text to be the same as pthread_create(3).

getrlimit.2

Michael Kerrisk

RLIMIT_NPROC is not enforced if CAP_SYS_ADMIN or CAP_SYS_RESOURCE

remap_file_pages.2

Rasmus Villemoes

Fix prototype

The pgoff argument has type size_t, not ssize_t (and in the kernel it is unsigned long).

set_mempolicy.2

Rasmus Villemoes

Fix prototype for set_mempolicy(2)

The nodemask argument is const. The return type in numaif.h is long.

swapon.2

Rasmus Villemoes

Remove header from synopsis

The <asm/page.h> header is not readily available, and the comment seems to indicate that it is for getting PAGE_SIZE. But it is never mentioned why one would need to know that, and it is in any case better obtained using sysconf(), provided by <unistd.h>.

a64l.3

Rasmus Villemoes

Fix prototype for a64l()

The argument is const, both according to POSIX and the glibc headers.

adjtime.3

Rasmus Villemoes

Add required header

The prototype for adjtime(3) is declared in <sys/time.h>.

argz_add.3

Rasmus Villemoes

Fix prototypes

Update the prototypes of argz_{delete,extract,next} to agree with glibc headers and manual.

bstring.3

Rasmus Villemoes

Fix prototypes

The length parameter `n` has type `size_t` in `bcmp()`, `bcopy()` and `bzero()`.

envz_add.3

Rasmus Villemoes

Fix prototypes

The `envz_len` parameters for `envz_entry()` and `envz_get()` are not passed by reference.

fpathconf.3

Rasmus Villemoes

Fix prototype

The path argument to `pathconf()` is `const`.

fseek.3

Rasmus Villemoes

Fix prototype

The `pos` argument to `fsetpos()` is `const`.

gcvt.3

Rasmus Villemoes

Fix prototype

The `ndigit` parameter to `gcvt()` has type `int`.

getaddrinfo_a.3

Rasmus Villemoes

Fix prototype

The pointer arguments to `gai_suspend()` are `const`.

getauxval.3

Rasmus Villemoes

Fix permissions

There doesn't seem to be any reason for `getauxval.3` to be executable...

getnameinfo.3

Rasmus Villemoes

Fix prototype

The `hostlen` and `servlen` parameters have type `socklen_t`.
(The types changed in glibc 2.2)

Michael Kerrisk

Note types of `'hostlen'`; and `'servlen'` in glibc < 2.2

getrpercent.3

Rasmus Villemoes

Fix prototype

The argument to `getrpcbyname()` is `const`.

`getrpcport.3`

Rasmus Villemoes

Add `#include` and fix prototype

The prototype for `getrpcport()` is obtained by `#include'ing` `<rpc/rpc.h>`. Also, update its prototype.

`getspnam.3`

Rasmus Villemoes

Fix prototype

The struct `spwd` argument to `putspent()` is `const`.

`getutent.3`

Rasmus Villemoes

Fix prototypes

The arguments to `getutid()`, `getutline()`, and `pututline()` are `const`.

`inet.3`

Rasmus Villemoes

Fix prototype

The parameters to `inet_makeaddr` have type `in_addr_t`.

`inet_net_pton.3`

Rasmus Villemoes

`srcfix`, `cfix`

Use a consistent style throughout the man-pages.

`key_setsecret.3`

Rasmus Villemoes

Fix prototypes

Remove `const` qualifiers from arguments to `key_decryptsession`, `key_encryptsession`, and `key_setsecret`.

`makecontext.3`

Rasmus Villemoes

Fix prototype

The second argument to `swapcontext()` is `const`.

`makedev.3`

Rasmus Villemoes

Fix prototype

`gnu_dev_makedev`, and hence its trivial macro wrapper `makedev`, takes two unsigned int parameters; this is consistent with it being the inverse of `(gnu_dev_)major/minor`, which return unsigned int.

`malloc_trim.3`

Rasmus Villemoes

Fix prototype

As mentioned further down, `malloc_trim` returns an integer.

`mq_getattr.3`

Rasmus Villemoes

Fix prototype

The `newattr` parameter to `mq_setattr` is `const`.

`newlocale.3`

Marko Myllynen

List all available category masks

Michael Kerrisk

Add `LC_ALL_MASK` description

`nl_langinfo.3`

Marko Myllynen

Expand the example code a bit

Better illustrate querying elements from different categories.

`perror.3`

Rasmus Villemoes

Fix declaration

The elements of the array `sys_errlist` are also `const`.

`pthread_attr_setaffinity_np.3`

`pthread_attr_setdetachstate.3`

`pthread_attr_setguardsize.3`

`pthread_attr_setinheritsched.3`

`pthread_attr_setschedparam.3`

`pthread_attr_setschedpolicy.3`

`pthread_attr_setscope.3`

`pthread_attr_setstack.3`

`pthread_attr_setstackaddr.3`

`pthread_attr_setstacksize.3`

Rasmus Villemoes

Constify parameters

Each of the `pthread_attr_get*` functions extract some piece of information from a `pthread_attr_t`, which is passed by `const` reference. Add the `const` keyword to the prototypes of these functions.

`pthread_cleanup_push_defer_np.3`

Michael Kerrisk [Rasmus Villemoes]

Add feature test macro requirements

`pthread_create.3`

Michael Kerrisk [Carsten Grohmann]

Add pid_max limit to EAGAIN error cases

pthread_equal.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_equal() is thread safe.

pthread_exit.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_exit() is thread safe.

pthread_getcpuclockid.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function pthread_getcpuclockid() is thread safe.

pthread_setaffinity_np.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_setaffinity_np() and pthread_getaffinity_np() are thread safe.

pthread_setconcurrency.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions pthread_setconcurrency() and pthread_getconcurrency() are thread safe.

pthread_setname_np.3

Rasmus Villemoes

Fix prototype

The name parameter of pthread_getname_np is an output parameter and hence not const.

pthread_setschedparam.3

Rasmus Villemoes

Fix prototypes

Add return type for pthread_{s,g}etschedparam.

pthread_setschedprio.3

Rasmus Villemoes

Fix prototype

Add return type for pthread_setschedprio.

pthread_sigqueue.3

Rasmus Villemoes

Add missing #include <signal.h>

rcmd.3

Rasmus Villemoes

Fix prototypes

Unlike the BSDs, the second argument of `rcmd()` and `rcmd_af()` has type `unsigned short`.

The first argument of `iruserok_af()` has type `const void*`.

re_comp.3

Rasmus Villemoes

Fix prototypes

`re_comp` and `re_exec` take `const char*` arguments.

resolver.3

Rasmus Villemoes

Fix prototypes and extern-declaration

Fix `const`- and signedness of various `char*` parameters.

Also, there is no "struct state", but `_res` is a struct `__res_state`. (Actually, `_res` is `errno`-like in that it is really a macro expanding to `(*__res_state())`.)

rexec.3

Rasmus Villemoes

Fix prototypes

The `user`, `passwd` and `cmd` arguments to `rexec` and `rexec_af` are all `const`.

rtime.3

Rasmus Villemoes

Replace header

The header `<rpc/des_crypt.h>` does not provide `rtime()`; `<rpc/auth_des.h>` does, as is also implied in both the `NOTES` and `EXAMPLE` sections.

scandir.3

Rasmus Villemoes

Fix prototypes

The `alphasort` and `versionsort` functions take arguments of type `const struct dirent**`, not `const void*`.

setlocale.3

Michael Kerrisk [Marko Myllynen]

Simplify locale category listing and add GNU-specific locale categories

Some information that was here will move to `locale(7)`.

Marko Myllynen

Remove now obsolete `NOTES` section

setnetgrent.3

Rasmus Villemoes

Fix prototype

The buflen argument to getnetgrent_r has type size_t.

sigvec.3

Rasmus Villemoes

Fix prototype

The vec argument to sigvec is const.

tsearch.3

Rasmus Villemoes

Fix prototype

The rootp argument to tfind is "void * const *",
not "const void **".

core.5

Michael Kerrisk

Core dump files are nowadays core.pid by default

locale.5

Marko Myllynen

Document mon_grouping and grouping properly

Michael Kerrisk

Note default value for 'first_workday'

Michael Kerrisk [Marko Myllynen]

Add brief descriptions of collating-element and collating-symbol

Marko Myllynen

t_fmt_ampm is needed only for locales that employ AM/PM convention

Michael Kerrisk [Marko Myllynen]

Remove crufty reference to /usr/lib/nls/src

That file is nowhere to be found

Marko Myllynen

Clarify LC_TIME/am_pm and LC_NAME keywords usage

am_pm should be defined only if AM/PM convention is used to signal
applications they should not try to print them when using them in
unwanted.

Same for all LC_NAME keywords expect for name_fmt which should be
always defined.

Marko Myllynen

Clarify lang_term / lang_lib

As noted by Keld Simonsen in the lib-locales@sourceware mailing
list:

<https://sourceware.org/ml/libc-locales/2014-q2/msg00008.html>

From: Keld Simonsen <keld at rap dot rap dot dk>

To: Marko Myllynen <myllynen at redhat dot com>

Date: Tue, 29 Apr 2014 17:02:09 +0200

lang_term reflects ISO 639-2/T (terminology) codes, while
lang_lib reflects ISO 639-2/B (bibliographic) codes.
lang_term is preferred over lang_lib codes for locale names.
There are 20 specific ISO 639-2/B codes.

Marko Myllynen

Correct the FILES section

proc.5

Michael Kerrisk

'pid_max' is a system-wide limit on number of threads and processes
Since PIDs > /proc/sys/kernel/pid_max are not allocated, this
file thus also imposes a system-wide limit on the number of
threads and processes.

capabilities.7

Michael Kerrisk

CAP_SYS_ADMIN allows overriding RLIMIT_NPROC

Michael Kerrisk

CAP_SYS_PTRACE allows process_vm_readv(2) and process_vm_writev(2)

charsets.7

Michael Kerrisk [Marko Myllynen]

Remove crufty statement that Romanian may be switching to ISO 8859-16

Michael Kerrisk

Remove ancient paragraph on charsets supported in glibc 2.3.2
That test is rather ancient, and probably of little use.

fanotify.7

Heinrich Schuchardt

Fix to example program: fanotify read() should use aligned buffer

inotify.7

Heinrich Schuchardt

Add example program

This example of the usage of the inotify API shows the
usage of inotify_init1(2) and inotify_add_watch(2) as well
as polling and reading from the inotify file descriptor.

Heinrich Schuchardt

munmap() does not generate inotify events

locale.7

Marko Myllynen [Michael Kerrisk]

Document the LOCPATH environment variable

Michael Kerrisk

Add further details on various categories

===== Changes in man-pages-3.69 =====

Released: 2014-06-14, Munich

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

iconv.1

Marko Myllynen [Michael Kerrisk]
New page for the iconv(1) command

iconvconfig.8

Marko Myllynen
New page for iconvconfig(8)

Newly documented interfaces in existing pages

fcntl.2

Jeff Layton, Michael Kerrisk

Document open file description locks

As provided by the fcntl() operations F_OFD_SETLK,
F_OFD_SETLKW, and F_OFD_GETLK

Changes to individual pages

locale.1

Marko Myllynen

Add FILES section, add charmap(5) reference

Marko Myllynen

Align with recent charmap(5) / repertoiremap(5) changes

execve.2

Michael Kerrisk [NeilBrown]

Before kernel 2.6.0, RLIMIT_NPROC had no effect for set*uid()

Michael Kerrisk [Vasiliy Kulikov]

RLIMIT_NPROC is checked only if preceded by set*uid()

Michael Kerrisk [Vasiliy Kulikov, NeilBrown, KOSAKI Motohiro]

Document EAGAIN error

See also https://bugzilla.kernel.org/show_bug.cgi?id=42704

fcntl.2

Michael Kerrisk

Detail the limitations of traditional (process-associated) locks

Michael Kerrisk [Jeff Layton]

Describe how to check whether the kernel supports a particular command

Michael Kerrisk

ERRORS: add EINVAL for invalid 'cmd'

Michael Kerrisk

Add para introducing advisory locks and noting existence of OFD locks

Michael Kerrisk [Jeff Layton]

Add notes on F_SETLKW deadlock detection and its limitations

Michael Kerrisk

Add an explicit note that mandatory locking is not in POSIX

Michael Kerrisk

Rewrite introductory paragraphs on mandatory locking

Make the structure more logical, and also explicitly mention
OFD locks.

Michael Kerrisk [Jeff Layton]

Reword discussion of mandatory lock bug a little

Jeff Layton confirmed that the bug remains even in modern kernels.

Michael Kerrisk

Explain POSIX background to EACCES/EAGAIN error for F_GETLK

Michael Kerrisk

Add NOTES subhead for record locking and NFS

Michael Kerrisk [NeilBrown]

Note treatment of locks when an NFS client loses contact with the server

Michael Kerrisk [Jeff Layton]

nfsv4leasetime controls the "contact lost" interval for NFSv4

flock.2

Michael Kerrisk

In some modern BSDs, fcntl() and flock() locks do interact

So, reword and extend the discussion of this topic in NOTES.

Michael Kerrisk

Move NOTES text describing implementation of flock()

Michael Kerrisk [NeilBrown]

Add more details on NFS, including Linux 2.6.37 changes

Also: move NOTES text describing interaction of fcntl()
and flock() locks.

fork.2

Michael Kerrisk

Add notes on inheritance of flock() and OFD locks across fork()

lseek.2

Michael Kerrisk

Add reference to open(2) for discussion of file descriptors and OFDs

open.2

Michael Kerrisk

Rework and extend the discussion of open file descriptions

open_by_handle_at.2

Rasmus Villemoes

Add reference to feature_test_macros(7)

recvmsg.2

Rasmus Villemoes

Add reference to feature_test_macros(7)

remap_file_pages.2

Michael Kerrisk [Kirill A. Shutemov]

Note that remap_file_pages() is deprecated

sendmsg.2

Rasmus Villemoes

Add reference to feature_test_macros(7)

setuid.2

Michael Kerrisk

setuid() and setegid() are implemented as library functions

Michael Kerrisk

Error checking should always be performed, even when caller is UID 0

setresuid.2

Michael Kerrisk

Document EAGAIN error that can occur after kernel alloc_uid() failure

Michael Kerrisk

Since Linux 3.1, the EAGAIN case for RLIMIT_NPROC no longer occurs

Michael Kerrisk

Correct the description of the EAGAIN error

Michael Kerrisk

Error checking should always be performed, even when caller is UID 0

setreuid.2

Michael Kerrisk

Document EAGAIN error that can occur after kernel alloc_uid() failure

Michael Kerrisk

Error checking should always be performed, even when caller is UID 0

Michael Kerrisk

Add EAGAIN error for hitting RLIMIT_NPROC limit

Michael Kerrisk

Since Linux 3.1, the EAGAIN case for RLIMIT_NPROC no longer occurs

setuid.2

Michael Kerrisk

Document EAGAIN error that can occur after kernel alloc_uid() failure

Michael Kerrisk

Correct the description of the EAGAIN error

Michael Kerrisk

Error checking should always be performed, even when caller is UID 0

Michael Kerrisk

Since Linux 3.1, the EAGAIN case for RLIMIT_NPROC no longer occurs

statfs.2

Cyril Hrubis

Update MAGIC constants

Most of the updates are taken from /usr/include/linux/magic.h,
some were found by grepping the Linux source code.

Cyril Hrubis [Michael Kerrisk]

fstatfs(2) was broken on file descriptors from pipe(2)

syscalls.2

Michael Kerrisk

Note that remap_file_pages() is deprecated

basename.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions `basename()` and `dirname()` are thread safe.

catgets.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `catgets()` is thread safe.

getdate.3

Rasmus Villemoes

Use blank definition of `_GNU_SOURCE` in example program

getdirentries.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `getdirentries()` is thread safe.

getdtablesize.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `getdtablesize()` is thread safe.

iconv.3

Qian Lei [Peng Haitao]

ATTRIBUTES: Note function that is thread-safe

The function `iconv()` is thread safe.

Michael Kerrisk

SEE ALSO: `add iconvconfig(8)`

lockf.3

Qian Lei [Peng Haitao]

ATTRIBUTES: Note function that is thread-safe

The function `lockf()` is thread safe.

malloc_get_state.3

Rasmus Villemoes

SYNOPSIS: use correct header

The nonstandard functions `malloc_set_state()` and `malloc_get_state()` are provided by `<malloc.h>` not `<stdlib.h>`.

malloc_usable_size.3

Qian Lei

ATTRIBUTES: Note function that is thread-safe

The function `malloc_usable_size()` is thread safe.

matherr.3

Qian Lei [Peng Haitao]

ATTRIBUTES: Note function that is thread-safe

The function `matherr()` is thread safe.

mkdtemp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function mkdtemp() is thread safe.

mkstemp.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions mkstemp(), mkostemp(), mkstemps() and mkostemps() are thread safe.

mq_close.3

Qian Lei

ATTRIBUTES: Note function that is thread-safe

The function mq_close() is thread safe.

mq_getattr.3

Qian Lei

ATTRIBUTES: Note function that is thread-safe

The functions mq_getattr() and mq_setattr() are thread safe.

mq_open.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function mq_open() is thread safe.

mq_receive.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions mq_receive() and mq_timedreceive() are thread safe.

mq_send.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions mq_send() and mq_timedsend() are thread safe.

mq_unlink.3

Qian Lei

ATTRIBUTES: Note function that is thread-safe

The function mq_unlink() is thread safe.

posix_fallocate.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function posix_fallocate() is thread safe.

posix_openpt.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `posix_openpt()` is thread safe.

siginterrupt.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe

The function `siginterrupt()` is not thread safe.

system.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function `system()` is thread safe.

charmap.5

Marko Myllynen

Update to match current glibc

`charmap(5)` was outdated, bring it to closer to reality by fixing syntax descriptions to match current glibc code and practices, adding missing options, removing obsolete comments and references, and removing now incorrect examples.

locale.5

Marko Myllynen

Clarify AM/PM settings a bit

`localedef(1)` complains if really undefined, should be empty instead.

Also: add some SEE ALSO references.

Marko Myllynen

Document glibc conventions regarding days and week

Based on existing practice and glibc community wiki page at

<https://sourceware.org/glibc/wiki/Locales>

proc.5

Michael Kerrisk [Jan Chaloupka, Walter Harms]

Add a brief description of `/proc/fs`

repertoiremap.5

Marko Myllynen

New page for `repertoiremap(5)`

Rather obsolete feature but `localedef(1)` refers to `repertoiremaps`.

bootparam.7

Petr Gajdos

Describe 'rootflags' and 'rootdelay' kernel parameters

Patch based on text from `Documentation/kernel-parameters.txt`

charsets.7

Marko Myllynen

Update to reflect past developments

Rewrite the introduction to make Unicode's prominence more obvious.

Reformulate parts of the text to reflect current Unicode world.

Minor clarification for ASCII/ISO sections, some other minor fixes.

Marko Myllynen

List CJK encodings in the order of C, J, K

environ.7

Michael Kerrisk

SEE ALSO: add env(1), printenv(1), ld.so(8)

locale.7

Marko Myllynen

Add some SEE ALSO references

man-pages.7

Michael Kerrisk

Note that .TH 'date' field is nowadays automatically updated by scripts

signal.7

Michael Kerrisk

Describe EINTR semantics for recvmsg(2)

Michael Kerrisk

Clarify text describing EINTR semantics for socket interfaces

unicode.7

Marko Myllynen

Update to reflect past developments

The unicode(7) page will look more modern with few small changes:

- drop old BUGS section, editors cope with UTF-8 ok these days, and perhaps the state-of-the-art is better described elsewhere anyway than in a man page
- drop old suggestion about avoiding combined characters
- refer to LANANA for Linux zone, add registry file reference
- drop a reference to an inactive/dead mailing list
- update some reference URLs

utf-8.7

Marko Myllynen

Drop an old comment about UTF-8 replacing ISO 8859

And add locale(1) under SEE ALSO.

==== Changes in man-pages-3.70 =====

Released: 2014-07-08, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

sprof.1

Michael Kerrisk [Marko Myllynen]
New page for the glibc sprof(1) command

Newly documented interfaces in existing pages

epoll_ctl.2

NeilBrown
Document EPOLLWAKEUP

epoll.7

NeilBrown
Document EPOLLWAKEUP

Changes to individual pages

iconv.1

iconvconfig.8

Marko Myllynen

Clarify gconv file terminology a bit

ldd.1

Michael Kerrisk

SEE ALSO: add sprof(1)

connect.2

Michael Kerrisk

ERRORS: add EPROTOTYPE

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=708394>

dup.2

Michael Kerrisk [Rich Felker]

Fix erroneous discussion regarding closing 'newfd' before calling dup2()

And propose a workaround if the caller cares about catching
close() time errors.

See http://stackoverflow.com/questions/23440216/race-condition-when-using-dup2#comment36888604_23444465

and <http://austingroupbugs.net/view.php?id=411>

Michael Kerrisk

Rework and enhance discussion of dup2()

In particular, note that dup2() performs the steps of closing
and reusing 'newfd' atomically.

Michael Kerrisk

Add subhead for dup3()

epoll_ctl.2

Michael Kerrisk

BUGS: EPOLLWAKEUP is silently ignored without CAP_BLOCK_SUSPEND

If the caller does not have CAP_BLOCK_SUSPEND, then EPOLLWAKEUP
is silently ignored.

fcntl.2

Michael Kerrisk [Tomi Salminen]

The return value for F_SETPPIPE_SZ is the pipe capacity

Michael Kerrisk

ERRORS: Document ENOTDIR error for F_NOTIFY

Michael Kerrisk

Use proper page cross-references in F_NOTIFY discussion

Michael Kerrisk

Suggest the use of real-time signals with F_NOTIFY

getitimer.2

Michael Kerrisk

Rewrite a few pieces to clarify some details

inotify_add_watch.2

Michael Kerrisk

Clarify that the target of a watch is an i-node

The target of a watch is an i-node, not a pathname. Clarify the text to prevent the reader possibly misunderstanding that establishing watches by two different links to the same file might create different watch descriptors.

open.2

Michael Kerrisk []

O_CLOEXEC is also one the flags not ignored when O_PATH is specified

pipe.2

Elie De Brauwier

PIPE_BUF is defined in limits.h

To make use of PIPE_BUF in an application one should include <limits.h>. Adding a reference to this inclusion.

poll.2

Michael Kerrisk [Nadav Har'El]

The negate-fd-to-ignore technique does not work for file descriptor 0

See https://bugzilla.kernel.org/show_bug.cgi?id=79411

set_tid_address.2

Michael Kerrisk [Rich Felker]

Use "thread" rather than "process" in DESCRIPTION

Michael Kerrisk

SEE ALSO: add gettid(2)

shmop.2

Michael Kerrisk

Explain SHMLBA in much more detail

splice.2

Michael Kerrisk

Document EAGAIN error

See https://bugzilla.kernel.org/show_bug.cgi?id=48641

syscalls.2

Carlos O'Donell

Add prlimit64(2)

While trying to reconcile the new features in glibc with the documented entries in the linux kernel man pages I noticed that glibc exports prlimit64 for use by 32-bit applications (as does

the linux kernel), but that prlimit64 was not defined in the syscalls list or in the prlimit-related page.

This is not the complete fix for this, but I don't have the time to explain why and when prlimit64 should be used (or how it should be used safely). Therefore I'm just patching the syscalls.2 list to show that prlimit64 exists and was added in 2.6.36 (verified with git by checking out the tags before and after).

syslog.2

Michael Kerrisk

Rework introductory paragraph

Michael Kerrisk [Robert P. J. Day]

Rework text describing loglevels

The kernel header file mentioned in the discussion of the KERN_* constants has morphed and is no longer exported inside glibc. And the definitions of the constants themselves changed subtly with kernel commit 04d2c8c83d0e3ac5f78aeede51babb3236200112. So, rewrite the description of the constants to be a bit more abstract.

Michael Kerrisk

Rewrite parts of the page, and import /proc/sys/kernel/printk

- * Move /proc/sys/kernel/printk from proc(5) to this page, and correct various details in the discussion of that file.
- * Rewrite and correct various other details on the page.
- * Clean out some crufty text.
- * Miscellaneous minor fixes.

Michael Kerrisk

Update SYSLOG_ACTION_CONSOLE_OFF + SYSLOG_ACTION_CONSOLE_ON description
Details changed in Linux 2.6.32

tee.2

Michael Kerrisk

Document EAGAIN error

See https://bugzilla.kernel.org/show_bug.cgi?id=48641

vmsplice.2

Michael Kerrisk

Document EAGAIN error

See https://bugzilla.kernel.org/show_bug.cgi?id=48641

ether_aton.3

Michael Kerrisk

Make description of ether_line() bug a little more informative

mallopt.3

Michael Kerrisk [Florian Weimer]

MALLOC_MMAP_THRESHOLD_ and MALLOC_MMAP_MAX_ *do* work in setgid programs

My testing on this point was bogus, overlooking details of strace(1)'s behavior with setuid programs.

See https://sourceware.org/bugzilla/show_bug.cgi?id=12155

printf.3

Michael Kerrisk [Rich Felker]

Remove libc4 and libc5 details

Rich Felker noted that "scare text" in the man page warned about the use of snprintf() on libc, and that some people had cited this as a reason not to use snprintf(). Linux libc is now ancient history, so there is no real need to keep that text. But, while we're at it, we may as well clear out all of the other ancient libc4 and libc5 pieces in the page. They are nowadays more clutter than help.

Michael Kerrisk

SUSv3 and later agree with C99 for the snprintf() return value

Determined by inspection of the SUSv3 and SUSv4 specifications.

Michael Kerrisk

Remove some old text about glibc 2.0 changes

We probably don't now need such ancient info.

Michael Kerrisk

Update references to standards for C and S conversion specifiers

profil.3

Michael Kerrisk

SEE ALSO: add sprofl(1)

charmap.5

Marko Myllynen

Various minor updates and improvements

- more precise title
- extend description a bit
- document previously omitted WIDTH_DEFAULT

Marko Myllynen

Remove accidental ISO C compliance reference

glibc refers in locale/programs/charmap.c to ISO C 99 section 7.17.(2) and ISO C 99 section 5.2.1.(3) that if a character map is not ASCII compatible then the locale using it is not ISO C compliant. This does not state anything about the character set itself.

proc.5

Michael Kerrisk

Replace /proc/sys/kernel/printk discussion with reference to syslog(2)

It makes more sense to have the /proc/sys/kernel/printk with the related material in syslog(2).

Michael Kerrisk

Rewrite /proc/sys/kernel/printk description

inotify.7

Michael Kerrisk

Clarify which events are generated for watched directories

Really, with respect to watched directories, events fall into three classes (not two, as was shown):

- * Events that can be generated only for the watched directory.
- * Events that can be generated only for objects that are inside the watched directory.
- * Events that can be generated both for the watched directory and for objects inside the directory.

So, mark these three classes more clearly in the list of inotify events.

Heinrich Schuchardt [Michael Kerrisk]

BUGS: Note possible bug triggered by watch descriptor reuse

Watch descriptor IDs are returned by inotify_add_watch().

When calling inotify_rm_watch() an IN_IGNORED is placed on the inotify queue pointing to the ID of the removed watch.

inotify_add_watch() should not return a watch descriptor ID for which events are still on the queue but should return an unused ID.

Unfortunately, the existing Kernel code does not provide such a guarantee.

Actually, in rare cases watch descriptor IDs are returned by inotify_add_watch() for which events are still on the inotify queue.

See https://bugzilla.kernel.org/show_bug.cgi?id=77111

Michael Kerrisk

Add further detail to the watch descriptor reuse bug

As well as inotify_rm_watch(), file deletion and unmounting a filesystem can also cause a watch descriptor to be deleted.

Michael Kerrisk

The watch descriptor reuse bug may be hard to hit in practice

Explain the circumstances in detail, indicating that the bug may be very unlikely to occur in practice.

Michael Kerrisk

Clarify description of IN_EXCL_UNLINK

Clarify the text a little, in particular making it clearer that the target of a watch is an i-node (not a pathname).

Michael Kerrisk

Clarify IN_ONESHOT explanation

Make it clearer that the target of monitoring is an i-node,
not a pathname.

Michael Kerrisk

Make comment on 'mask' field more accurate

libc.7

Michael Kerrisk

Clarify man-pages policy on documenting C libraries other than glibc

Michael Kerrisk

Use absolute dates in discussion of libc vs glibc

pipe.7

Elie De Brauer

Add reference that the pipe capacity can be changed

In `fcntl(2)` `F_SETPIPE_SZ`, `F_GETPIPE_SZ` and
`/proc/sys/fs/pipe-max-size` are defined, however
`pipe(7)` still defines the pipe capacity as being
a static entity. Adding a reference to `fcntl(2)`.

Michael Kerrisk [Walter Harms]

Clarify that since 2.6.35, 65535 bytes is the default pipe capacity

ld.so.8

Michael Kerrisk

Clarify that `LD_PROFILE` can specify just a single shared object

Michael Kerrisk

Clarify that `LD_PROFILE` output is appended to target file

The `LD_PROFILE` output is appended to any existing
contents of the target file.

Michael Kerrisk

SEE ALSO: add `sprof(1)`

==== Changes in man-pages-3.71 =====

Released: 2014-08-17, Chicago

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Apologies if I missed anyone!

New and rewritten pages

group_member.3

Michael Kerrisk

New page documenting group_member(3)

isfdtype.3

Michael Kerrisk

New page documenting isfdtype(3)

Newly documented interfaces in existing pages

perf_event_open.2

Vince Weaver

Document new comm_exec flag

Linux 3.16 (more specifically, commit 82b897782d10fcc4)
added support for differentiating between process renames
caused by exec versus those caused by other methods.

Vince Weaver

Document new mmap2 record type

Linux 3.16 (more specifically, commit a5a5ba72843dd05f9)
enabled the enhanced mmap2 record support.
The interface was added in Linux 3.12 but disabled until
Linux 3.16.

Vince Weaver

Document PERF_SAMPLE_BRANCH_COND

Linux 3.16 (more specifically, commit bac52139f0b7ab31330)
adds support for gathering PERF_SAMPLE_BRANCH_COND
conditional branch values when doing PERF_SAMPLE_BRANCH_STACK
sampling.

proc.5

Michael Kerrisk

Document /proc/PID/comm

Michael Kerrisk

Document /proc/PID/pagemap

Michael Kerrisk

Document /proc/PID/personality

Michael Kerrisk

Document /proc/PID/syscall

Michael Kerrisk

Document /proc/kpagecount

Michael Kerrisk

Document /proc/kpageflags

Michael Kerrisk

Document /proc/sys/vm/overcommit_kbytes

capabilities.7

Michael Kerrisk

Add CAP_AUDIT_READ

CAP_AUDIT_READ is new in Linux 3.16.

Global changes

ldd.1

clone.2

execve.2

getpagesize.2

ioperm.2

msgop.2

readv.2

recv.2

select.2

send.2

seteuid.2

shmop.2

signal.2

sync.2

sysinfo.2

utime.2

abs.3

atoi.3

catopen.3
clearenv.3
ctime.3
des_crypt.3
ecvt.3
flockfile.3
fseeko.3
ftime.3
ftok.3
ftw.3
getcwd.3
getdtablesize.3
getline.3
getpass.3
getpass.3
gettutent.3
glob.3
insque.3
lseek64.3
memmem.3
mkstemp.3
mktemp.3
on_exit.3
openpty.3
putenv.3
putenv.3
qecvt.3
realpath.3
realpath.3
remove.3
setbuf.3
sigpause.3
strftime.3
strptime.3
tzset.3
xcrypt.3
utmp.5
environ.7
ipv6.7
packet.7

Michael Kerrisk

Remove ancient Linux libc details

access.2
brk.2
chmod.2
eventfd.2
gethostname.2

getpriority.2
mmap.2
poll.2
ptrace.2
readv.2
sched_setaffinity.2
select.2
seteuid.2
signalfd.2
sync_file_range.2
timer_create.2
uname.2
wait.2

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

Changes to individual pages

access.2

Michael Kerrisk

Glibc falls back to using access() on kernels that lack faccessat()

bdflush.2

fsync.2

sync.2

proc.5

Adrian Bunk

Change "sync(1)" to "sync(8)"

bind.2

Michael Kerrisk [Ryan Hammonds]

Correct EINVAL error description

As pointed out by Ryan:

My application is trying to bind an IPv4 UDP socket to an address. I've found that passing an invalid address length to bind() causes bind to return EINVAL. According to the bind(2) manpage, this should only occur when using unix domain sockets (which I am not).

chmod.2

Michael Kerrisk

Glibc falls back to chmod() on kernels that don't support fchmodat()

Michael Kerrisk

Glibc falls back to chown()/lchown() on kernels that lack fchownat()

epoll_wait.2

Michael Kerrisk

NOTES: describe raw epoll_pwait() system call differences

getgroups.2

Michael Kerrisk

SEE ALSO: add group_member(3)

getpriority.2

Michael Kerrisk

Enhance discussion of kernel nice range versus user-space nice range

Michael Kerrisk

Move text describing nice range on other systems

getrlimit.2

Michael Kerrisk

Add cross reference to core(5) in discussion of RLIMIT_CORE

Michael Kerrisk

Describe the "large" resource limit bug on 32-bit platforms

See https://bugzilla.kernel.org/show_bug.cgi?id=5042.

Michael Kerrisk

Glibc's setrlimit() and getrlimit() are implemented using prlimit()

kexec_load.2

Michael Kerrisk

Note limit of 16 for 'nr_segments'

Michael Kerrisk

Clarify the 'flags' bits that contain the architecture

Michael Kerrisk

Add KEXEC_ARCH_68K to list of architectures for 'flags'

Michael Kerrisk

Reword description of 'flags' a little

link.2

Michael Kerrisk

Glibc falls back to link() on kernels that lack linkat()

Unless 'flags' contains AT_SYMLINK_FOLLOW.

mkdir.2

Michael Kerrisk

Glibc falls back to mkdir() on kernels that don't support mkdirat()

perf_event_open.2

Vince Weaver

Clarify PERF_SAMPLE_STACK_USER usage

This clarifies the PERF_SAMPLE_STACK_USER section.

I found these issue while implementing some code that uses

the option. The important change is fixing the name of the

sample_stack_user parameter, the rest is just some wording fixes and minor clarifications.

Vince Weaver

Clarify PERF_SAMPLE_DATA_SRC usage

When checking the fields in the PERF_SAMPLE_DATA_SRC type samples you need to shift the masks before doing the compare.

Although the value you are checking (perf_mem_data_src) is specified as a bitfield so this might all fall apart if trying to access the field in a cross-endian way. The Power people were working on this issue, not sure if they resolved it.

poll.2

Michael Kerrisk

Describe fifth argument (sigsetsize) of raw ppoll() system call

process_vm_readv.2

Michael Kerrisk [Ville Ylenius]

Fix typo in example program

readlink.2

Michael Kerrisk

Glibc falls back to readlink() on kernels that lack readlinkat()

recv.2

Michael Kerrisk

'addrlen' should be NULL (not 0) if we don't need sender address

rename.2

Michael Kerrisk

Glibc falls back to rename() when the kernel doesn't have renameat()

sigwaitinfo.2

Michael Kerrisk

The raw sigtimedwait() system call has a fifth argument

symlink.2

Michael Kerrisk

Glibc falls back to symlink() on kernels that lack symlinkat()

sysinfo.2

Michael Kerrisk

Add VERSIONS section

unlink.2

Michael Kerrisk

Glibc falls back to unlink() or rmdir() on kernels that lack unlinkat()

atoi.3

Michael Kerrisk

Downgrade discussion of atoaq()

Remove most references to atoaq() in this page, since this function was present only in Linux libc (not glibc).

cerf.3

cexp2.3

clog2.3

Michael Kerrisk

Update version number on "Not yet in glibc" sentence

fgetgrent.3

getgrent.3

getgrent_r.3

getgrnam.3

Michael Kerrisk [Rob Landley]

Clarify that 'gr_mem' is a NULL-terminated array of pointers

fseeko.3

Michael Kerrisk

Add VERSIONS section

ftw.3

Michael Kerrisk

Add VERSIONS section

getauxval.3

Michael Kerrisk

Document ENOENT error

And add an entry to BUGS explaining the ambiguity that was present before the addition of this error.

getgrouplist.3

Michael Kerrisk

SEE ALSO: add group_member(3)

getline.3

Rahul Bedarkar

Close opened file at end of example program

memmem.3

Michael Kerrisk

Rewrite text of glibc 2.0 bug

printf.3

Michael Kerrisk [Jakub Wilk]

Clarify details of the %n conversion specifier

See <http://bugs.debian.org/756602>

Michael Kerrisk [Jakub Wilk]

Note use of 'j', 'z', and 't' length modifiers for '%n'

See <http://bugs.debian.org/756602>

Michael Kerrisk

Update with some SUSv3 details

setbuf.3

Michael Kerrisk

Remove ancient Linux libc and 4.x BSD details

strstr.3

Michael Kerrisk

Remove discussion of Linux libc bugs

Linux libc is old enough that we needn't care any longer.

strtod.3

Michael Kerrisk

Explain NAN(n-char-sequence)

strtod.3

Michael Kerrisk

SEE ALSO: add nan(3), nanf(3), NANL(3)

updwtmp.3

Michael Kerrisk

Replace AVAILABILITY section with note to link logwtmp() using -lutil

Linux libc details are no longer needed these days.

core.5

Rahul Bedarkar

Close opened file in example program

proc.5

Michael Kerrisk

Fix kernel version numbers for /proc/PID/stat fields

proc.5

Jan Chaloupka

Add missing proc stats fields

Adding missing proc stats fields from

<https://www.kernel.org/doc/Documentation/filesystems/proc.txt>

Michael Kerrisk [Simon Paillard]

Remove crufty text under 'timer_stats'

Michael Kerrisk

Update /proc/PID/stat 'state' field documentation

Michael Kerrisk

Improve description of /proc/PID/stat fields added in Linux 3.3 and 3.5

Michael Kerrisk

Refer to getauxval(3) in discussion of /proc/PID/auxv

Michael Kerrisk

Rework formatting of /proc/PID/stat list

Make the field numbers more prominent.

Michael Kerrisk

Note that /proc/PID/cmdline is read-only

Michael Kerrisk

Rework discussion of CommitLimit and /proc/sys/vm/overcommit_memory

Michael Kerrisk

Improve discussion of /proc/sys/vm/overcommit_ratio

charsets.7

David Prévot [Marko Myllynen]

Tidy up list

Remove German from main list, to be consistent with earlier removal of Dutch and French (in commit a8ed5f7430e0d1).

inotify.7

Michael Kerrisk

Note that IN_ONLY_DIR can be used to avoid races

Michael Kerrisk

Note that insertion of IN_MOVED_FROM+IN_MOVED_TO pair is not atomic

Michael Kerrisk

Mention use of timeout when reading IN_MOVED_TO after IN_MOVED_FROM

man-pages.7

Michael Kerrisk

Add description of "C library/kernel ABI differences" subsection

Michael Kerrisk

Rework text describing sections (stylistic improvements)

vdso.7

Mike Frysinger

Add new i386 vdso symbols in Linux 3.15

Michael Kerrisk

Note kernel version that exports new i386 symbols (Linux 3.15)

==== Changes in man-pages-3.72 =====

Released: 2014-09-07, Mountain View

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The following people contributed patches/fixes or (noted in brackets

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Apologies if I missed anyone!

New and rewritten pages

memusage.1

Peter Schiffer, Michael Kerrisk [Jan Chaloupka]
New page for glibc memusage(1) command

memusagestat.1

Peter Schiffer [Jan Chaloupka, Michael Kerrisk]
New page for glibc memusagestat(1) command

mtrace.1

Peter Schiffer [Jan Chaloupka]
New page describing the glibc mtrace(1) command

Changes to individual pages

connect.2

Michael Haardt
Note that a new socket should be used if connect() fails

fcntl.2

Michael Kerrisk
One must define `_GNU_SOURCE` to get the `F_OFD_*` definitions

poll.2, select.2

Rusty Russell
Fix erroneous description of "available for write".
POSIX says: "POLLOUT Normal data may be written without blocking.". This "may" is misleading, see the POSIX write page:

Write requests to a pipe or FIFO shall be handled in the same way as a regular file with the following exceptions:

...

If the `O_NONBLOCK` flag is clear, a write request may cause the thread to block, but on normal completion it shall return `nbyte`.

...

When attempting to write to a file descriptor (other than a pipe or FIFO) that supports non-blocking writes and cannot accept the data immediately:

If the `O_NONBLOCK` flag is clear, `write()` shall block the calling thread until the data can be accepted.

If the `O_NONBLOCK` flag is set, `write()` shall not block the thread. If some data can be written without blocking the thread, `write()` shall write what it can and return the number of bytes written. Otherwise, it shall return `-1` and set `errno` to `[EAGAIN]`.

The net result is that `write()` of more than 1 byte on a socket, pipe or FIFO which is "ready" may block: `write()` (unlike `read!`) will attempt to write the entire buffer and only return a short write under exceptional circumstances.

Indeed, this is the behaviour we see in Linux:

<https://github.com/rustyruessell/ccan/commit/897626152d12d7fd13a8feb36989eb5c8c1f3485>
<https://plus.google.com/103188246877163594460/posts/BkTGTMHDFgZ>

errno.3

Michael Kerrisk

SEE ALSO: `add_errno(1)`

rtnetlink.3

Holger Hans Peter Freyther

Fix parameters for the `send()` call in the example

inotify.7

Michael Kerrisk

`IN_OPEN` and `IN_CLOSE_NOWRITE` can also occur for directories

Michael Kerrisk

`IN_CLOSE_WRITE` occurs only for files (not monitored directory)

Michael Kerrisk

`IN_MODIFY` is generated for files only (not monitored directories)

Michael Kerrisk

`IN_ACCESS` occurs only for files inside directories

IN_ACCESS does not occur for monitored directory.

packet.7

Sorin Dumitru

Fix include file

It looks like most of the socket options from this man pages are not defined in <netpacket/packet.h>. They are defined in <linux/if_packet.h> so we should include that one.

===== Changes in man-pages-3.73 =====

Released: 2014-09-21, Munich

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Apologies if I missed anyone!

New and rewritten pages

namespaces.7

Michael Kerrisk [Eric W. Biederman]

New page providing overview of Linux namespaces

pid_namespaces.7

Michael Kerrisk [Eric W. Biederman, Vasily Kulikov, Rob Landley,

Serge Hallyn]

New page describing PID namespaces

user_namespaces.7

Michael Kerrisk [Eric W. Biederman, Andy Lutomirski, Serge Hallyn]

New page describing user namespaces.

Newly documented interfaces in existing pages

clone.2

Eric W. Biederman [Michael Kerrisk]

Document CLONE_NEWUSER for creating a new user namespace

setns.2

Eric W. Biederman, Michael Kerrisk

Document the PID, user, and mount namespace support

Document CLONE_NEWPID, CLONE_NEWUSER, and CLONE_NEWNS flags.

unshare.2

Michael Kerrisk [Eric W. Biederman]

Document CLONE_NEWPID

Michael Kerrisk [Eric W. Biederman]

Document CLONE_NEWUSER

Michael Kerrisk

Document CLONE_THREAD, CLONE_SIGHAND, and CLONE_VM

Changes to individual pages

clone.2

Michael Kerrisk

Move some CLONE_NEWNET text to namespaces.7

Michael Kerrisk

Move some CLONE_NEWUTS text 2 to namespaces.7

Michael Kerrisk

Move some CLONE_NEWIPC text to namespaces.7

Michael Kerrisk

Reword discussion of CLONE_NEWNS, removing text also in namespaces(7)

Michael Kerrisk

Standardize text on CLONE_NEW* flags and CAP_SYS_ADMIN

Michael Kerrisk

EINVAL if (CLONE_NEWUSER|CLONE_NEWPID) && (CLONE_THREAD|CLONE_PARENT)

Michael Kerrisk

Add more detail on the meaning of CLONE_SYSVSEM

flock.2

Michael Kerrisk [J. Bruce Fields]

Don't mention "classical BSD" in discussion of fcntl()/flock interaction

The noninteraction of flock(2) and fcntl(2) locks does not seem to be classical BSD semantics (at least, checking the 4.4BSD sources suggest that the lock types do interact, although there have been other systems also where fcntl() and flock() locks do not interact). So, fix the text discussing "classical BSD" lock semantics.

getunwind.2

Michael Kerrisk [Yuri Kozlov]

Fix description of return value

s/size of unwind table/size of the unwind data/

mount.2

Eric W. Biederman

Clarify use of 'mountflags' and 'data' for MS_REMOUNT

reboot.2

Michael Kerrisk [Justin Cormack, Eric W. Biederman]

Document effect of reboot() inside PID namespaces

semop.2

Michael Kerrisk

Refer to clone(2) for semantics of CLONE_SYSVSEM and semadj lists

seteuid.2

setgid.2

setresuid.2

setreuid.2

setuid.2

Michael Kerrisk

EINVAL can occur if UID/GID is not valid in caller's user namespace

setns.2

Michael Kerrisk [Eric W. Biederman]

Clarify capabilities required for reassociating with a mount namespace

Michael Kerrisk

Specify kernel version on each CLONE_NEW* flag

And remove text on flags from VERSIONS.

unshare.2

Michael Kerrisk

Add an example program

Michael Kerrisk

Clarify semantics of CLONE_SYSVSEM

Michael Kerrisk

CLONE_SYSVSEM does not require CAP_SYS_ADMIN

Michael Kerrisk

Note flags implied by CLONE_THREAD and CLONE_VM

clock.3

Michael Kerrisk [Vincent Lefevre]

The implementation uses clock_gettime() was to improve *accuracy*

(The man page text mistakenly used the word "precision".)

drand48.3

Michael Kerrisk [Lorenzo Beretta]

Remove crufty text about SVID 3 marking drand48() obsolete

See <http://bugs.debian.org/758293>

proc.5

Michael Kerrisk

Move /proc/[pid]/mounts text to namespaces.7

Michael Kerrisk

Move /proc/[pid]/mountstats text to namespaces.7

capabilities.7

Michael Kerrisk

Refer reader to user_namespaces(7) for a discussion of capabilities

Michael Kerrisk

Document CAP_SETUID and CAP_SETGID for user namespace mappings

Michael Kerrisk

setns() needs CAP_SYS_ADMIN in the *target* namespace

Michael Kerrisk

Since Linux 3.8, user namespaces no longer require CAP_SYS_ADMIN

mq_overview.7

Michael Kerrisk

Refer to namespaces(7) for info on POSIX MQs and IPC namespaces

svipc.7

Michael Kerrisk

Refer to namespaces(7) for info on System V IPC and IPC namespaces

==== Changes in man-pages-3.74 =====

Released: 2014-10-03, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

pldd.1

Michael Kerrisk

New page for pldd(1) command added to glibc in version 2.15

cp1252.7

Marko Myllynen

New page documenting CP 1252

CP 1252 is probably one of the most used Windows Code Pages so let's add a page for it alongside with the already provided CP 1251 page.

Table generated from /usr/share/i18n/charmaps/CP1252.

Newly documented interfaces in existing pages

mq_overview.7

Michael Kerrisk

Document /proc/sys/fs/mqueue/msgsize_default

Michael Kerrisk

Document /proc/sys/fs/mqueue/msg_default

Changes to individual pages

ldd.1

Michael Kerrisk

SEE ALSO: add pldd(1)

execve.2

Michael Kerrisk [C. Alex North-Keys]

Remove unneeded ".sh" extension in interpreter script example

See https://bugzilla.kernel.org/show_bug.cgi?id=84701

fanotify_init.2

Heinrich Schuchardt

BUGS: O_CLOEXEC is ignored

Michael Kerrisk [Heinrich Schuchardt]

The 'event_f_flags' failure to check invalid flags was fixed in 3.15

fanotify_mark.2

Michael Kerrisk

Note that various bugs were fixed in Linux 3.16

getrlimit.2

Michael Kerrisk [Doug Ledford]

Since Linux 3.5, the accounting formula for RLIMIT_MSGQUEUE has changed

open.2

Michael Kerrisk [Shriramana Sharma]

Fix number and formula in description of EOVERFLOW error

readlink.2

Michael Kerrisk [Ben Hutchings]

Fix description of readlinkat() with empty 'pathname'

Michael Kerrisk

SEE ALSO: add realpath(3)

sched_setattr.2

sched_setscheduler.2

Michael Kerrisk

SEE ALSO: add chrt(1)

shmget.2

Manfred Spraul [Michael Kerrisk, Davidlohr Bueso]

Update for increase of SHMALL and SHMMAX

The default values of SHMALL and SHMMAX have been increased.

syscalls.2

Michael Kerrisk

Add 3 new system calls added in Linux 3.17

vmsplice.2

Cyril Hrubis

vmsplice() does not fail when nr_segs==0

This nr_segs==0 case is no-op; the call succeeds and no EINVAL error is returned.

dlopen.3

Michael Kerrisk

SEE ALSO: add pldd(1)

fseeko.3

Michael Kerrisk [Thomas Mack]

_FILE_OFFSET_BITS must be defined before including any header file

getgrent.3

Carlos O'Donell

Add ENOENT and EAGAIN to error list

mq_getattr.3

Michael Kerrisk

Add an example program

The example program can be used to discover the default 'mq_maxmsg' and 'mq_msgsize' values used to create a queue with a mq_open(3) call in which 'attr' is NULL.

mq_open.3

Michael Kerrisk

Two /proc files control the defaults for the attr==NULL case

Refer the reader to the discussion in mq_overview(7) for a discussion of these files, which exist since Linux 3.5.

realpath.3

Michael Kerrisk

SEE ALSO: add realpath(1)

proc.5

Elie De Brauer

Document /proc/buddyinfo

This patch adds a short description about the contents of /proc/buddyinfo and how this file can be used to assist in checking for memory fragmentation issues.

Michael Kerrisk

Mention pmap(1) in discussion of /proc/PID/smaps

armscii-8.7

Marko Myllynen

Charset pages unification, minor cleanups

ascii.7

Marko Myllynen

Charset pages unification, minor cleanups

This and [the related *.7] patches will provide unification of charset pages, minor cleanups, and some unifying cosmetic changes. References are adjusted so that all pages include a reference to charsets(7), which contains a description of these sets, stray comments are removed, some obsolete statements (like ISO 8859-1 being the de-facto ASCII replacement) are removed, and some minor reformatting to minimize diff's between the pages are done.

The actual substance, the character tables, remain unchanged.

This series changes the following pages (under man7): ascii, armSCII, cp1251, koi8-r, koi8-u, and all of iso_8859-.*.

cp1251.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-10.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-11.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-13.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-14.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-15.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-16.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-1.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-2.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-3.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-4.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-5.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-6.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-7.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-8.7

Marko Myllynen

Charset pages unification, minor cleanups

iso_8859-9.7

Marko Myllynen

Charset pages unification, minor cleanups

koi8-r.7

Marko Myllynen

Charset pages unification, minor cleanups

- remove stray comments, streamline description (charsets(7) and Wikipedia provide more detailed and up-to-date description)
- list differences between koi8-r.7 vs koi8-u.7

koi8-u.7

Marko Myllynen

Charset pages unification, minor cleanups

- remove stray comments, streamline description (charsets(7) and Wikipedia provide more detailed and up-to-date description)
- list differences between koi8-r.7 vs koi8-u.7

mq_overview.7

Michael Kerrisk

Update queues_max details for Linux 3.14

And in general rework the text a little.

Michael Kerrisk

Update discussion of HARD_MSGMAX

The limit has changed in 2.6.33 and then again in 3.5.

Michael Kerrisk [Arto Bendiken]

Update details for 'queues_max' limit

Things changed in Linux 3.5.

See <https://bugs.launchpad.net/bugs/1155695>

Michael Kerrisk

Update details on defaults and ceiling for 'msgsize_max' limit

Michael Kerrisk

Rework discussion of HARD_MSGMAX

Michael Kerrisk [Davidlohr Bueso]

Various fixes after review from Davidlohr Bueso

sched.7

Michael Kerrisk

SEE ALSO: add taskset(1)

ld.so.8

Michael Kerrisk

SEE ALSO: add pldd(1)

Michael Kerrisk

SEE ALSO: add dlopen(3)

Michael Kerrisk

SEE ALSO: add ld(1)

==== Changes in man-pages-3.75 =====

Released: 2014-10-15, Düsseldorf

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Apologies if I missed anyone!

New and rewritten pages

pthread_rwlockattr_setkind_np.3

Robert Schweikert [Michael Kerrisk]

New page documenting pthread_rwlockattr_[sg]etkind_np(3)

Documents pthread_rwlockattr_setkind_np(3) and

pthread_rwlockattr_getkind_np(3).

New and changed links

pthread_rwlockattr_getkind_np.3

Robert Schweikert

New link to pthread_rwlockattr_setkind_np(3)

Changes to individual pages

readlink.2

Michael Kerrisk [Jonny Grant]

Add free() call to example program

readv.2

Michael Kerrisk

The raw preadv() and pwritev() syscalls split 'offset' into 2 arguments

signal.7

Michael Kerrisk

pthread_mutex_lock() and pthread_cond_wait() are restartable

pthread_mutex_lock(), pthread_cond_wait(), and related APIs are

automatically restarted if interrupted by a signal handler.

unix.7

Michael Kerrisk [Carlos O'Donnell, David Miller, Tetsuo Handa]

Various additions and rewordings

Notable changes:

- * Clarify some details for pathname sockets.
- * Add some advice on portably coding with pathname sockets.
- * Note the "buggy" behavior for pathname sockets when the supplied pathname is 108 bytes (after a report by Tetsuo Handa).

===== Changes in man-pages-3.76 =====

Released: 2014-12-31, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

adjtimex.2

Laurent Georget

Add fields in struct timex description

This patch updates the man page with the new fields added in struct timex since last edition of the man page.

Laurent Georget [Michael Kerrisk]

Document ADJ_TAI

Michael Kerrisk

Improve description of ADJ_OFFSET_SINGLESHOT

Michael Kerrisk

Add brief documentation of ADJ_MICRO and ADJ_NANO

Michael Kerrisk

Reformat return value list

And remove numeric values, since they're not needed

Michael Kerrisk

Other 'modes' bits are ignored on ADJ_OFFSET_*

Other bits in 'modes' are ignored if modes contains

ADJ_OFFSET_SINGLESHOT or ADJ_OFFSET_SS_READ.

Michael Kerrisk

Add nanosecond details

Fixes https://bugzilla.kernel.org/show_bug.cgi?id=61171.

Michael Kerrisk

Document ADJ_OFFSET_SS_READ

Michael Kerrisk

Reformat 'times' flags as list

And remove numeric values, since they're not needed.

Michael Kerrisk

Note effect of ADJ_NANO for ADJ_SETOFFSET

Michael Kerrisk

Add comment noting that timex structure contains padding bytes

Michael Kerrisk

Add more details to description of 'tai' field

Michael Kerrisk

Note meaning of "PLL" abbreviation

Michael Kerrisk

Clarify which 'timex' field is used by each 'modes' bit

Michael Kerrisk

Document timex 'status' bits

Michael Kerrisk

Clarify treatment of other 'modes' bits for ADJ_OFFSET_*

Michael Kerrisk

Update RFC number: RFC 5905 obsoletes RFC 1305

Michael Kerrisk

Briefly document ADJ_SETOFFSET

Michael Kerrisk

Note PPS (pulse per second) fields in timex structure

sigreturn.2

Michael Kerrisk

Add (a lot) more detail on the signal trampoline

And rewrite much of the page.

Newly documented interfaces in existing pages

proc.5

Bernhard Walle

Document /proc/thread-self

/proc/thread-self has been introduced in Linux 3.17 with
commit 0097875bd41528922fb3bb5f348c53f17e00e2fd.

Sven Hoexter [Michael Kerrisk, Kamezawa Hiroyuki]

Document "VmSwap" field of /proc/[pid]/status

Florian Westphal

Document /proc/net/netfilter/nfnetlink_queue

Changes to individual pages

localedef.1

Marko Myllynen

Mention default path for compiled files

clock_nanosleep.2

Michael Kerrisk

Note that 'clock_id' can also be a CPU clock ID

epoll_ctl.2

Michael Kerrisk

Regular files and directories can't be monitored with `epoll_ctl()`

ioctl.2

Heinrich Schuchardt

Rename 'd' argument to 'fd' in text

In most other manpages file descriptors are called 'fd'.

This patches renames attribute 'd' to 'fd'.

madvise.2

Michael Kerrisk

VERSIONS: Support for `madvise()` is now configurable

Support for this system call now depends on the

`CONFIG_ADVISE_SYSCALLS` configuration option.

open.2

Michael Kerrisk

Enhance rationale discussion for `openat()` and friends

posix_fadvise.2

Mel Gorman

Document the behavior of partial page discard requests

It is not obvious from the interface that "partial page discard" requests are ignored. It should be spelled out.

Michael Kerrisk [Weijie Yang]

ERRORS: Since 2.6.16, the kernel correctly deals with the `ESPIPE` case

Michael Kerrisk

Support for `fadvise64()` is now configurable

Support for this system call now depends on the

`CONFIG_ADVISE_SYSCALLS` configuration option.

prctl.2

Andreas Schwab

Correct description of null-termination in `PR_GET_NAME` and `PR_SET_NAME`

The size of the process name has always been at most 16 byte

`_including_` the null terminator. This also means that the name returned by `PR_GET_NAME` is always null-terminated.

Michael Kerrisk

`PR_SET_NAME` silently truncates strings that exceed 16 bytes

restart_syscall.2

Michael Kerrisk

Add some text explaining why `restart_syscall()` exists

sched_setaffinity.2

Michael Kerrisk

NOTES: Add paragraph on how to discover set of CPUs available on system

Michael Kerrisk

SEE ALSO: add nproc(1) and lscpu(1)

select.2

Michael Kerrisk

SEE ALSO: add restart_syscall(2)

semop.2

Michael Kerrisk

Add note that interrupted semtimedop() returns 'timeout' unchanged

Michael Kerrisk

Remove information about semtimedop() EAGAIN that is repeated elsewhere

Michael Kerrisk

Add subsection head for semtimedop()

setsid.2

Michael Kerrisk

Rewrite some pieces and add some details

Among other changes, add an explanation of why setsid() can't be called from a process group leader

sgetmask.2

Michael Kerrisk

Since 3.16, support for these system calls is configurable

Support for these calls is now dependent on the setting of the CONFIG_SGETMASK_SYSCALL option.

sigaction.2

Michael Kerrisk

Document SA_RESTORER

Michael Kerrisk

Add some detail on the sa_restorer field

Michael Kerrisk

SEE ALSO: add sigreturn(2)

splice.2

Michael Kerrisk

Reformat description of 'fd_in' and 'off_in' to improve readability

syscall.2

Michael Kerrisk

SEE ALSO: add errno(3)

syscalls.2

Michael Kerrisk

SEE ALSO: add errno(3)

Michael Kerrisk

3.19 adds execveat()

Michael Kerrisk

Add bpf(2) to list

tee.2

Michael Kerrisk

Add shell session demonstrating use of the example program

tkill.2

Michael Kerrisk [Rich Felker]

Remove bogus text saying `tgid==-1` makes `tgkill()` equivalent to `tkill()`

abort.3

Michael Kerrisk

Note that `SIGABRT` is raised as though `raise(3)` is called

Also note that `abort()` is POSIX.1-2008 compliant.

msg.3

David Wragg

Ensure `buf` is suitably aligned in sending example

Inspection of the definition of `CMSG_FIRSTHDR` (both in `glibc` and the suggested definition in `RFC3542`) shows that it yields the `msg_control` field. So when sending, the pointer placed in `msg_control` should be suitably aligned as a `struct cmsghdr`.

In the sending example, `buf` was declared as a bare char array, and so is not necessarily suitably aligned.

The solution here involves placing `buf` inside a union, and is based on the `sockets/scm_rights_send.c` sample from *The Linux Programming Interface* "dist" source code collection.

exp10.3

Michael Kerrisk

Before `glibc 2.19`, `exp()` did not give `ERANGE` error on underflow

http://sources.redhat.com/bugzilla/show_bug.cgi?id=6787

ftw.3

Michael Kerrisk

`FTW_CHDIR` has no effect on the `'fpath'` argument passed to `fn()`

getopt.3

Michael Kerrisk [Jonny Grant]

Ensure that `'nsecs'` is used

ilogb.3

Michael Kerrisk [Will Newton]

Since `glibc 2.16`, `ilogb()` does correctly diagnose domain errors

memcmp.3

Michael Haardt

Document return value for `n==0` case

Michael Haardt

Warn against use of `memcmp()` for comparing security-critical data

`mq_open.3`

Michael Kerrisk

Document the `O_CLOEXEC` flag

Michael Kerrisk

Place 'flags' constants in alphabetical order

`pow.3`

Manuel López-Ibáñez

Add note on performance characteristics of `pow()`

`pthread_setschedparam.3`

Simon Newton

Fix logic error in example program

The example program will crash if `-A` is used, since 'attr' is uninitialized.

```
$ ./a.out -A
*** Error in `./a.out': free(): invalid pointer: 0xb779c3c4 ***
Aborted (core dumped)
```

Small fixes to example program

`sigvec.3`

Michael Kerrisk

Starting with version 2.21, `glibc` no longer exports `sigvec()`

`sysconf.3`

Josh Triplett

Document `_SC_NGROUPS_MAX`

Already documented in `getgroups(2)`, but not in `sysconf(3)`.

`termios.3`

Michael Kerrisk

SEE ALSO: add `tset(1)`

`tgamma.3`

Michael Kerrisk

Since `glibc 2.18`, `errno` is correctly set to `EDOM` when `(x == -infinity)`

`wordexp.3`

Carlos O'Donell

Make it clear that `WRDE_NOCMD` prevents command substitution

The use of `WRDE_NOCMD` prevents command substitution. If the flag

WRDE_NOCMD is set then no command substitution shall occur and the error WRDE_CMDSUB will be returned if such substitution is requested when processing the words.

The manual page as-is makes it seem like the command substitution occurs, and an error is returned *after* the substitution.

This patch clarifies that.

locale.5

Marko Myllynen

Describe the formats of values

locale(5) describes what a locale should define but doesn't spell out how (in what format). The patch attempts to address this, it also has few trivial additional enhancements.

* Reference to locale(7) for category descriptions.

* Clarify first_workday in NOTES a bit.

* Add upstream BZ reference for two missing LC_ADDRESS fields.

Marko Myllynen

Fix miscoded character

resolv.conf.5

Jan Chaloupka

Add missing no-tld-query option

Based on commit [1], the no-tld-query option exists for resolv.conf configuration file. Description of this option is provided in [2]. This patch just copies this option into resolv.conf.5 man page. Plus changes 'a' member into 'an' before 'unqualified name as if it ...' on the third line of [2]. Based on [3], this option was added in glibc 2.14 as solving [4] bug.

[1] <https://sourceware.org/git/?p=glibc.git;a=commitdiff;h=f87dfb1f11c01f2ccdc40d81e134cd06b32e28e8>

[2] <http://www.daemon-systems.org/man/resolv.conf.5.html> man page.

[3]

<https://sourceware.org/git/?p=glibc.git;a=blob;f=NEWS;h=952f32af17e7fb49c4c1a305de673a13075bfaf5;hb=f87dfb1f11c01f2ccdc40d81e134cd06b32e28e8>

[4] https://sourceware.org/bugzilla/show_bug.cgi?id=12734

credentials.7

Josh Triplett

Cross-reference getgroups(2)

Since credentials.7 discusses supplementary GIDs, it should reference getgroups(2).

fanotify.7

Heinrich Schuchardt

Allow relative paths in example

The current example code requires passing an absolute path to the mount to be watched.

By passing `AT_FDCWD` to `fanotify_mark` it can use both absolute and relative paths.

Heinrich Schuchardt

`fallocate(2)` creates no events

`fallocate(2)` should create `FAN_MODIFY` events but does not.

Heinrich Schuchardt [Michael Kerrisk]

`fanotify` notifies only events generated on the same mount

Unfortunately, `fanotify` does not inform listeners for all paths under which a touched filesystem object is visible, but only the listener using the same path as the process touching the filesystem object.

Heinrich Schuchardt

Update `BUGS` to note bugs still not fixed in 3.17

I bumped the Linux version number in the `BUGS` section to 3.17.

`inotify.7`

Heinrich Schuchardt

`fallocate(2)` does not trigger `inotify` events

Calling `fallocate(2)` does not result in `inotify` events.

`locale.7`

Marko Myllynen

Improve `LOCPATH` description

`LOCPATH` is ignored by privileged programs.

Add locale archive references.

Add `FILES` section.

`man-pages.7`

Michael Kerrisk [Laurent Georget]

Clarify that `SEE ALSO` entries may refer to pages from other projects

`signal.7`

Michael Kerrisk

Mention other "slow devices"

Reads from `eventfd(2)`, `signalfd(2)`, `timerfd(2)`, `inotify(7)`, and `fanotify(7)` file descriptors are also slow operations that are restartable.

Michael Kerrisk

Fix `SO_RECVTIMEO/ SO_SENDFDTIMEO` confusion in text

Michael Kerrisk

Since Linux 3.8, reads on `inotify(7)` file descriptors are restartable

Michael Kerrisk

`inotify(7)` reads no longer show the odd `EINTR` error after `SIGCONT`

Since kernel 3.7, reads from inotify(7) file descriptors no longer show the (Linux oddity) behavior of failing with EINTR when the process resumes after a stop signal + SIGCONT.

Michael Kerrisk

SEE ALSO: add sigreturn(2)

unix.7

Michael Kerrisk [Scott Harvey]

Fix buglet in code snippet in BUGS section

ld.so.8

Carlos O'Donell

Add --inhibit-cache option

The dynamic loader has 6 options, only 5 are documented.

This patch documents the sixth option i.e. `--inhibit-cache`.

Jonathan Wakely [Siddhesh Poyarekar]

Correct documentation of \$ORIGIN

As noted by Siddhesh:

The ld.so man page says:

\$ORIGIN (or equivalently \${ORIGIN})

This expands to the directory containing the application executable. Thus, an application located in somedir/app could be compiled with

This is incorrect since it expands to the directory containing the DSO and not the application executable. This seems like deliberate behaviour in dl-object.c, so it needs to be fixed in the man page.

See <http://stackoverflow.com/questions/26280738/what-is-the-equivalent-of-loader-path-for-rpath-specification-on-linux/26281226#26281226>

==== Changes in man-pages-3.77 =====

Released: 2015-01-10, Munich

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Apologies if I missed anyone!

New and rewritten pages

seccomp.2

Kees Cook, Michael Kerrisk, Will Drewry [Andy Lutomirski]

New page documenting seccomp(2)

Combines documentation from prctl, in-kernel seccomp_filter.txt
and dropper.c, along with details specific to the new system call.

Newly documented interfaces in existing pages

netlink.7

Stephan Mueller [Michael Kerrisk]

Add NETLINK_CRYPTO

Changes to individual pages

adjtimex.2

Laurent Georget [Richard Cochran, Jeff Epler]

Clarify the 'ppm scaling' used in struct timex

This patch makes explicit and clarifies the unit used for the fields "freq", "ppsfreq" and "stabil" in struct timex.

Michael Kerrisk [Masanari Iida]

Note that TIME_ERROR is the modern synonym for TIME_BAD

perf_event_open.2

Vince Weaver

Clarify the PERF_FLAG_FD_* flags

This change clarifies the behavior of the PERF_FLAG_FD_OUTPUT and PERF_FLAG_FD_NO_GROUP flags to perf_event_open(), and removes the related FIXME comments.

While writing tests to validate the behavior of these flags I discovered that PERF_FLAG_FD_OUTPUT has been broken since the 2.6.35 kernel release.

prctl.2

Dave Hansen [Michael Kerrisk]

Add description of Intel MPX calls

The 3.19 kernel will have support for Intel MPX, including a pair of new prctl() calls (PR_MPX_ENABLE_MANAGEMENT and PR_MPX_DISABLE_MANAGEMENT) for enabling and disabling the kernel's management of the "bounds tables". Add a descriptions of the interface.

Michael Kerrisk

Add mention of seccomp(2) under PR_SET_SECCOMP

Michael Kerrisk

Suggest /proc/PID/status "Seccomp" as alternative to PR_GET_SECCOMP

Michael Kerrisk

SIGKILL can also occur PR_GET_SECCOMP in SECCOMP_MODE_FILTER mode

Kees Cook [Andy Lutomirski]

Document SECCOMP_MODE_FILTER vs EFAULT

This notes the distinction made between EINVAL and EFAULT when attempting to use SECCOMP_MODE_FILTER with PR_SET_SECCOMP.

setns.2

pid_namespaces.7

Mike Frysiner

Elaborate discussion of the PID namespace descendant limitation

The setns(2) man page already mentions that CLONE_NEWPID may only be used with descendant namespaces, but this nuance could be listed in a few more places so it is not missed.

shmget.2

Michael Kerrisk [Akihiro Motoki]

Make wording of SHMALL description a little clearer

sigaction.2

Michael Kerrisk

Add siginfo_t fields for SECCOMP_RET_TRAP

memchr.3

strchr.3

Alexandre Bique

Reference memmem(3) in SEE ALSO section

memcmp.3

Michael Kerrisk [Michael Haardt]

NOTES: add some detail on avoiding memcmp() of cryptographic data

Wording largely based on comments from Michael Haardt.

pthread_tryjoin_np.3

Jérôme Pouiller [Michael Kerrisk]

Document EINVAL error for pthread_timedjoin_np()

mem.4

Elie De Brauer

/dev/kmem depends on CONFIG_DEVKMEM

Elie De Brauer

Correct /dev/port group in example

mem.4 mentions that group for /dev/port should be set to 'mem'

However, all other files (/dev/mem and /dev/kmem) use the kmem

group in their examples and on my system /dev/port belongs to

kmem. Hence the 'mem' group was probably a typo:

Elie De Brauer

Add CONFIG_STRICT_DEVMEM

Since 2.6.26 the CONFIG_NONPROMISC_DEVMEM options limits the physical addresses which can be accessed through /dev/mem.

random.4

Heinrich Schuchardt

Describe handling of O_NONBLOCK

/dev/random and /dev/urandom treat O_NONBLOCK differently.

This should be described in the manpage.

Heinrich Schuchardt

Mention PRNG used by urandom

/dev/urandom uses a pseudo-random number generator to replace missing entropy.

proc.5

Michael Kerrisk

Document "Seccomp" field of /proc/PID/status

epoll.7

Michael Kerrisk [Ignat Loskutov]

Use `epoll_create1()` rather than `epoll_create()` in the code example
`epoll_create1()` is more or less the preferred API for new applications, since it allows for some flags and avoids the misdesigned `epoll_create()` argument, and so it seems sensible to use that in the example, rather than `epoll_create()`.

tcp.7

Troy Davis

Clarify `tcp_tw_recycle` on Internet-facing hosts

Clarify that `tcp_tw_recycle` will break communication with many general-purpose remote Internet hosts (namely, remote NAT devices) even when the Linux device itself is not behind NAT.

==== Changes in man-pages-3.78 =====

Released: 2015-01-22, Munich

Contributors

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Rich Felker <dalias@aerifal.cx>

Vince Weaver <vincent.weaver@maine.edu>

Apologies if I missed anyone!

New and rewritten pages

execveat.2

David Drysdale, Michael Kerrisk [Rich Felker]

New page for execveat(2)

memfd_create.2

Michael Kerrisk, David Herrmann

New page for memfd_create() system call

Including notes about file sealing

s390_pci_mmio_write.2

Alexey Ishchuk

New page for s390 s390_pci_mmio_write() and s390_pci_mmio_read()

New manual page for the new PCI MMIO memory access system calls, s390_pci_mmio_write() and s390_pci_mmio_read(), added for the s390 platform.

Newly documented interfaces in existing pages

fcntl.2

David Herrmann [Michael Kerrisk]

Document F_ADD_SEALS and F_GET_SEALS commands

proc.5

Elie De Brauer

Document /proc/sys/vm/compact_memory

Michael Kerrisk

Document /proc/sys/fs/nr_open

New and changed links

s390_pci_mmio_read.2

Michael Kerrisk

New link to new s390_pci_mmio_write(2) page

Changes to individual pages

dup.2

Michael Kerrisk

Add reference to RLIMIT_NOFILE for EMFILE error

Michael Kerrisk

Add reference to RLIMIT_NOFILE for EBADF error on 'newfd'.

execve.2

fexecve.3

Michael Kerrisk

SEE ALSO: add execveat(2)

fallocate.2

mmap.2

open.2

truncate.2

write.2

Michael Kerrisk

ERRORS: add EPERM for operation denied by file seal

fcntl.2

Michael Kerrisk

ERRORS: add EBUSY case for F_SETPIPE_SZ

Michael Kerrisk

Add reference to RLIMIT_NOFILE for F_DUPFD EINVAL error on 'arg'.

Michael Kerrisk

ERRORS: add open file description lock error cases

getrlimit.2

Michael Kerrisk

Update text on RLIMIT_NOFILE ceiling to refer to /proc/sys/fs/file-max

mbind.2

Michael Kerrisk [Daniel J Blueman]

Clarify EFAULT text

mmap.2

shmget.2

shm_open.3

Michael Kerrisk

SEE ALSO: add memfd_create(2)

open.2

Michael Kerrisk

Refer to RLIMIT_NOFILE for explanation of EMFILE error

Michael Kerrisk

Add execveat(2) in system call list under "Rationale for openat()"

perf_event_open.2

Vince Weaver

Clarify description of overflow events

Update the perf_event_open manpage to be more consistent when discussing overflow events. It merges the discussion of poll-type notifications with those generated by SIGIO

signal handlers.

This addresses the remaining FIXMEs in the document.

Vince Weaver

Remove inaccurate paragraph describing attr.config

Remove an inaccurate paragraph about values in the attr.config field. This information was never true in any released kernel; it somehow snuck into the manpage because it is still described this way in tools/perf/design.txt in the kernel source tree.

Michael Kerrisk

Correct the kernel version number for PERF_COUNT_HW_CACHE_NODE

Michael Kerrisk

Add some kernel version numbers to various fields and constants

ptrace.2

sigaction.2

seccomp.2

Kees Cook

Ptrace and signinfo details

While writing some additional seccomp tests, I realized PTRACE_EVENT_SECCOMP wasn't documented yet. Fixed this, and added additional notes related to ptrace events SIGTRAP details.

readv.2

Michael Kerrisk

Update details on glibc readv()/writev() wrapper behavior
And add a historical detail about Linux 2.0.

select.2

Michael Kerrisk

Mention RLIMIT_NOFILE as a possible cause of EINVAL error

syscall.2

Kees Cook

Add arm64 and mips
Add mips and arm64 to tables, along with some further details on these architectures,

syscalls.2

Michael Kerrisk

Add s390_pci_mmio_read(2) and s390_pci_mmio_write(2)

Michael Kerrisk

Note kernel() version that introduced get_kernel_syms()
Note kernel version that introduced ppc_rtas()
Note kernel version that introduced create_module()
Note kernel version that added setup()

Michael Kerrisk

Remove some details for sync_file_range2()
Make the table a bit simpler. The details can anyway be

found in the system call man page.

utimensat.2

Michael Kerrisk [Elliot Hughes]

If both tv_sec fields are UTIME_OMIT, the file need not exist

As noted by Elliot, if both tv_sec fields are UTIME_OMIT, utimensat() will return success even if the file does not exist.

errno.3

Michael Kerrisk

The RLIMIT_NOFILE resource limit is a common cause of EMFILE

exec.3

Michael Kerrisk

SEE ALSO: add execveat(2)

fclose.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

Harmonize all the manual pages to use "stream" for FILE* instead of randomly using "fp" or "stream." Choosing something and being consistent helps users scan the man pages quickly and understand what they are looking at.

fexecve.3

Michael Kerrisk

Rewrite the script+close-on-exec problem as a BUG

Also, add one or two details about this scenario.

Michael Kerrisk

The natural idiom when using fexecve() is to use the close-on-exec flag

fmemopen.3

Michael Kerrisk

Consistency fix: use "stream" as name for "FILE *" argument

fopencookie.3

Michael Kerrisk

Consistency fix: use "stream" as name for "FILE *" argument

getgrent_r.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

getline.3

Michael Kerrisk

Consistency fix: use "stream" as name for "FILE *" argument

getmntent.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

getpw.3

Michael Kerrisk [Carlos O'Donell]

Describe return value when 'uid' is not found

getpwent_r.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

getspnam.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

malloc_info.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

posix_fallocate.3

Michael Kerrisk

Note that posix_fallocate() is implemented using fallocate(2)

putgrent.3

Carlos O'Donell

Consistency fix: use "stream" as name for "FILE *" argument

Harmonize all the manual pages to use "stream" for FILE* instead of randomly using "fp" or "stream." Choosing something and being consistent helps users scan the man pages quickly and understand what they are looking at.

locale.5

Akihiro Motoki

Correct variable name

proc.5

Michael Kerrisk

Remove bogus statement about NR_OPEN being a ceiling for file-max

==== Changes in man-pages-3.79 =====

Released: 2015-02-01, Munich

Contributors

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Apologies if I missed anyone!

New and rewritten pages

getrandom.2

Heinrich Schuchardt, Theodore T'so, Michael Kerrisk
New page documenting getrandom(2)
Kernel 3.17 introduces a new system call getrandom(2).

kexec_load.2

Vivek Goyal, Michael Kerrisk
Add documentation of kexec_file_load(2)
Michael Kerrisk, Vivek Goyal
Rewrite and extend documentation of kexec_load().

New and changed links

kexec_file_load.2

Michael Kerrisk
New link to kexec_load.2

Changes to individual pages

personality.2

Michael Kerrisk
SEE ALSO: add setarch(8)

prctl.2

Michael Kerrisk

Unused arguments of PR_MPX_(EN,DIS)ABLE_MANAGEMENT must be zero

reboot.2

Michael Kerrisk

SEE ALSO: add kexec_load(2)

socket.2

Stephan Mueller

document AF_ALG

Add a reference to the AF_ALG protocol accessible via socket(2).

fflush.3

Michael Kerrisk [Sergey V. Zubkov]

Clarify that flushing of input streams occurs only for seekable files

See https://bugzilla.kernel.org/show_bug.cgi?id=91931

Michael Kerrisk [Sergey V. Zubkov]

POSIX.1-2008 specifies the behavior when flushing input streams

POSIX.1-2001 did not have a specification for input streams,

but POSIX.1-2008 added one.

getopt.3

Michael Kerrisk

SEE ALSO: add getopt(1)

random.3

Heinrich Schuchardt

SEE ALSO: add getrandom(2)

termios.3

Michael Kerrisk

SEE ALSO: add reset(1), setterm(1), tput(1)

tzset.3

J William Piggott

Document behavior when TZ filespec omits the colon

If the TZ filespec omits the leading colon, glibc will parse

it for any valid format, i.e., it will still work.

J William Piggott

Add description for posixrules file

J William Piggott

Correct system timezone file path

J William Piggott

There are only two TZ formats

tzset(3) currently states that there are three TZ formats. The

first two it lists are actually variations of the POSIX-style

TZ format, of which there are at least five variations.

This patch corrects this to match the POSIX specification of TZ having only two formats.

J William Piggott

Filespec omitted incorrect

Paragraph three of the DESCRIPTION section says that when TZ is set, but empty, then UTC is used.

Later it says if the TZ filespec is omitted then the file /usr/share/zoneinfo/localtime is used. This is incorrect, it will use UTC in that case as well.

J William Piggott

Fix incorrect TZ string representation

The TZ string representation indicates that the start/end rules are required; this is incorrect.

J William Piggott

Add ENVIRONMENT section + other rearrangements

FILES section was overly verbose and included environment variables. Added ENVIRONMENT section, removing ENV VARS from the FILES section.

random.4

Heinrich Schuchardt

SEE ALSO: add getrandom(2)

passwd.5

Michael Kerrisk

SEE ALSO: add chfn(1), chsh(1)

capabilities.7

Michael Kerrisk

SEE ALSO: add setpriv(1)

signal.7

Michael Kerrisk

Add getrandom(2) to list of restartable system calls

Michael Kerrisk

Add F_OFD_SETLKW to list of restartable operations

==== Changes in man-pages-3.80 =====

Released: 2015-02-21, Munich

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Apologies if I missed anyone!

New and rewritten pages

ioctl_fat.2

Heinrich Schuchardt [Michael Kerrisk]

New man page for the ioctl(2) FAT API

The `ioctl(2)` system call may be used to retrieve information about the FAT file system and to set file attributes.

madvise.2

Michael Kerrisk

Summary: this page has been significantly reorganised and rewritten

Michael Kerrisk

Recast discussion of 'advice' into two groups of values

`madvise()` is one of those system calls that has congealed over time, as has the man page. It's helpful to split the discussion of 'advice' into those flags into two groups:

- * Those flags that are (1) widespread across implementations; (2) have counterparts in `posix_madvise(3)`; and (3) were present in the initial Linux `madvise` implementation.
- * The rest, which are values that (1) may not have counterparts in other implementations; (2) have no counterparts in `posix_madvise(3)`; and (3) were added to Linux in more recent times.

Michael Kerrisk

Explicitly list the five flags provided by `posix_fadvise()`

Over time, bit rot has afflicted this page. Since the original text was written many new Linux-specific flags have been added.

So, now it's better to explicitly list the flags that correspond to the POSIX analog of `madvise()`.

Jan Chaloupka [Hugh Dickins, Michael Kerrisk]

Starting with Linux 3.5, more file systems support `MADV_REMOVE`

Michael Kerrisk

Split `EINVAL` error into separate cases

Michael Kerrisk

Explain `MADV_REMOVE` in terms of file hole punching

Michael Kerrisk

`MADV_REMOVE` can be applied only to shared writable mappings

Michael Kerrisk

`MADV_REMOVE` cannot be applied to locked or Huge TLB pages

Michael Kerrisk [Vlastimil Babka]

Clarify that `MADV_DONTNEED` has effect on pages only if it succeeds

Michael Kerrisk [Vlastimil Babka]

Clarifications for `MADV_DONTNEED`

Michael Kerrisk [Michal Hocko]

Improve `MADV_DONTNEED` description

Michael Kerrisk

`MADV_DONTNEED` cannot be applied to Huge TLB or locked pages

Michael Kerrisk [Vlastimil Babka]

Remove mention of "shared pages" as a cause of `EINVAL` for `MADV_DONTNEED`

Michael Kerrisk [Vlastimil Babka]

Note Huge TLB as a cause of `EINVAL` for `MADV_DONTNEED`

Michael Kerrisk [Minchan Kim]

Add mention of VM_PFNMAP in discussion of MADV_DONTNEED and MADV_REMOVE

Michael Kerrisk

Drop sentence saying that kernel may ignore 'advice'

The sentence creates misunderstandings, and does not really add information.

Michael Kerrisk

Note that some Linux-specific 'advice' change memory-access semantics

Michael Kerrisk

NOTES: Remove crufty text about "command" versus "advice"

The point made in this fairly ancient text is more or less evident from the DESCRIPTION, and it's not clear what "standard" is being referred to.

Michael Kerrisk

Mention POSIX.1-2008 addition of POSIX_MADV_NOREUSE

Michael Kerrisk

Remove "POSIX.1b" from CONFORMING TO

Michael Kerrisk

Move mention of posix_fadvise() from CONFORMING TO to SEE ALSO

Michael Kerrisk

ERRORS: add EPERM error case for MADV_HWPOISON

Michael Kerrisk

Note that madvise() is nonstandard, but widespread

Newly documented interfaces in existing pages

proc.5

Michael Kerrisk

(Briefly) document /proc/PID/attr/socketcreate

Michael Kerrisk

(Briefly) document /proc/PID/attr/keycreate

Michael Kerrisk [Stephen Smalley]

Document /proc/PID/attr/{current,exec,fscreate,prev }

Heavily based on Stephen Smalley's text in

<https://lwn.net/Articles/28222/>

From: Stephen Smalley <sds@epoch.ncsc.mil>

To: LKML and others

Subject: [RFC][PATCH] Process Attribute API for Security Modules

Date: 08 Apr 2003 16:17:52 -0400

Michael Kerrisk

Document /proc/sys/kernel/auto_msgmni

socket.7

David Wilson [Michael Kerrisk]

Document SO_REUSEPORT socket option

New and changed links

get_thread_area.2

Andy Lutomirski

Make [get_thread_area.2](#) a link to rewritten [set_thread_area.2](#) page

Changes to individual pages

time.1

Michael Kerrisk

Make option argument formatting consistent with other pages

access.2

Denys Vlasenko

Explain how `access()` check treats capabilities

We have users who are terribly confused why their binaries with `CAP_DAC_OVERRIDE` capability see `EACCESS` from `access()` calls, but are able to read the file.

The reason is `access()` isn't the "can I read/write/execute this file?" question, it is the "(assuming that I'm a setuid binary,) can *the user who invoked me* read/write/execute this file?" question.

That's why it uses real UIDs as documented, and why it ignores capabilities when capability-endorsed binaries are run by non-root (this patch adds this information).

To make users more likely to notice this less-known detail, the patch expands the explanation with rationale for this logic into a separate paragraph.

arch_prctl.2

set_thread_area.2

get_thread_area.2

Andy Lutomirski

Improve TLS documentation

The documentation for `set_thread_area` was very vague. This improves it, accounts for recent kernel changes, and merges it with `get_thread_area.2`.

`get_thread_area.2` now becomes a link.

While I'm at it, clarify the related `arch_prctl.2` man page.

cacheflush.2

Ralf Baechle

Update some portability details and bugs

Michael Kerrisk

Refer reader to BUGS in discussion of EINVAL error

capget.2

Michael Kerrisk

Document V3 capabilities constants

Michael Kerrisk

Rewrite discussion of kernel versions that support file capabilities

File capabilities ceased to be optional in Linux 2.6.33.

clone.2

Peng Haitao

Fix description of CLONE_PARENT_SETTID

CLONE_PARENT_SETTID only stores child thread ID in parent memory.

clone.2

execve.2

Kevin Easton

Document interaction of execve(2) with CLONE_FILES

This patch the fact that a successful execve(2) in a process that is sharing a file descriptor table results in unsharing the table.

I discovered this through testing and verified it by source inspection - there is a call to unshare_files() early in do_execve_common().

fcntl.2

Michael Kerrisk [Jeff Layton]

Clarify cases of conflict between traditional record and OFD locks

Verified by experiment on Linux 3.15 and 3.19rc4.

fork.2

Michal Hocko

EAGAIN is not reported when task allocation fails

I am not sure why we have:

"EAGAIN fork() cannot allocate sufficient memory to copy the parent's page tables and allocate a task structure or the child."

The text seems to be there from the time when man-pages were moved to git so there is no history for it.

And it doesn't reflect reality: the kernel reports both dup_task_struct and dup_mm failures as ENOMEM to the

userspace. This seems to be the case from early 2.x times
so let's simply remove this part.

Heinrich Schuchardt

Child and parent run in separate memory spaces
fork.2 should clearly point out that child and parent
process run in separate memory spaces.

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

getpid.2

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

getxattr.2

Michael Kerrisk

Various rewordings plus one or two details clarified

Michael Kerrisk

Add pointer to example in listxattr(2)

killpg.2

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

listxattr.2

Heinrich Schuchardt

Provide example program

Michael Kerrisk

Reword discussion of size==0 case

Michael Kerrisk

Add note on handling increases in sizes of keys or values

Michael Kerrisk

Remove mention of which filesystems implement ACLs

Such a list will only become outdated (as it already was).

migrate_pages.2

Jan Stancek

Document EFAULT and EINVAL errors

I encountered these errors while writing testcase for migrate_pages
syscall for LTP (Linux test project).

I checked stable kernel tree 3.5 to see which paths return these.

Both can be returned from get_nodes(), which is called from:

```
SYSCALL_DEFINE4(migrate_pages, pid_t, pid, unsigned long, maxnode,  
                const unsigned long __user *, old_nodes,  
                const unsigned long __user *, new_nodes)
```

The testcase does following:

EFAULT

- a) old_nodes/new_nodes is area mmaped with PROT_NONE
- b) old_nodes/new_nodes is area not mmaped in process address space, -1 or area that has been just munmmaped

EINVAL

- a) maxnodes overflows kernel limit
- b) new_nodes contain node, which has no memory or does not exist or is not returned for get_mempolicy(MPOL_F_MEMS_ALLOWED).

modify_ldt.2

Andy Lutomirski

Overhaul the documentation

This clarifies the behavior and documents all four functions.

Andy Lutomirski

Clarify the lm bit's behavior

The lm bit should never have existed in the first place. Sigh.

mprotect.2

Mark Seaborn

Mention effect of READ_IMPLIES_EXEC personality flag

I puzzled over mprotect()'s effect on /proc/*/maps for a while yesterday -- it was setting "x" without PROT_EXEC being specified.

Here is a patch to add some explanation.

msgget.2

Michael Kerrisk

Add details of MSGMNI default value

msgop.2

Michael Kerrisk

Clarify wording of MSGMAX and MSGMNB limits

perf_event_open.2

Vince Weaver

Clarify PERF_EVENT_IOC_REFRESH behavior

Currently the PERF_EVENT_IOC_REFRESH ioctl, when applied to a group leader, will refresh all children. Also if a refresh value of 0 is chosen then the refresh becomes infinite (never runs out).

Back in 2011 PAPI was relying on these behaviors but I was told that both were unsupported and subject to being removed at any time.

(See <https://lkml.org/lkml/2011/5/24/337>)

However the behavior has not been changed.

This patch updates the manpage to still list the behavior as unsupported, but removes the inaccurate description of it only being a problem with 2.6 kernels.

prctl.2

Michael Kerrisk [Bill McConnaughey]

Mention file capabilities in discussion of PR_SET_DUMPABLE

Michael Kerrisk

Greatly expand discussion of "dumpable" flag

In particular, detail the interactions with

/proc/sys/fs/suid_dumpable.

Michael Kerrisk

Reorder paragraphs describing PR_SET_DUMPABLE

Michael Kerrisk

Mention SUID_DUMP_DISABLE and SUID_DUMP_USER under PR_SET_DUMPABLE

Michael Kerrisk

Executing a file with capabilities also resets the parent death signal

ptrace.2

James Hunt

Explain behaviour should ptrace tracer call execve(2)

This behaviour was verified by reading the kernel source and

confirming the behaviour using a test program.

Denys Vlasenko

Add information on PTRACE_SEIZE versus PTRACE_ATTACH differences

Extend description of PTRACE_SEIZE with the short summary of its differences from PTRACE_ATTACH.

The following paragraph:

PTRACE_EVENT_STOP

Stop induced by PTRACE_INTERRUPT command, or group-stop, or initial ptrace-stop when a new child is attached (only if attached using PTRACE_SEIZE), or PTRACE_EVENT_STOP if PTRACE_SEIZE was used.

has an editing error (the part after last comma makes no sense).

Removing it.

Mention that legacy post-execve SIGTRAP is disabled by PTRACE_SEIZE.

sched_setattr.2

Michael Kerrisk [Christophe Blaess]

SYNOPSIS: remove 'const' from 'attr' sched_getattr() argument

semget.2

Michael Kerrisk

Note default value for SEMMNI and SEMMSL

semop.2

Michael Kerrisk

Note defaults for SEMOPM and warn against increasing > 1000

sendfile.2

Eric Wong

Caution against modifying sent pages

setxattr.2

Michael Kerrisk

ERRORS: add ENOTSUP for invalid namespace prefix

Michael Kerrisk

Remove redundant text under ENOTSUP error

Michael Kerrisk

Note that zero-length attribute values are permitted

Michael Kerrisk

Rework text describing 'flags' argument

stat.2

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

statfs.2

Michael Kerrisk [Jan Chaloupka]

Document the 'f_flags' field added in Linux 2.6.36

Michael Kerrisk

Clarify that 'statfs' structure has some padding bytes

The number of padding bytes has changed over time, as some bytes are used, so describe this aspect of the structure less explicitly.

Tao Ma

Add OCFS2_SUPER_MAGIC

Michael Kerrisk

Use __fsword_t in statfs structure definition

This more closely matches modern glibc reality.

Michael Kerrisk

Add a note on the __fsword_t type

Michael Kerrisk

Document 'f_spare' more vaguely

wait.2

Michael Kerrisk

Note that waitpid() is a wrapper for wait4()

Michael Kerrisk

Note that wait() is a library function implemented via wait4()

wait4.2

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

encrypt.3

Rob Somers

Improve code example

I (and some others) found that the original example code did not seem to work as advertised. The new code (used by permission of the original author, Jens Thoms Toerring) was found on comp.os.linux.development.

mktemp.3

Luke Faraone

DESCRIPTION reference to BUGS corrected

mktemp(3)'s DESCRIPTION referenced NOTES, but no such section exists. Corrected to refer to BUGS.

pthread_attr_setschedparam.3

Tobias Herzke

Describe EINVAL in ERRORS

resolver.3

host.conf.5

Simon Paillard

host.conf 'order' option deprecated, replaced by nsswitch.conf(5)

http://www.sourceware.org/bugzilla/show_bug.cgi?id=2389

<http://repo.or.cz/w/glibc.git/commit/b9c65d0902e5890c4f025b574725154032f8120a>

Reported at <http://bugs.debian.org/270368>,

<http://bugs.debian.org/396633>, and <http://bugs.debian.org/344233>.

statvfs.3

Michael Kerrisk

Document missing 'f_flag' bit values

And reorganize information relating to which flags are in POSIX.1.

Michael Kerrisk [Jan Chaloupka]

statvfs() now populates 'f_flag' from statfs()'s f_flag field

These changes came with glibc 2.13, and the kernel's addition of a 'f_flags' field in Linux 2.6.36.

syslog.3

Michael Kerrisk [Doug Goldstein]

Remove unneeded <stdarg.h>

vsyslog() does not need this.

tzset.3

J William Piggott

Add offset format

tzset.3 does not illustrate the POSIX offset format.

Specifically, there is no indication in the manual what the optional components of it are.

random.4

Michael Kerrisk

Note maximum number of bytes returned by read(2) on /dev/random

Michael Kerrisk [Mathieu Malaterre]

Since Linux 3.16, reads from /dev/urandom return at most 32 MB

See <https://bugs.debian.org/775328> and

https://bugzilla.kernel.org/show_bug.cgi?id=80981#c9

core.5

Michael Kerrisk [Bill McConnaughey]

Executing a file that has capabilities also prevents core dumps

Michael Kerrisk

Document "%i" and "%I" core_pattern specifiers

intro.5

Michael Kerrisk

Remove words "and protocols"

There are no protocol descriptions in Section 5. Protocols are in Section 7.

proc.5

Michael Kerrisk

Add reference to prctl(2) in discussion of /proc/sys/fs/suid_dumpable

And note that /proc/sys/fs/suid_dumpable defines the value assigned to the process "dumpable" flag in certain circumstances.

Michael Kerrisk

Note that CAP_SYS_ADMIN is required to list /proc/PID/map_files

This might however change in the future; see the Jan 2015 LKML thread:

Re: [RFC][PATCH v2] procfs: Always expose /proc/<pid>/map_files/
and make it readable

resolv.conf.5

Michael Kerrisk

SEE ALSO: add nsswitch.conf(5)

capabilities.7

Michael Kerrisk

Mention SECBIT_KEEP_CAPS as an alternative to prctl() PR_SET_KEEPCAPS

Chris Mayo

NOTES: add last kernel versions for obsolete options

The CONFIG_SECURITY_CAPABILITIES option was removed by
commit 5915eb53861c5776cfec33ca4fcc1fd20d66dd27

The CONFIG_SECURITY_FILE_CAPABILITIES option removed in
Linux 2.6.33 as already mentioned in DESCRIPTION.

pthread.7

Michael Kerrisk

SEE ALSO: add fork(2)

unix.7

Jan Chaloupka

Mention SOCK_STREAM socket for ioctl_type of ioctl()
from https://bugzilla.redhat.com/show_bug.cgi?id=1110401.

unix.7 is not clear about socket type of ioctl_type argument of
ioctl() function. The description of SIOCINQ is applicable only
for SOCK_STREAM socket. For SOCK_DGRAM, udp(7) man page gives
correct description of SIOCINQ

ldconfig.8

Michael Kerrisk

Place options in alphabetical order

Michael Kerrisk

Note glibc version number for '-l' option

Michael Kerrisk

Document -c/--format option

Michael Kerrisk

Add long form of some options

Michael Kerrisk [Patrick Horgan]

ld.so.conf uses only newlines as delimiters
mtk: confirmed by reading source of parse_conf() in
elf/ldconfig.c.

Michael Kerrisk

Document -V/--version option

Michael Kerrisk

Document -i/--ignore-aux-cache option

ld.so.8

Michael Kerrisk

Relocate "Hardware capabilities" to be a subsection under notes
This is more consistent with standard man-pages headings
and layout.

Michael Kerrisk

(Briefly) document LD_TRACE_PRELINKING

Michael Kerrisk

Remove duplicate description of LD_BIND_NOT

==== Changes in man-pages-3.81 =====

Released: 2015-03-02, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Ma Shimiao <mashimiao.fnst@cn.fujitsu.com>
Michael Kerrisk <mtk.manpages@gmail.com>
Peng Haitao <penght@cn.fujitsu.com>

Apologies if I missed anyone!

New and rewritten pages

attributes.7

Alexandre Oliva, Michael Kerrisk [Carlos O'Donell]
New page describing POSIX safety concepts

Global changes

Many pages

Peng Haitao, Michael Kerrisk
Reformat existing thread-safety information to use a tabular format, rather than plain text.

Changes to individual pages

mmap.2

Ma Shimiao
ATTRIBUTES: Note functions that are thread-safe
The function mmap() and munmap() are thread safe.

a64l.3

Ma Shimiao
Modify thread-safety information
As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

acos.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function acos(), acosf() and acosl() are thread safe.

acosh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function acosh(), acoshf() and acoshl() are thread safe.

addseverity.3

Ma Shimiao

ATTRIBUTES: Note function is thread-safe
The function addseverity() is thread safe.

aio_cancel.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function aio_cancel() is thread safe.

aio_fsync.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function aio_fsync() is thread safe.

aio_read.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function aio_read() is thread safe.

aio_suspend.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function aio_suspend() is thread safe.

aio_write.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function aio_write() is thread safe.

argz_add.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

asin.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function asin(), asinf() and asinl() are thread safe.

assert.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

assert_perror.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

atan2.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function atan2(), atan2f() and atan2l() are thread safe.

atanh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function atanh(), atanhf() and atanhl() are thread safe.

backtrace.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The markings match glibc markings.

btowc.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The function btowc() in glibc is thread safe.

Its marking matches glibc marking.

cabs.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function cabs(), cabsf() and cabsl() are thread safe.

acos.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function acos(), acosf() and acosl() are thread safe.

cacosh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The functions cacosh(), cacoshf() and cacoshl() in glibc are thread safe. Its markings match glibc markings.

canonicalize_file_name.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The functions canonicalize_file_name() in glibc is thread safe.
Its marking matches glibc marking.

carg.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function carg(), cargf() and cargl() are thread safe.

casin.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The functions casin(), casinl() and casinl() are thread safe.
Their markings match glibc markings.

casinh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The functions casinh(), casinhf() and casinhl() in glibc are
thread safe. Its markings match glibc markings.

catan.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The functions catan(), catanf() and catanl() are thread safe.
Their markings match glibc markings.

catanh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The functions catanh(), catanhf() and catanhl() in glibc are
thread safe. Its markings match glibc markings.

catopen.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions catopen() and catclose() are thread safe.

cfree.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The function cfree() in glibc is thread safe.
Its marking matches glibc marking.

clog10.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The functions clog10(), clog10f() and clog10l() in glibc are

thread safe. Its markings match glibc markings.

clog.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function clog(), clogf() and clogl() are thread safe.

closedir.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The function closedir() in glibc is thread safe.

Its marking matches glibc marking.

confstr.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The function confstr() is thread safe.

cosh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The functions cosh(), coshf() and coshl() in glibc are thread safe.

Its markings match glibc markings.

cpow.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The functions cpow(), cpowf() and cpowl() in glibc are thread safe.

Its markings match glibc markings.

crypt.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

ctermid.3

Ma Shimiao

Modify thread-safety information

According to the change of source code, ctermid's level has been changed from MT-Unsafe to MT-Safe. After modifying, the marking matches the glibc marking.

drand48.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

drand48_r.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

ecvt.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be same as glibc manual.

ecvt_r.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The markings match glibc markings.

encrypt.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

envz_add.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The markings match glibc markings.

exec.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions execl(), execlp(), execl(), execv(), execvp() and execvpe() are thread safe.

exit.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

exp10.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

exp2.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function `exp2()`, `exp2f()` and `exp2l()` are thread safe.

`exp.3`

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function `exp()`, `expf()` and `expl()` are thread safe.

`fclose.3`

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The function `fclose()` is thread safe.

Its marking matches glibc marking.

`fcloseall.3`

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

`fgetc.3`

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The markings match glibc markings.

`fgetwc.3`

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The markings match glibc markings.

`fgetws.3`

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The marking matches glibc marking.

`fmod.3`

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function `fmod()`, `fmodf()` and `fmodl()` are thread safe.

`fnmatch.3`

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function `fnmatch()` is thread safe with exceptions.

`fopen.3`

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The markings match glibc markings.

fopencookie.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

fread.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions fread() and fwrite() are thread safe.

gamma.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe
The functions gamma(), gammaf() and gammal() are not thread safe.

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the
thread-safety information to be the same as glibc manual.

getcontext.3

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the
thread-safety information to be the same as glibc manual.

getcwd.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions getcwd(), getwd() and get_current_dir_name() are
thread safe.

getdate.3

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the
thread-safety information to be the same as glibc manual.

getenv.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe
The functions getenv() and secure_getenv() are thread safe.

getfsent.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe
The functions setfsent(), getfsent(), endfsent(), getfsspec()
and getfsfile() are not thread safe.

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getgrent.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getgrnam.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getgrouplist.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function getgrouplist() is thread safe with exceptions.

getlogin.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getopt.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe

The functions getopt(), getopt_long() and getopt_long_only() are not thread safe.

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getpass.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getpwent.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

getpwnam.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

gets.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

getw.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions getw() and putw() are thread safe.

gnu_get_libc_version.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions gnu_get_libc_version() and gnu_get_libc_release() are thread safe.

hsearch.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

iconv.3

Peng Haitao

Modify thread-safety information

inet.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions inet_aton() and inet_addr() are thread safe with exceptions.

The functions inet_network(), inet_ntoa(), inet_makeaddr(), inet_lnaof() and inet_netof() are thread safe.

Modify thread-safety information

After researching and talking, we think inet_network() and inet_ntoa() should be marked with locale.

After changing, the markings match glibc markings.

inet_pton.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function inet_pton() is thread safe with exceptions.

iswdigit.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswdigit() is thread safe with exceptions.

iswgraph.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswgraph() is thread safe with exceptions.

iswlower.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswlower() is thread safe with exceptions.

iswprint.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswprint() is thread safe with exceptions.

iswpunct.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswpunct() is thread safe with exceptions.

iswspace.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswspace() is thread safe with exceptions.

iswupper.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswupper() is thread safe with exceptions.

iswxdigit.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function iswxdigit() is thread safe with exceptions.

j0.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function j0(), j1f() jnl() and so on are thread safe.

lio_listio.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
Its marking matches glibc marking.

log10.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function log10(), log10f() and log10l() are thread safe.

log2.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function log2(), log2f() and log2l() are thread safe.

log.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function log(), logf() and logl() are thread safe.

makecontext.3

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the
thread-safety information to be the same as glibc manual.

makedev.3

Peng Haitao

ATTRIBUTES: Note macros that are thread-safe
The macros makedev(), major() and minor() are thread safe.

malloc.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function malloc(), free(), calloc() and realloc() are
thread safe.

mblen.3

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the
thread-safety information to be the same as glibc manual.

mbstowcs.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

mbtowc.3

Peng Haitao

ATTRIBUTES: Note function that is not thread-safe
The function mbtowc() is not thread safe.

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

mktemp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe
The function mktemp() is thread safe.

mtrace.3

Peng Haitao

ATTRIBUTES: Note functions that are not thread-safe
The functions mtrace() and muntrace() are not thread safe.

nan.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The markings match glibc markings.

nl_langinfo.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions
The function nl_langinfo() is thread safe with exceptions.

opendir.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The markings match glibc markings.

pow10.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function pow10(), pow10f() and pow10l() are thread safe.

pow.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function pow(), powf() and powl() are thread safe.

pthread_setcancelstate.3

Michael Kerrisk

Add async-signal-safety information

ptsname.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

putenv.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-unsafe

The function putenv() is thread unsafe.

puts.3

Peng Haitao

ATTRIBUTES: Note functions that are thread-safe

The functions fputs(), fputc(), putc(), putchar() and puts() are thread safe.

putwchar.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The marking matches glibc marking.

qecvt.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be same as glibc manual.

rand.3

Peng Haitao

ATTRIBUTES: Note macros that are thread-safe

The functions rand(), rand_r() and srand() are thread safe.

random_r.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

readdir.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be same as glibc manual.

realpath.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

regex.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions
The functions regcomp() and regexec() are thread safe with exceptions.
The functions regerror() and regfree() are thread safe.

remainder.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The markings match glibc markings.

scalb.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function scalb(), scalbf() and scalbl() are thread safe.

setenv.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-unsafe
The function setenv() and unsetenv() are thread unsafe.

siginterrupt.3

Ma Shimiao

Modify thread-safety information
As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

sigset.3

Peng Haitao

ATTRIBUTES: Note macros that are thread-safe
The functions sigset(), sighold(), sigrelse() and sigignore() are thread safe.

sinh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function sinh(), sinh() and sinhl() are thread safe.

sqrt.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The function sqrt(), sqrtf() and sqrtl() are thread safe.

stdarg.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

stdio_ext.3

Ma Shimiao

Modify thread-safety information

Change the thread safety information to be the same as glibc.

strcasecmp.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions strcasecmp() and strncasecmp() are thread safe with exceptions.

strerror.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

strfmon.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

strfry.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strfry() is thread safe.

strftime.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function strftime() is thread safe with exceptions.

strptime.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function strptime() is thread safe with exceptions.

strtok.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the

thread-safety information to be the same as glibc manual.

strverscmp.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function strverscmp() is thread safe.

strxfrm.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The marking matches glibc marking.

syslog.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions openlog() and closelog() are thread safe.

The functions syslog() and vsyslog() are thread safe with exceptions.

tempnam.3

Peng Haitao

ATTRIBUTES: Note function that is thread-safe

The function tempnam() is thread safe.

termios.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

Ma Shimiao

Modify thread-safety information

As this is man page for Linux, we don't need thread safety information for BSD

tgamma.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The functions tgamma(), tgammaf() and tgammal() in glibc are thread safe. Its markings match glibc markings.

timegm.3

Peng Haitao

ATTRIBUTES: Note functions that are thread safe with exceptions

The functions timelocal() and timegm() are thread safe with exceptions.

tmpfile.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its markings match glibc markings.

tmpnam.3

Peng Haitao

Modify thread-safety information

When the argument `s` is `NULL`, `tmpnam()` should be `MT-Unsafe`.

toupper.3

Ma Shimiao

Modify thread-safety information

After researching and talking, we think `toupper()` and `tolower()` should not be marked with `locale`.

After changing, the markings match glibc markings.

tsearch.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The functions' markings match glibc markings.

ttynam.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be same as glibc manual.

tzset.3

Peng Haitao

ATTRIBUTES: Note function that is thread safe with exceptions

The function `tzset()` is thread safe with exceptions.

wcsdup.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

Its marking matches glibc marking.

wctomb.3

Ma Shimiao

Modify thread-safety information

As annotation in glibc manual is more detailed, change the thread-safety information to be the same as glibc manual.

y0.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The function `y0()`, `y1f()` `ynl()` and so on are thread safe.

man-pages.7

Michael Kerrisk

Refer reader to attributes(7) for details of ATTRIBUTES section

Michael Kerrisk

SEE ALSO: add attributes(7)

pthread.7

Michael Kerrisk

SEE ALSO: add attributes(7)

standards.7

Michael Kerrisk

SEE ALSO: add attributes(7)

==== Changes in man-pages-3.82 =====

Released: 2015-03-29, Paris

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

nptl.7

Michael Kerrisk

New page with details of the NPTL POSIX threads implementation

Newly documented interfaces in existing pages

user_namespaces.7

Eric W. Biederman [Michael Kerrisk]

Document /proc/[pid]/setgroups

Changes to individual pages

intro.1

Stéphane Aulery

Prompt is not % but \$

Stéphane Aulery

Various improvements

- Add reference to other common shells dash(1), ksh(1)
- Add a reference to stdout(3)
- Separate cp and mv descriptions
- Add examples of special cases of cd
- Add su(1) and shutdown(8) references for section Logout and poweroff
- Move Control-D to section Logout and poweroff
- Fix some little formatting errors

Stéphane Aulery

Add cross references cited

Stéphane Aulery

Order SEE ALSO section

clone.2

Josh Triplett

Document that clone() silently ignores CLONE_PID and CLONE_STOPPED

Normally, system calls return EINVAL for flags they don't support.

Explicitly document that clone does **not** produce an error for these two obsolete flags.

Michael Kerrisk

Small rewording of explanation of clone() wrt threads

Clone has so many effects that it's an oversimplification to say that the **main** use of clone is to create a thread. (In fact, the use of clone() to create new processes may well be more common, since glibc's fork() is a wrapper that calls clone().)

getgroups.2

Michael Kerrisk [Shawn Landden]

Add discussion of NPTL credential-changing mechanism

At the kernel level, credentials (UIDs and GIDs) are a per-thread attribute. NPTL uses a signal-based mechanism to ensure that when one thread changes its credentials, all other threads change credentials to the same values. By this means, the NPTL implementation conforms to the POSIX requirement that the threads in a process share credentials.

Michael Kerrisk

ERRORS: add EPERM for the case where /proc/PID/setgroups is "deny"

Michael Kerrisk

Note capability associated with EPERM error for setgroups(2)

Michael Kerrisk

Refer reader to user_namespaces(7) for discussion of /proc/PID/setgroups

The discussion of /proc/PID/setgroups has moved from proc(5) to user_namespaces(7).

getpid.2

Michael Kerrisk

Note that getpid() returns 0 if parent is in different PID namespace

getsockopt.2

Konstantin Shemyak

Note RETURN VALUE details when netfilter is involved

ioctl_list.2

Heinrich Schuchardt

SEE ALSO ioctl_fat.2

Add FAT_IOCTL_GET_VOLUME_ID

SEE ALSO `ioctl_fat.2`

Heinrich Schuchardt

`include/linux/ext2_fs.h`

Include `linux/ext2_fs.h` does not contain any `ioctl` definitions anymore.

Request codes `EXT2_IOC*` have been replaced by `FS_IOC*` in `linux/fs.h`.

Some definitions of `FS_IOC_*` use `long*` but the actual code expects `int*` (see `fs/ext2/ioctl.c`).

`msgop.2`

Bill Pemberton

Remove `EAGAIN` as `msgrcv()` `errno`

The list of `errno`s for `msgrcv()` lists both `EAGAIN` and `ENOMSG` as the `errno` for no message available with the `IPC_NOWAIT` flag.

`ENOMSG` is the `errno` that will be set.

Bill Pemberton

Add an example program

`open.2`

Michael Kerrisk [Jason Vas Dias]

Mention blocking semantics for FIFO opens

See https://bugzilla.kernel.org/show_bug.cgi?id=95191

`seccomp.2`

Jann Horn [Kees Cook, Mikael Pettersson, Andy Lutomirski]

Add note about `alarm(2)` not being sufficient to limit runtime

Jann Horn

Explain blacklisting problems, expand example

Michael Kerrisk [Kees Cook]

Add mention of `libseccomp`

`setgid.2`

Michael Kerrisk

Clarify that `setgid()` changes all GIDs when caller has `CAP_SETGID`

Michael Kerrisk [Shawn Landden]

Add discussion of NPTL credential-changing mechanism

At the kernel level, credentials (UIDs and GIDs) are a per-thread attribute. NPTL uses a signal-based mechanism to ensure that when one thread changes its credentials, all other threads change credentials to the same values. By this means, the NPTL implementation conforms to the POSIX requirement that the threads in a process share credentials.

`setresuid.2`

Michael Kerrisk [Shawn Landden]

Add discussion of NPTL credential-changing mechanism

At the kernel level, credentials (UIDs and GIDs) are a per-thread attribute. NPTL uses a signal-based mechanism to ensure that when one thread changes its credentials, all other threads change credentials to the same values. By this means, the NPTL implementation conforms to the POSIX requirement that the threads in a process share credentials.

setreuid.2

Michael Kerrisk [Shawn Landden]

Add discussion of NPTL credential-changing mechanism

At the kernel level, credentials (UIDs and GIDs) are a per-thread attribute. NPTL uses a signal-based mechanism to ensure that when one thread changes its credentials, all other threads change credentials to the same values. By this means, the NPTL implementation conforms to the POSIX requirement that the threads in a process share credentials.

Michael Kerrisk

SEE ALSO: add_credentials(7)

setuid.2

Michael Kerrisk

Clarify that setuid() changes all UIDs when caller has CAP_SETUID

Michael Kerrisk [Shawn Landden]

Add discussion of NPTL credential-changing mechanism

At the kernel level, credentials (UIDs and GIDs) are a per-thread attribute. NPTL uses a signal-based mechanism to ensure that when one thread changes its credentials, all other threads change credentials to the same values. By this means, the NPTL implementation conforms to the POSIX requirement that the threads in a process share credentials.

sigaction.2

Michael Kerrisk

Add discussion of rt_sigaction(2)

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc wrapper gives an EINVAL error on attempts to change the disposition of either of the two real-time signals used by NPTL.

sigpending.2

Michael Kerrisk

Add discussion of rt_sigpending(2)

sigprocmask.2

Michael Kerrisk

Add discussion of rt_sigprocmask(2)

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc wrapper silently ignores attempts to block the two real-time signals used by NPTL.

sigreturn.2

Michael Kerrisk

Add discussion of `rt_sigreturn(2)`

sigsuspend.2

Michael Kerrisk

Add discussion of `rt_sigsuspend(2)`

sigwaitinfo.2

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc wrappers silently ignore attempts to wait for signals used by NPTL.

Michael Kerrisk

Add discussion of `rt_sigtimedwait(2)`

socket.2

Heinrich Schuchardt

SEE ALSO `close(2)`

The description mentions `close(2)`. Hence it should also be referenced in the SEE ALSO section.

syscall.2

Jann Horn

Add x32 ABI

umount.2

Eric W. Biederman

Document the effect of shared subtrees on `umount(2)`

Eric W. Biederman

Correct the description of `MNT_DETACH`

I recently realized that I had been reasoning improperly about what `umount(MNT_DETACH)` did based on an insufficient description in the `umount.2` man page, that matched my intuition but not the implementation.

When there are no submounts, `MNT_DETACH` is essentially harmless to applications. Where there are submounts, `MNT_DETACH` changes what is visible to applications using the `detach` directories.

Michael Kerrisk

Move "shared mount + `umount`" text to a subsection in NOTES

aio_return.3

Stéphane Aulery

Document the return value on error

Reported by Alexander Holler <holler@ahsoftware.de>

clock.3

Stéphane Aulery

CLOCKS_PER_SEC = 1000000 is required by XSI, not POSIX

Debian Bug #728213 reported by Tanaka Akira <akr@fsij.org>

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=728213>

dlopen.3

Michael Kerrisk

Amend error in description of dlclose() behavior

The current text says that unloading depends on whether the reference count falls to zero *and no other libraries are using symbols in this library*. That latter text has been there since man-pages-1.29, but it seems rather dubious. How could the implementation know whether other libraries are still using symbols in this library? Furthermore, no other implementation's man page mentions this point. Seems best to drop this point.

Michael Kerrisk

Add some details for RTLD_DEFAULT

Michael Kerrisk

Add some details on RTLD_NEXT and preloading

Michael Kerrisk

RTLD_NEXT works for symbols generally, not just functions

The common use case is for functions, but RTLD_NEXT also applies to variable symbols.

Michael Kerrisk

dlclose() recursively closes dependent libraries

Note that dlclose() recursively closes dependent libraries that were loaded by dlopen()

Michael Kerrisk

Rename second dlopen() argument from "flag" to "flags"

This is more consistent with other such arguments

Michael Kerrisk

Reformat text on RTLD_DEFAULT and RTLD_NEXT

fmemopen.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The markings match glibc markings.

fpathconf.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The marking matches glibc marking.

fputc.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The marking matches glibc marking.

fputws.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

fseek.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The markings match glibc markings.

fseeko.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The markings match glibc markings.

gcvt.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

getline.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The marking matches glibc marking.

getwchar.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

hypot.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The markings match glibc markings.

iconv_open.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

if_nameindex.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The markings match glibc markings.

initgroups.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The markings match glibc markings.

mq_open.3

Torvald Riegel

Add EINVAL error case for invalid name

This behavior is implementation-defined by POSIX. If the name doesn't start with a '/', glibc returns EINVAL without attempting the syscall.

popen.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe
The marking matches glibc marking.

pthread_kill.3

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc pthread_kill() function gives an error on attempts to send either of the real-time signals used by NPTL.

pthread_sigmask.3

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc implementation silently ignores attempts to block the two real-time signals used by NPTL.

pthread_sigqueue.3

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc pthread_sigqueue() function gives an error on attempts to send either of the real-time signals used by NPTL.

resolver.3

Stéphane Aulery [Jakub Wilk]

Document missing options used by _res structure indicate defaults

Missing options: RES_INSECURE1, RES_INSECURE2, RES_NOALIASES, USE_INET6, ROTATE, NOCHECKNAME, RES_KEEPTSIG, BLAST, USEBSTRING, NOIP6DOTINT, USE_EDNS0, SNGLKUP, SNGLKUPREOP, RES_USE_DNSSEC, NOTLDQUERY, DEFAULT

Written from the glibc source and resolv.conf.5.

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=527136>

Stéphane Aulery

RES_IGNTC is implemented

rint.3

Matt Turner

Document that halfway cases are rounded to even

Per IEEE-754 rounding rules.

The round(3) page describes the behavior of rint and nearbyint in the halfway cases by saying:

These functions round x to the nearest integer, but round halfway cases away from zero [...], instead of to the nearest even integer like rint(3)

sigqueue.3

Michael Kerrisk

NOTES: add "C library/kernel ABI differences" subheading

Michael Kerrisk

Clarify version info (mention rt_sigqueueinfo())

sigsetops.3

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc sigfillset() function excludes the two real-time signals used by NPTL.

sigwait.3

Michael Kerrisk

Note treatment of signals used internally by NPTL

The glibc sigwait() silently ignore attempts to wait for signals used by NPTL.

strcoll.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe

The markings match glibc markings.

strdup.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

The marking matches glibc marking.

tzset.3

J William Piggott

Add 'std' quoting information

ulimit.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

wcstombs.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

wctob.3

Ma Shimiao

ATTRIBUTES: Note function that is thread-safe
The marking matches glibc marking.

xdr.3

Taisuke Yamada

Clarified incompatibility and correct usage of XDR API
See <http://bugs.debian.org/628099>

console_codes.4

Scot Doyle

Add Console Private CSI sequence 15
An undocumented escape sequence in drivers/tty/vt/vt.c brings the
previously accessed virtual terminal to the foreground.
mtk: Patch misattributed to Taisuke Yamada in Git commit
because of a muck up on my part.

Michael Kerrisk

Add kernel version number for CSI sequence 15

random.4

Michael Kerrisk

Fix permissions shown for the devices
These days, the devices are RW for everyone.

filesystems.5

Michael Kerrisk

Remove dubious claim about comparative performance of ext2
Perhaps it was the best filesystem performance-wise in
the 20th century, when that text was written. That probably
ceased to be true quite a long time ago, though.

Stéphane Aulery

Add cross references for ext filesystems

Stéphane Aulery

Specifies the scope of this list and its limits.

host.conf.5

hosts.5

resolv.conf.5

Stéphane Aulery [Paul E Condon]

Cross references of these pages.

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=298259>

host.conf.5

Stéphane Aulery

Rework discussion of nospoof, spoofalert, spoof and RESOLV_SPOOF_CHECK

The keywords and environment variables "nospoof", "spoofalert", "spoof" and RESOLV_SPOOF_CHECK were added to glibc 2.0.7 but never implemented

Move descriptions to historical section and reorder it for clarity

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=773443>

hosts.5

Stéphane Aulery [Vincent Lefevre]

Mention 127.0.1.1 for FQDN and IPv6 examples

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=562890>

proc.5

Taisuke Yamada

Document /proc/PID/status VmPin field

See <https://bugs.launchpad.net/bugs/1071746>

Michael Kerrisk

Document (the obsolete) /proc/PID/seccomp

Michael Kerrisk

Replace description of 'uid_map' with a reference to user_namespaces(7)

All of the information in proc(5) was also present in user_namespaces(7), but the latter was more detailed and up to date.

Taisuke Yamada

Fix SELinux /proc/pid/attr/current example

Since the /proc/pid/attr API was added to the kernel, there have been a couple of changes to the SELinux handling of /proc/pid/attr/current. Fix the SELinux /proc/pid/attr/current example text to reflect these changes and note which kernel versions first included the changes.

securetty.5

Stéphane Aulery [Nicolas FRANCOIS]

Note that the pam_securetty module also uses this file

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=528015>

This patch is a modified version of the one proposed without parts specific to Debian.

boot.7

Michael Witten

Copy edit

While a lot of the changes are issues of presentation, there are also issues of grammar and punctuation.

Michael Witten

Mention `systemd(1)` and its related `bootup(7)`

It's important that the reader receive contemporary information.

credentials.7

Michael Kerrisk

SEE ALSO: add pthreads(7)

Michael Kerrisk

Add reference to nptl(7)

feature_test_macros.7

Michael Kerrisk

Update discussion of `_FORTIFY_SOURCE`

Since the initial implementation a lot more checks were added.

Describe all the checks would be too verbose (and would soon fall out of date as more checks are added). So instead, describe the kinds of checks that are done more generally.

Also a few other minor edits to the text.

hier.7

Stéphane Aulery

First patch of a series to achieve compliance with FHS 2.3

Stéphane Aulery

SGML and XML directories are separated in FHS 2.3

Stéphane Aulery

Add missing directories defined by FHS 2.3

Stéphane Aulery

Identify which directories are optional

Stéphane Aulery

Document `/initrd`, `/lost+found` and `/sys`

Ubuntu Bug #70094 reported by Brian Beck

<https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/70094>

Stéphane Aulery

Explain YP, which is not obvious

ipv6.7

Stéphane Aulery [David Madore]

`SOL_IPV6` and other `SOL_*` options socket are not portable

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=472447>

man-pages.7

Michael Kerrisk [Bill Pemberton]

Add `indent(1)` command that produces desired formatting for example code

Stéphane Aulery

Improve description of sections in accordance with intro pages

packet.7

Michael Kerrisk

Rework description of fanout algorithms as list

Michael Kerrisk

Remove mention of needing UID 0 to create packet socket

The existing text makes no sense. The check is based purely on a capability check. (Kernel function `net/packet/af_packet.c::packet_create()`)

Michael Kerrisk

Remove text about ancient glibc not defining SOL_PACKET

This was fixed in glibc 2.1.1, which is a long while ago. And in any case, there is nothing special about this case; it's just one of those times when glibc lags.

Michael Kerrisk

Rework description of 'sockaddr_ll' fields as a list

Michael Kerrisk

Various minor edits

pthread.7

Michael Kerrisk

Add references to `nptl(7)`

raw.7

Michael Kerrisk

Rephrase "Linux 2.2" language to "Linux 2.2 or later"

The man page was written in the Linux 2.2 timeframe, and some phrasing was not future-proof.

signal.7

Michael Kerrisk

Note when Linux added realtime signals

Michael Kerrisk

Correct the range of realtime signals

Michael Kerrisk

Summarize 2.2 system call changes that resulted from larger signal sets

Michael Kerrisk

SEE ALSO: add `nptl(7)`

tcp.7

Peter Adkins

Document removal of `TCP_SYNQ_HSIZE`

Looking over the man page for 'tcp' I came across a reference to tuning the '`TCP_SYNQ_HSIZE`' parameter when increasing '`tcp_max_syn_backlog`' above 1024. However, this static sizing was removed back in Linux 2.6.20 in favor of dynamic scaling - as

part of commit 72a3effaf633bcae9034b7e176bdbc78d64a71db.

user_namespaces.7

Eric W. Biederman

Update the documentation to reflect the fixes for negative groups

Files with access permissions such as rwx---rwx give fewer permissions to their group than they do to everyone else. Which means dropping groups with `setgroups(0, NULL)` actually grants a process privileges.

The unprivileged setting of `gid_map` turned out not to be safe after this change. Privileged setting of `gid_map` can be interpreted as meaning yes it is ok to drop groups. [Eric additionally noted: Setting of `gid_map` with `privilege` has been clarified to mean that dropping groups is ok. This allows existing programs that set `gid_map` with `privilege` to work without changes. That is, `newgidmap(1)` continues to work unchanged.]

To prevent this problem and future problems, user namespaces were changed in such a way as to guarantee a user can not obtain credentials without privilege that they could not obtain without the help of user namespaces.

This meant testing the effective user ID and not the filesystem user ID, as `setresuid(2)` and `setregid(2)` allow setting any process UID or GID (except the supplementary groups) to the effective ID.

Furthermore, to preserve in some form the useful applications that have been setting `gid_map` without privilege, the file `/proc/[pid]/setgroups` was added to allow disabling `setgroups(2)`. With `setgroups(2)` permanently disabled in a user namespace, it again becomes safe to allow writes to `gid_map` without privilege.

Michael Kerrisk

Rework some text describing permission rules for updating map files

No (intentional) change to the facts, but this restructuring should make the meaning easier to grasp.

Michael Kerrisk

Update kernel version associated with 5-line limit for map files

As at Linux 3.18, the limit is still five lines, so mention the more recent kernel version in the text.

Michael Kerrisk [Alban Crequy]

Handle `/proc/PID/setgroups` in the example program

Michael Kerrisk

Rework text describing restrictions on updating `/proc/PID/setgroups`

No (intentional) changes to factual description, but the restructured text is hopefully easier to grasp.

Michael Kerrisk

Explain why the /proc/PID/setgroups file was added

ldconfig.8

Michael Kerrisk

Note use of /lib64 and /usr/lib64 on some 64-bit architectures

ld.so.8

Michael Kerrisk

Note the use of /lib64 and /usr/lib64 on some 64-bit architectures

===== Changes in man-pages-3.83 =====

Released: 2015-04-19, Munich

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

posix_madvise.3

Michael Kerrisk

New page documenting posix_madvise(3)

ftw.3

Michael Kerrisk

Reorganize the page to give primacy to nftw()

nftw() is the better API, and POSIX.1-2008 marks ftw() obsolete.

Newly documented interfaces in existing pages

getdents.2

Michael Kerrisk [Dima Tisnek]

Document getdents64()

See https://bugzilla.kernel.org/show_bug.cgi?id=14795

mount.2

Michael Kerrisk, Theodore Ts'o [Eric Sandeen, Andreas Dilger,
Omar Sandoval, Darrick J. Wong]

Document MS_LAZYTIME

proc.5

Michael Kerrisk

Document /proc/sys/kernel/randomize_va_space

Michael Kerrisk

Document /proc/PID/fdinfo epoll format

Michael Kerrisk

Describe /proc/PID/fdinfo eventfd format

Michael Kerrisk

Document /proc/PID/fdinfo signalfd format

New and changed links

newfstatat.2

Michael Kerrisk

New link to fstatat64.2

prlimit64.2

Michael Kerrisk

New link to getrlimit.2

Global changes

Various section 3 math pages

Michael Kerrisk

Note that these functions are also in POSIX.1-2001 and POSIX.1-2008

Changes to individual pages

getent.1

Robin H. Johnson

Document options

The options to getent are now documented, after being around for nearly a decade without changes.

Michael Kerrisk

Document help and version options

fallocate.2

Michael Kerrisk

Fix kernel version number for FALLOC_FL_ZERO_RANGE

FALLOC_FL_ZERO_RANGE was added in 3.15, not 3.14.

Michael Kerrisk

Note that SMB3 added FALLOC_FL_ZERO_RANGE support in Linux 3.17

getrlimit.2

Michael Kerrisk

Note that the underlying system call for prlimit() is prlimit64()

Michael Kerrisk

Remove "_FILE_OFFSET_BITS == 64" from prlimit() FTM requirements

"_FILE_OFFSET_BITS == 64" is not needed to get the prlimit() declaration.

ioctl_list.2

Nikos Mavrogiannopoulos

SIOCADDRT accepts in6_rtmsg in INET6 protocol

Heinrich Schuchardt

TFD_IOC_SET_TICKS

timerfd_create.2 mentions TFD_IOC_SET_TICKS. We should add it to ioctl_list.2, too.

lseek.2

Michael Kerrisk

Advise reader to use lseek(2) instead

Michael Kerrisk

lseek() exists on 32-bit platforms to support seeking to large offsets

madvise.2

David Rientjes

Specify MADV_REMOVE returns EINVAL for hugetlbf

madvise(2) actually returns with error EINVAL for MADV_REMOVE when used for hugetlb VMAs, not EOPNOTSUPP, and this has been the case since MADV_REMOVE was introduced in commit f6b3ec238d12 ("madvise(MADV_REMOVE): remove pages from tmpfs shm backing store"). Specify the exact behavior.

Michael Kerrisk

SEE ALSO: add posix_madvise(2)

poll.2

Michael Kerrisk [Andreas Baak]

SEE ALSO: add epoll(7)

posix_fadvise.2

Michael Kerrisk

Add "C library/kernel ABI differences" subsection

pread.2

Michael Kerrisk

Add "C library/kernel ABI differences" subsection

seccomp.2

Michael Kerrisk [Pierre Chifflier, Kees Cook]

Note that seccomp_data is read-only

stat.2

Michael Kerrisk

Add some details on various "stat" versions

Three versions of "stat" appeared on 32-bit systems, dealing with structures of different (increasing) sizes. Explain some of the details, and also note that the situation is simpler on modern 64-bit architectures.

Michael Kerrisk

Add mention of newfstatat()

The underlying system call for fstatat() is newfstatat() on some architectures.

symlink.2

Michael Kerrisk [Jonny Grant]

ERRORS: add linkpath="" case for ENOENT

syscalls.2

Michael Kerrisk

Remove prlimit()

There really is only the prlimit64() system call.

Michael Kerrisk

Add some details about the "multiple versions of system calls"

The multiple-system-call-version phenomenon is particularly a feature of older 32-bit platforms. Hint at that fact in the text.

timerfd_create.2

Cyrill Gorcunov [Michael Kerrisk]

Document TFD_IOC_SET_TICKS ioctl() operation

Michael Kerrisk

Add some details to C library/kernel ABI differences

unshare.2

Michael Kerrisk [Fabien Pichot]

Remove mention of "System V" from discussion of CLONE_NEWIPC

These days, CLONE_NEWIPC also affects POSIX message queues.

asprintf.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

carg.3

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

ccos.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

ccosh.3

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

cexp.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

clock.3

Ma Shimiao

ATTRIBUTES: Note functions that is thread-safe

clog.3

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

csin.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

csinh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

csqrt.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Simplify description of what these functions calculate

ctan.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

ctanh.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Add introductory sentence explaining what these functions calculate

ctime.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

exec.3

Michael Kerrisk

SYNOPSIS: Clarify calling signature for execl() and execlp()

Michael Kerrisk [Andreas Baak]

Correct prototype for execlp()

Make the prototype shown into correct C.

ftw.3

Michael Kerrisk [Felix Sedlmeier]

ftw() and nftw() differ for the non-stat-able symlink case

The POSIX specification of ftw() says that an un-stat-able symlink may yield either FTW_NS or FTW_SL. The specification of nftw() does not carry this statement.

Michael Kerrisk

CONFORMING TO: add POSIX.1-2008

Michael Kerrisk

Update POSIX version references in NOTES

getcwd.3

Jann Horn [Michael Kerrisk]

Note behavior for unreachable current working directory

Michael Kerrisk

Add ENOMEM error

gethostbyname.3

Michael Kerrisk [Jonny Grant]

Clarify that NO_ADDRESS and NO_DATA are synonyms

Michael Kerrisk

Add some detail for NO_DATA

Text consistent with POSIX and FreeBSD's gethostbyname() man page.

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

getnetent.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

get_nprocs_conf.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getutent.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

glob.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

insque.3

Ma Shimiao

ATTRIBUTES: Note functions that are thread-safe

login.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

lseek64.3

Michael Kerrisk

Clarify details with respect to 32-bit and 64-bit systems

malloc.3

Michael Kerrisk

Add ENOMEM error

mbsnrtowcs.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

mbsrtowcs.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

mq_notify.3

Michael Kerrisk

Add "C library/kernel ABI differences" subsection

mq_open.3

Michael Kerrisk [Fabien Pichot]

NOTES: explain differences from the underlying system call

The check for the slash at the start of a pathname is done in glibc

openpty.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

perror.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

posix_memalign.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

printf.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

Walter Harms [Michael Kerrisk]

Simplify the example code

qsort.3

Michael Kerrisk [Rob Landley]

alphasort() and versionsort() are not suitable for 'compar'

In glibc 2.10, the prototypes of `alphasort()` and `versionsort()` were changed so that the arguments switched from `'const void *'` to `'const struct dirent **'`, to match the POSIX.1-2008 specification of `alphasort()`. As such, compiler warnings will result if these functions are used as the arguments of `qsort()`.

```
warning: passing argument 4 of 'qsort' from incompatible
pointer type
expected '__compar_fn_t' but argument is of type
'int (*)(const struct dirent **, const struct dirent **)'
```

Therefore, remove the ancient NOTES text suggesting that `alphasort()` and `versionsort()` can be used as suitable `'compar'` arguments for `qsort()`.

realpath.3

Michael Kerrisk [Jon Grant]
Add ENOMEM error

scandir.3

Michael Kerrisk
glibc 2.10 changed the argument types for `alphasort()` and `versionsort()`
Zeng Linggang
ATTRIBUTES: Note functions that are thread-safe

scanf.3

Zeng Linggang
ATTRIBUTES: Note functions that are thread-safe

setnetgrent.3

Zeng Linggang
ATTRIBUTES: Note functions that aren't thread-safe

significand.3

Ma Shimiao
ATTRIBUTES: Note functions that are thread-safe

strcasecmp.3

Michael Kerrisk [Jonny Grant]
Clarify that `strcasecmp()` does a byte-wise comparison
Michael Kerrisk
CONFORMING TO: add POSIX.1-2008

unlocked_stdio.3

Zeng Linggang
ATTRIBUTES: Note functions that aren't thread-safe

updwtmp.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

wrtomb.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

wcsnrtoombs.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

wcsrtombs.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

wordexp.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

wprintf.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

proc.5

Michael Kerrisk

Describe "mnt_id" field of /proc/PID/fdinfo

Michael Kerrisk

Note that abstract sockets are included in /proc/net/unix

Michael Kerrisk

Update description /proc/sys/unix 'Type' field

The existing text was very crufty. UNIX domain sockets

support more than SOCK_STREAM for a _very_ long time now.

Michael Kerrisk

Add some detail to /proc/PID/timers

Michael Kerrisk [Vlastimil Babka]

Enhance discussion of /proc/PID/status 'VmSwap' field

epoll.7

Michael Kerrisk

SEE ALSO: add poll(2) and select(2)

icmp.7

YOSHIFUJI Hideaki/

Document net.ipv4.ping_group_range knob

nptl.7

Michael Kerrisk

Add reference to timer_create(2)

Released: 2015-05-07, Munich

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

get_phys_pages.3

William Woodruff

Document get_phys_pages() and get_avphys_pages()

loop.4

Urs Thuermann, Michael Kerrisk

New page documenting the loop device

xattr.7

Andreas Gruenbacher

Import attr(5) man page from the 'attr' project

After discussions with Andreas Gruenbacher, it makes sense to move this page into man-pages, since it mostly relates to kernel details. Since this is an overview page, we'll move it to Section 7.

Michael Kerrisk

Rename page

"xattr" is a more meaningful name than "attr" (it resonates with the names of the system calls), so as long as we are moving the page to a new section, we'll change the name as well,

and retain an `acl(5)` link so that old references remain valid.

Newly documented interfaces in existing pages

`mmap.2`

Michael Kerrisk [Andi Kleen]

Document `MAP_HUGE_2MB`, `MAP_HUGE_1GB`, and `MAP_HUGE_SHIFT`

`shmget.2`

Michael Kerrisk [Andi Kleen]

Document `SHM_HUGE_2MB`, `SHM_HUGE_1GB`, and `SHM_HUGE_SHIFT`

`resolver.3`

Michael Kerrisk [Jonathan Nieder]

Add descriptions of some other resolver functions

Add `res_ninit()`, `res_nquery()`, `res_nsearch()`,
and `res_nquerydomain()`, `res_nmkquery()`, `res_nsend()`.

`tty_ioctl.4`

Frédéric Maria [Stephane Fillod, Andreas Heiduk]

Document `TIOCMIWAIT` and `TIOCGICOUNT`

Michael Kerrisk

Document `TIOCGEXCL`

Michael Kerrisk

Document `TIOGCPKT`

Michael Kerrisk

Document `TIOCSPTLCK`

Michael Kerrisk

Document `TIOCGPTLCK`

New and changed links

`CMSG_DATA.3`

Michael Kerrisk

New link to `msg(3)`

`CMSG_LEN.3`

Michael Kerrisk

New link to `msg(3)`

`dprintf.3`

Michael Kerrisk

Convert to a link to `printf.3`

get_avphys_pages.3

William Woodruff

New link to new get_phys_pages.3 page

res_ninit.3

res_nmkquery.3

res_nquery.3

res_nquerydomain.3

res_nsearch.3

res_nsend.3

Michael Kerrisk

New links to resolver(3) man page

loop-control.4

Michael Kerrisk

New link to loop.4

attr.5

Michael Kerrisk

New link to xattr(7)

Global changes

chown.2

execve.2

prctl.2

truncate.2

proc.5

capabilities.7

ld.so.8

Michael Kerrisk

Tighter wording: 'mode bit' rather than 'permission bit'

For sticky, set-UID, and set-GID mode bits (as used in POSIX).

Changes to individual pages

add_key.2

keyctl.2

request_key.2

Michael Kerrisk

SEE ALSO: add_keyrings(7)

add_key.2

request_key.2

Michael Kerrisk

SEE ALSO: add keyctl(3)

epoll_ctl.2

Michael Kerrisk

After EPOLLHUP, EOF will be seen only after all data has been consumed

epoll_wait.2

Michael Kerrisk

Clarify that signal mask treatment in epoll_pwait() is per-thread
s/sigprocmask()/pthread_sigmask()/

fcntl.2

Michael Kerrisk [Vegard Nossum]

Note an F_SETSIG corner case

get_mempolicy.2, set_mempolicy

Brice Goglin

Policy is per thread, not per process

getxattr.2

listxattr.2

removexattr.2

setxattr.2

capabilities.7

Michael Kerrisk

Adjust "attr(5)" references to "xattr(7)"

ioctl.2

Michael Kerrisk

SEE ALSO: add console_ioctl(2) and tty_ioctl(2)

listxattr.2

xattr.7

Michael Kerrisk

Describe listxattr(2) E2BIG error and document it as a BUG

mkdir.2

Michael Kerrisk

Wording fixes + point reader at stat(2) for explanation of file mode

Michael Kerrisk [Andreas Grünbacher]

Further tweaks to text on S_ISVTX and 'mode' argument

mknod.2

Michael Kerrisk

Rewordings + point reader at stat(2) for details of mode bits

mmap.2

Michael Kerrisk

Remove text that implies that `munmap()` syncs `MAP_SHARED` mapping to file

The existing text in this page:

`MAP_SHARED` Share this mapping. Updates to the mapping are visible to other processes that map this file, and are carried through to the underlying file. The file may not actually be updated until `msync(2)` or `munmap()` is called.

implies that `munmap()` will sync the mapping to the underlying file. POSIX doesn't require this, and some light reading of the code and some light testing (`fsync()` after `munmap()` of a large file) also indicates that Linux doesn't do this.

`msync.2`

Michael Kerrisk

Rework text of DESCRIPTION

Rewrite the text somewhat, for easier comprehension.

No (intentional) changes to factual content

`nfsservctl.2`

Michael Kerrisk [J. Bruce Fields]

Note that `nfsservctl()` was replaced by files in `nfsd` filesystem

`open.2`

Michael Kerrisk [Andreas Gruenbacher]

`open()` honors the `S_ISVTX`, `S_ISUID`, and `S_ISGID` bits in 'mode'

Michael Kerrisk

Tighten wording: use 'mode bit' rather than 'permission bit'

Michael Kerrisk [NeilBrown]

BUGS: `O_CREAT` | `O_DIRECTORY` succeeds if pathname does not exist

`poll.2`

Michael Kerrisk [Ian Pilcher]

Clarify that signal mask treatment in `ppoll()` is per-thread

`s/sigprocmask()/pthread_sigmask()/`

Michael Kerrisk [Sam Varshavchik]

After `POLLHUP`, EOF will be seen only after all data has been consumed

Michael Kerrisk

Make it clearer which bits are ignored in 'events'

`prctl.2`

Michael Kerrisk [David Wilcox, Filipe Brandeburger]

Note that "parent" for purposes of `PR_SET_DEATHSIG` is a `*thread*`

See https://bugzilla.kernel.org/show_bug.cgi?id=43300

`sendfile.2`

Michael Kerrisk [Jason Newton]

Note that sendfile does not support O_APPEND for 'out_fd'

See https://bugzilla.kernel.org/show_bug.cgi?id=82841

Michael Kerrisk [Gregor Jasny]

RETURN VALUE: note the possibility of "short sends"

See https://bugzilla.kernel.org/show_bug.cgi?id=97491

Michael Kerrisk [Askar Safin]

Clarify text on 'out_fd' and regular files in Linux 2.4

See https://bugzilla.kernel.org/show_bug.cgi?id=86001

shutdown.2

Michael Kerrisk [Stéphane Aulery]

BUGS: UNIX domain sockets now detect invalid 'how' values

Bug fixed in Linux 3.7.

See https://bugzilla.kernel.org/show_bug.cgi?id=47111

sigaction.2

Michael Kerrisk

Refer the reader to fcntl(2) F_SETSIG for further details on si_fd

stat.2

Jann Horn

Add note about stat() being racy

Andreas Gruenbacher

Improve description of some mode constants

Michael Kerrisk [Andreas Grünbacher]

Remove excessive leading zeros on some constants

Michael Kerrisk

Add text on POSIX terms "file mode bits" and "file permission bits"

Recent changes to various pages employ this distinction.

Michael Kerrisk

Tighten wording: use 'mode bit' rather than 'permission bit'

According to POSIX, the 9 UGO*RWX bits are permissions, and

'mode' is used to refer to collectively to those bits plus sticky,

set-UID, and set_GID bits.

syslog.2

Michael Kerrisk

SEE ALSO: add dmesg(1)

umask.2

open.2

mknod.2

mkdir.2

Andreas Gruenbacher

Explain what default ACLs do

Explain the effect that default ACLs have (instead of the umask)

in umask.2. Mention that default ACLs can have an affect in

open.2, mknod.2, and mkdir.2.

unshare.2

Michael Kerrisk [Florian Weimer]

Give the reader a hint that unshare() works on processes or threads

See https://bugzilla.kernel.org/show_bug.cgi?id=59281

atexit.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

bsearch.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

cmmsg.3

Michael Kerrisk [Christopher Head]

Fix error in SCM_RIGHTS code sample

Remove erroneous second initialization of msg.msg_controllen in the example code for SCM_RIGHTS.

See https://bugzilla.kernel.org/show_bug.cgi?id=15952

CPU_SET.3

Chris Metcalf

Clarify language about "available" cpus

The CPU_SET.3 man page uses the adjective "available" when explaining what the argument to CPU_SET() means. This is confusing, since "available" isn't well-defined. The kernel has a set of adjectives (possible, present, online, and active) that qualify cpus, but normally none of these are what the cpu_set_t bit index means: it's just "which cpu", using the kernel's internal numbering system, even if that cpu isn't possible or present.

This change removes the word "available" and adds a sentence warning that cpu sets may not be contiguous due to dynamic cpu hotplug, etc.

err.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

ftw.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

gethostbyname.3

Carlos O'Donell

NSS plugins searched first

Carlos O'Donell

"order" is obsolete

gethostid.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

getmntent.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

get_nprocs_conf.3

Michael Kerrisk

Use exit() rather than return in main()

getopt.3

Michael Kerrisk [Guy Harris]

Remove crufty BUGS section

See https://bugzilla.kernel.org/show_bug.cgi?id=90261

iconv_close.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

inet_ntop.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

longjmp.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

lsearch.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

mcheck.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

on_exit.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

printf.3

Michael Kerrisk [Egmont Koblinger]

Merge dprintf() and vdprintf() discussion into this page

Michael Kerrisk

SEE ALSO: add puts(3)

Michael Kerrisk

Move return value discussion to proper RETURN VALUE section

putpwent.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

qsort.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

regex.3

Michael Kerrisk [Laurence Gonsalves]

Fix error in description of 'cflags'

'cflags' is a bit mask of *zero* (not one) or more flags.

resolver.3

Stéphane Aulery

Add info about RES_INSECURE1 and RES_INSECURE2 option in debug mode

scanf.3

Joern Heissler

Improve description of %n specifier

setjmp.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

setlocale.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

setlogmask.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

sleep.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

strsignal.3

Zeng Linggang

ATTRIBUTES: Note function that isn't thread-safe

sysconf.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

undocumented.3

William Woodruff

Remove documented functions

tty_ioctl.4

Michael Kerrisk [Denis Du]

Fix error in code example

proc.5

Michael Kerrisk [Cameron Norman, Vasiliy Kulikov]

Document /proc mount options

Document the 'hidepid' and 'gid' mount options that were added in Linux 3.3. See https://bugzilla.kernel.org/show_bug.cgi?id=90641

Based on text by Vasiliy Kulikov in

Documentation/filesystems/proc.txt.

Michael Kerrisk [Kirill A. Shutemov]

Improve description of /proc/PID/status

Guillem Jover

Document /proc/PID/exe behaviour on unlinked pathnames

Michael Kerrisk [Weijie Yang]

Document /proc/PID/status VmPMD

resolv.conf.5

Stéphane Aulery [Thomas Hood]

Document use-vc option added to glibc 2.14

Fix Ubuntu bug #1110781:

<https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/1110781>

Stéphane Aulery [Thomas Hood]

Document RES_SINGLKUPREOP

Fix Ubuntu bug #1110781:

<https://bugs.launchpad.net/ubuntu/+source/manpages/+bug/1110781>

tzfile.5

Sam Varshavchik

Add various details on version 2 format

aio.7

Michael Kerrisk

Add details and update URL for OLS 2003 paper on AIO

bootparam.7

Michael Kerrisk [Alain Kalker]

Update discussion of 'debug' option

See https://bugzilla.kernel.org/show_bug.cgi?id=97161

Michael Kerrisk

Summary of multiple changes: remove cruft from this page.

Much of the detail on hardware specifics in this page dates from the 20th century. (The last major update to this page was in man-pages-1.14!) It's hugely out of date now (many of these devices disappeared from the kernel years ago.) So, I've taken a large scythe to the page to remove anything that looks seriously dated. In the process, the page has shrunk to less than 50% of its previous size.

Michael Kerrisk

Remove "buff=" details

This seems to have gone away in Linux 2.2.

Michael Kerrisk

Remove crufty "Mouse drivers" options

Michael Kerrisk

Remove crufty "General non-device-specific boot arguments" options

Michael Kerrisk

Remove crufty "Hard disks" options

Michael Kerrisk

Remove crufty "mem=" details

Michael Kerrisk

Remove crufty details on IBM MCA bus devices

Michael Kerrisk

Remove 'swap=" details

This seems to have gone away in Linux 2.2,

Michael Kerrisk

Remove crufty floppy disk driver options

In the specific case of floppy drives: the drivers still exist, but it's been a while since most of saw these devices in the wild. So, just refer the reader to the kernel source file for details. (The detail in this man page was after all originally drawn from that file.)

Remove crufty "ISDN drivers" options

Michael Kerrisk

Remove crufty "line printer driver" options

Michael Kerrisk

Remove crufty "Serial port drivers" options

Michael Kerrisk

Remove crufty reference to CONFIG_BUGi386

That option disappeared in Linux 2.4.

Michael Kerrisk

Remove crufty text

"bootsetups array" dates from Linux 2.0.

Michael Kerrisk

Remove crufty "Video hardware" options

Michael Kerrisk

Remove crufty SCSI device driver options

fanotify.7

Michael Kerrisk [Heinrich Schuchardt]

Since Linux 3.19, `fallocate(2)` generates `FAN_MODIFY` events

inotify.7

Michael Kerrisk [Heinrich Schuchardt]

Since Linux 3.19, `fallocate(2)` generates `IN_MODIFY` events

ip.7

Michael Kerrisk

Explain how `IP_ADD_MEMBERSHIP` determines its argument type

Michael Kerrisk [Jiri Pirko, Magnus REFTEL]

Clarify details of the `IP_MULTICAST_IF` socket option

Michael Kerrisk [Advait Dixi]

Remove dubious text that says that `SO_PRIORITY` sets IP TOS

See https://bugzilla.kernel.org/show_bug.cgi?id=35852

Michael Kerrisk

Relocate misplaced text describing `ENOPROTOOPT` error

packet.7

Graham Shaw

Add `sll_protocol` to list of required fields for outbound packets

pthread.7

Michael Kerrisk [KOSAKI Motohiro]

Using thread IDs whose lifetime has expired gives undefined behavior

See https://bugzilla.kernel.org/show_bug.cgi?id=53061

raw.7

Michael Kerrisk [Tetsuo Handa]

For incoming datagrams, `sin_port` is set to zero

Michael Kerrisk

Mention `sendto()`, `recvfrom()`, and so on when discussing address format

This gives the reader a little context for the following discussion of `'sin_port'`.

Michael Kerrisk

Remove crufty reference to `<netinet/in.h>`

Michael Kerrisk

Replace reference to RFC 1700 with pointer to IANA protocol number list

signal.7

Michael Kerrisk [Steinar H. Gunderson]

Clarify that I/O operations on disks are not interrupted by signals

See https://bugzilla.kernel.org/show_bug.cgi?id=97721

unix.7

Michael Kerrisk [Christophe Lohr]

Remove mention of `UNIX_PATH_MAX`

This kernel constant is not exposed to user space.

Michael Kerrisk

Note the 108 bytes for sun_path is how things are done on Linux
And refer the reader to NOTES for discussion of portability.

xattr.7

Michael Kerrisk

Document EA limits for Btrfs

Michael Kerrisk

Document VFS-imposed limits on EAs

VFS imposes a 255-byte limit on EA names, and a 64kB limit on EA values.

Michael Kerrisk

The ext[234] block limitation applies to sum of all EAs

It is not a per-EA limit.

Michael Kerrisk

Clarify permissions required to work with 'user' EAs

Michael Kerrisk

ext2 and ext3 no longer need mounting with 'user_xattr' for user EAs

Michael Kerrisk

Add various relevant pages to SEE ALSO

Michael Kerrisk

Add CONFORMING TO section

Michael Kerrisk

Modify headings to man-pages norms

Michael Kerrisk

Btrfs also supports extended attributes

Michael Kerrisk

File capabilities are implemented using *security* attributes

Not *system* attributes

Michael Kerrisk

Describe limit on EA values for JFS, XFS, and Reiserfs

Michael Kerrisk

Explicitly mention some of the xattr system calls in DESCRIPTION

Naming the system calls helps to orient the reader

nscd.8

Michael Kerrisk

Add mention of 'services' and 'netgroup' databases

This makes the page consistent with nscd.conf(5).

==== Changes in man-pages-4.01 =====

Released: 2015-07-23, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

bpf.2

Alexei Starovoitov, Michael Kerrisk [Daniel Borkmann]

New page documenting bpf(2)

__ppc_get_timebase.3

Tulio Magno Quites Machado Filho

New page documenting __ppc_get_timebase() and __ppc_get_timebase_freq()

Glibc 2.16 was released with a new function for the Power architecture that can read its Time Base Register.

Glibc 2.17 adds a function to read the frequency at which the Time Base Register of Power processors is updated.

queue.3

Michael Kerrisk [David Leppik, Doug Klima]

Reimport from latest FreeBSD page

Long ago, Doug Klima noted that many macros were not documented in the queue(3) page. Fix by reimporting from latest [1] FreeBSD man page.

[1] Revision 263142, Modified Fri Mar 14 03:07:51 2014 UTC

This also fixes https://sourceware.org/bugzilla/show_bug.cgi?id=1506

This time, I'll learn from past mistakes and not convert from 'mdoc' to 'man' macros.

Michael Kerrisk

Use subsections in DESCRIPTION

Michael Kerrisk

Remove SEE ALSO reference to nonexistent tree(3)

Michael Kerrisk

Use real hyphens in code samples

Michael Kerrisk

Comment out text for functions not in glibc

Michael Kerrisk

Replace HISTORY with CONFORMING TO

Newly documented interfaces in existing pages

rename.2

Michael Kerrisk [Miklos Szeredi]

Document RENAME_WHITEOUT

Heavily based on text by Miklos Szeredi.

New and changed links

__ppc_get_timebase_freq.3

Tulio Magno Quites Machado Filho

New link to new __ppc_get_timebase(3) page

LIST_EMPTY.3

LIST_FIRST.3

LIST_FOREACH.3

LIST_HEAD_INITIALIZER.3

LIST_INSERT_BEFORE.3

LIST_NEXT.3

SLIST_EMPTY.3

SLIST_ENTRY.3

SLIST_FIRST.3

SLIST_FOREACH.3

SLIST_HEAD.3

SLIST_HEAD_INITIALIZER.3

SLIST_INIT.3

SLIST_INSERT_AFTER.3

SLIST_INSERT_HEAD.3

SLIST_NEXT.3

SLIST_REMOVE.3

SLIST_REMOVE_HEAD.3

STAILQ_CONCAT.3

STAILQ_EMPTY.3

STAILQ_ENTRY.3

STAILQ_FIRST.3

STAILQ_FOREACH.3

STAILQ_HEAD.3

STAILQ_HEAD_INITIALIZER.3

STAILQ_INIT.3

STAILQ_INSERT_AFTER.3

STAILQ_INSERT_HEAD.3

STAILQ_INSERT_TAIL.3

STAILQ_NEXT.3

STAILQ_REMOVE.3

STAILQ_REMOVE_HEAD.3

TAILQ_CONCAT.3

TAILQ_EMPTY.3
TAILQ_FIRST.3
TAILQ_FOREACH.3
TAILQ_FOREACH_REVERSE.3
TAILQ_HEAD_INITIALIZER.3
TAILQ_INSERT_BEFORE.3
TAILQ_LAST.3
TAILQ_NEXT.3
TAILQ_PREV.3
TAILQ_SWAP.3

Michael Kerrisk

New links to queue.3

Global changes

Various pages

Michael Kerrisk [Andries E. Brouwer]

Remove "ABI" from "C library/kernel ABI differences" subheadings

The "ABI" doesn't really convey anything significant in the title. These subsections are about describing differences between the kernel and (g)libc interfaces.

Changes to individual pages

intro.1

Michael Kerrisk [Andries E. Brouwer]

Drop intro paragraph on '\$?' shell variable

As Andries notes, this piece of text is rather out of place in a page that was intended to provide a tutorial introduction for beginners logging in on a Linux system.

locale.1

Marko Myllynen

A minor output format clarification

A minor clarification for the locale output format which was brought up at https://sourceware.org/bugzilla/show_bug.cgi?id=18516.

For reference, see

https://sourceware.org/bugzilla/show_bug.cgi?id=18516

<http://pubs.opengroup.org/onlinepubs/9699919799/utilities/locale.html>

Add CONFORMING TO section

capget.2

Julian Orth

Clarify that `hdrp->pid==0` is equivalent `gettid()` not `getpid()`

chroot.2

Jann Horn

`chroot()` is not intended for security; document attack

It is unfortunate that this discourages this use of `chroot(2)` without pointing out alternative solutions - for example, OpenSSH and `vsftpd` both still rely on `chroot(2)` for security.

Bind mounts should theoretically be usable as a replacement, but currently, they have a similar problem (CVE-2015-2925) that hasn't been fixed in ~6 months, so I'd rather not add it to the manpage as a solution before a fix lands.

clock_getres.2

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

eventfd.2

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

execve.2

Michael Kerrisk

Elaborate on `envp/argv` as NULL behavior

_exit.2

Michael Kerrisk

Open `stdio` frames are not flushed, temporary files are deleted

Many years ago, text was added to the page saying that it is implementation-dependent whether `stdio` streams are flushed and whether temporary are removed. In part, this change appears to be because POSIX.1-2001 added text related to this point.

However, that seems to have been an error in POSIX, and the text was subsequently removed for POSIX.1-2008. See

<https://collaboration.opengroup.org/austin/interps/documents/9984/AI-085.txt>

Austin Group Interpretation reference 1003.1-2001 #085

fallocate.2

Namjae Jeon [Michael Kerrisk]

Document `FALLOC_FL_INSERT_RANGE`

Michael Kerrisk

Since Linux 4.2, `ext4` supports `FALLOC_FL_INSERT_RANGE`

fcntl.2

Michael Kerrisk

OFD locks are proposed for inclusion in the next POSIX revision

getrlimit.2

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getrusage.2

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

gettid.2

Michael Kerrisk

Note that for a thread group leader, `gettid() == getpid()`

iopl.2

Michael Kerrisk

Remove some historical `libc5` and `glibc 1` details

These details are ancient, and long ago ceased to be relevant.

ioprio_set.2

Michael Kerrisk [Jens Axboe]

Document meaning of `ioprio==0`

mlock.2

Michael Kerrisk [Mehdi Aqadjani Memar]

Document another `ENOMEM` error case

`ENOMEM` can occur if locking/unlocking in the middle of a region would increase the number of VMAs beyond the system limit (64k).

mmap.2

Michal Hocko [Eric B Munson]

Clarify `MAP_POPULATE`

David Rientjes has noticed that `MAP_POPULATE` wording might promise much more than the kernel actually provides and intends to provide.

The primary usage of the flag is to pre-fault the range. There is no guarantee that no major faults will happen later on. The pages might have been reclaimed by the time the process tries to access them.

Michal Hocko [Eric B Munson]

Clarify `MAP_LOCKED` semantics

`MAP_LOCKED` had a subtly different semantic from `mmap(2)+mlock(2)` since it has been introduced.

`mlock(2)` fails if the memory range cannot get populated to guarantee that no future major faults will happen on the range.

`mmap(MAP_LOCKED)` on the other hand silently succeeds even if the range was populated only partially.

Fixing this subtle difference in the kernel is rather awkward

because the memory population happens after mm locks have been dropped and so the cleanup before returning failure (munlock) could operate on something else than the originally mapped area.

E.g. speculative userspace page fault handler catching SEGV and doing `mmap(fault_addr, MAP_FIXED|MAP_LOCKED)` might discard portion of a racing mmap and lead to lost data. Although it is not clear whether such a usage would be valid, mmap page doesn't explicitly describe requirements for threaded applications so we cannot exclude this possibility.

This patch makes the semantic of `MAP_LOCKED` explicit and suggests using `mmap + mlock` as the only way to guarantee no later major page faults.

Michael Kerrisk

ERRORS: point out that `ENOMEM` can occur even for `munmap()`

`mprotect.2`

Michael Kerrisk

Note `ENOMEM` error that can occur when we reach limit on maximum VMAs

`open.2`

`read.2`

`write.2`

Michael Kerrisk [Mike Hayward]

Clarify that `O_NONBLOCK` is a no-op for regular files and block devices

`perf_event_open.2`

Vince Weaver [Joerg Roedel]

`Exclude_host/exclude_guest` clarification

This patch relates to the `exclude_host` and `exclude_guest` bits added by the following commit:

```
exclude_host, exclude_guest; Linux 3.2
commit a240f76165e6255384d4bdb8139895fac7988799
Author: Joerg Roedel <joerg.roedel@amd.com>
Date: Wed Oct 5 14:01:16 2011 +0200
```

perf, core: Introduce attrs to count in either host or guest mode

The updated manpage text clarifies that the "exclude_host" and "exclude_guest" `perf_event_open()` attr bits only apply in the context of a KVM environment and are currently x86 only.

Vince Weaver

Document `PERF_SAMPLE_REGS_INTR`

This patch relates to the addition of `PERF_SAMPLE_REGS_INTR` support added in the following commit:

perf_sample_regs_intr; Linux 3.19
commit 60e2364e60e86e81bc6377f49779779e6120977f
Author: Stephane Eranian <eranian@google.com>

perf: Add ability to sample machine state on interrupt

The primary difference between PERF_SAMPLE_REGS_INTR and the existing PERF_SAMPLE_REGS_USER is that the new support will return kernel register values. Also if precise_ip is set higher than 0 then the PEBS register state will be returned rather than the saved interrupt state.

This patch incorporates feedback from Stephane Eranian and Andi Kleen.

prctl.2

seccomp.2

Michael Kerrisk

Clarify that SECCOMP_SET_MODE_STRICT disallows exit_group(2)

These days, glibc implements _exit() as a wrapper around exit_group(2). (When seccomp was originally introduced, this was not the case.) Give the reader a clue that, despite what glibc is doing, what SECCOMP_SET_MODE_STRICT permits is the true _exit(2) system call, and not exit_group(2).

pread.2

read.2

readv.2

sendfile.2

write.2

Michael Kerrisk

Clarify that Linux limits transfers to a maximum of 0x7ffff000 bytes

See <https://bugs.debian.org/629994> and
<https://bugs.debian.org/630029>.

pread.2

Michael Kerrisk

Rewrite RETURN VALUE section

(Also drop the text on pwrite() returning zero; that seems bogus.)

ptrace.2

Michael Kerrisk [Vegard Nossum]

PTRACE_O_TRACEEXIT clarification

readv.2

Michael Kerrisk

Remove BUGS heading

The text on mixing I/O syscalls and stdio is a general point

of behavior. It's not a bug as such.

recv.2

send.2

Michael Kerrisk

Explain some subtleties of MSG_DONTWAIT versus O_NONBLOCK

rename.2

Michael Kerrisk

Michael Kerrisk

Note that RENAME_NOREPLACE can't be employed with RENAME_EXCHANGE

sched_setaffinity.2

Michael Kerrisk

Add an example program

Michael Kerrisk [Florian Weimer]

Explain how to deal with 1024-CPU limitation of glibc's cpu_set_t type

Michael Kerrisk

Mention the use of the 'isolcpus' kernel boot option

sched_setattr.2

Julian Orth

Remove a const attribute

The attr argument of sched_setattr was documented as const but the kernel will modify the size field of this struct if it contains an invalid value. See the documentation of the size field for details.

seccomp.2

Michael Kerrisk

SEE ALSO: add bpf(2)

send.2

Michael Kerrisk

Expand on subtleties of MSG_NOSIGNAL versus ignoring SIGPIPE

sigaltstack.2

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

socket.2

Stephan Mueller

Update documentation reference for AF_ALG

truncate.2

Michael Kerrisk

ERRORS: ftruncate() can fail if the file descriptor is not writable

utimensat.2

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

After research, We think utimensat() and futimens() are thread-safe.

But, there are not markings of utimensat() and futimens() in glibc document.

clearenv.3

Zeng Linggang

ATTRIBUTES: Note function that is not thread-safe

dl_iterate_phdr.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

error.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

fexecve.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

fpurge.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

fread.3

Andries E. Brouwer

Clarify terminology

In the "RETURN VALUE" section the word *item* is in italics as if it were one of the function parameters. But the word "item" occurs here for the first time, earlier the text uses "element". [Patch improves this.]

fts.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

getaddrinfo.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getaddrinfo_a.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getauxval.3

Michael Kerrisk

File capabilities also trigger AT_SECURE

Michael Kerrisk

(Briefly) document AT_HWCAP2

getgrent_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

gethostbyname.3

Michael Kerrisk [Laszlo Ersek]

Remove mention of IPv6 addresses, which are not supported

As reported by Laszlo Ersek:

gethostbyname(3) fails to resolve the IPv6 address "::1",
but the manual page says: "If name is an IPv4 or IPv6 address,
no lookup is performed and gethostbyname() simply copies name
into the h_name field [...]".

Debian bug report:

<http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=455762>

glibc bug report:

http://sourceware.org/bugzilla/show_bug.cgi?id=5479

SUSv3 link for gethostbyname(3):

<http://www.opengroup.org/onlinepubs/000095399/functions/gethostbyname.html>

It seems that the glibc behavior is conformant, and the manual
page is in error.

getifaddrs.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getnameinfo.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

getnetent_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getprotoent.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

getprotoent_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getpw.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

getpwent_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

getrpcnt.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

getrpcnt_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

getrpcport.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

getservent.3

Zeng Linggang

ATTRIBUTES: Note functions that aren't thread-safe

getservent_r.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

gsignal.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

key_setsecret.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

malloc_get_state.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

malloc_info.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

malloc_stats.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

malloc_trim.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

MB_LEN_MAX.3

Michael Kerrisk

Clarify meaning of MB_LEN_MAX

Michael Kerrisk [Pádraig Brady]

MB_LEN_MAX is 16 in modern glibc versions

memcpy.3

Michael Kerrisk

NOTES: describe the glibc 2.13 changes that revealed buggy applications

Adding a note on this point seems worthwhile as a way of emphasizing the point that the buffers must not overlap.

mq_notify.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

perror.3

Michael Kerrisk

Some wording improvements and clarifications

profil.3

Zeng Linggang

ATTRIBUTES: Note function that is not thread-safe

psignal.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

pthread_attr_init.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Use "%zd" for printing size_t in example code

pthread_attr_setaffinity_np.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

pthread_cancel.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

pthread_cleanup_push.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

pthread_create.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

pthread_detach.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

pthread_getattr_np.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

pthread_join.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

pthread_setname_np.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

pthread_tryjoin_np.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

putgrent.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

rcmd.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

resolver.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

rpc.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

rpmatch.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

sem_close.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

sem_open.3

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

setaliasent.3

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

setlocale.3

Marko Myllynen

Update CONFORMING TO

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/setlocale.html>

setlocale.3

Marko Myllynen

Tweak C/POSIX locale portability description

As discussed earlier, the current description might be a little bit too stringent, let's avoid the issue by describing the portability aspect on a slightly higher level.

References:

http://pubs.opengroup.org/onlinepubs/9699919799/basedefs/V1_chap06.html

http://pubs.opengroup.org/onlinepubs/9699919799/basedefs/V1_chap07.html

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/setlocale.html>

shm_open.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

strfmon.3

Marko Myllynen

Document strfmon_l(3)

Describe strfmon_l(3).

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/strfmon.html>

Marko Myllynen

Fix CONFORMING TO

AFAICS strfmon(3) is now defined in POSIX and the glibc implementation is as specified there.

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/strfmon.html>

Marko Myllynen

Rewrite the example

I think the example is more accurate when we use the exact locale names and also the Euro sign where appropriate.

xcrypt.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

xdr.3

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

console_codes.4

Scot Doyle [Pavel Machek, Michael Kerrisk]

Add CSI sequence for cursor blink interval

Add a Console Private CSI sequence to specify the current console's cursor blink interval. The interval is specified as a number of milliseconds until the next cursor display state toggle, from 50 to 65535.

null.4

Michael Kerrisk

Note that reads from /dev/zero are interruptible since Linux 2.6.31

core.5

Michael Kerrisk

Mention 'coredump_filter' boot option

host.conf.5

Michael Kerrisk

Wording fix: s/resolv+/the resolver library/

The term "resolv+" seems to be historical cruft.

hosts.equiv.5

Carlos O'Donell

Fix format, clarify IdM needs, and provide examples.

In some recent work with a Red Hat customer I had the opportunity to discuss the fine nuances of the ruserok() function and related API which are used to implement rlogin and rsh.

It came to my attention after working with QE on some automated internal testing that there were no good examples in the hosts.equiv manual page showing how the format was supposed to work for this file and for ~/.rhosts, worse the "format" line showed that there should be spaces between arguments when that would clearly lead to incorrect behaviour. In addition some things that the format allows you to write are just wrong like "-host -user" which makes no sense since the host is already rejected, and should be written as "host -user" instead. I added notes in the example to make it

clear that "-host -user" is invalid.

I fixed three things:

(a) The format line.

- Either +, or [-]hostname, or +@netgrp or -@netgrp.
- Either +, or [-]username, or +@netgrp or -@netgrp.
- You must specify something in the hostname portion so remove optional brackets.

(b) Clarify language around credentials

- If the host is not trusted you must provide credentials to the login system and that could be anything really and it depends on your configuration e.g. PAM or whatever IdM you have.

(c) Provide real-world examples

- Provide several real world examples and some corner case examples for how you would write something. Hopefully others can add examples as they see fit.

Michael Kerrisk [Carlos O'Donnell, Arjun Shankar]

Improve explanation in EXAMPLE

locale.5

Marko Myllynen

Document map to_inpunct, map to_outpunct

See e.g. fa_IR for reference.

Marko Myllynen

Document class in LC_CTYPE

See e.g. the locale zh_CN and

<http://en.cppreference.com/w/cpp/string/wide/towctrans>

<http://en.cppreference.com/w/cpp/string/wide/wctrans>

Marko Myllynen

Add iconv(1) reference

Marko Myllynen

Document character transliteration

See e.g. da_DK for reference.

(Not sure should we actually provide an example here?)

Marko Myllynen

Document era keywords

This patch completes the LC_TIME section - since these era keywords are so tightly coupled, I'm providing them as a single patch.

Based on

http://pubs.opengroup.org/onlinepubs/009695399/basedefs/xbd_chap07.html

<http://www.open-std.org/jtc1/SC22/WG20/docs/n972-14652ft.pdf>

Marko Myllynen

Document default_missing

Marko Myllynen

Document outdigit and alt_digits

See e.g. fa_IR for reference.

Marko Myllynen

Refer to locale(7) more prominently

It's probably a good idea to refer to locale(7) so that a reader can check what a category is about before describing them in detail.

Marko Myllynen

Document charclass and charconv

See e.g. the locales ja_JP and ko_KR and

<http://en.cppreference.com/w/cpp/string/wide/towctrans>

<http://en.cppreference.com/w/cpp/string/wide/wctrans>

Marko Myllynen

Copy is not exclusive in LC_CTYPE and LC_COLLATE

See e.g. da_DK for reference.

Marko Myllynen

Remove the FIXME for timezone

The timezone of LC_TIME is not in POSIX, only 6 (out of ~300) glibc locales define it, the glibc code comment below from [glibc.git/programs/ld-time.c](https://github.com/glibc/glibc/blob/master/programs/ld-time.c) seems to suggest it's not a good idea, and there's been a proposal in upstream [1] to remove the existing timezone definitions from glibc locales so I think it's actually better to leave this one undocumented:

```
/* XXX We don't perform any tests on the timezone value since this is  
   simply useless, stupid $&$!@... */
```

1) <https://sourceware.org/ml/libc-alpha/2015-06/msg00098.html>

Move the remaining LC_COLLATE FIXMEs together while at it.

Marko Myllynen

Fix country_isbn format

Both plain numbers and Unicode code points are used in glibc locales but checking the code reveals that country_isbn is handled like the rest of its category expect for country_num which was clarified earlier.

Marko Myllynen

Sort according to the standard

Sort the options so that those defined in POSIX are listed first, then followed by those defined in ISO/IEC TR 14652 in the order of common convention in many widely used glibc locales.

Actual descriptions are unchanged.

http://pubs.opengroup.org/onlinepubs/9699919799/basedefs/V1_chap07.html

Marko Myllynen

Refer to `strftime(3)` where appropriate

The relationship between the locale time format syntax and `strftime()` cannot be considered as obvious.

Marko Myllynen

Document map "totitle"

See e.g. `locales/i18n` for reference.

Michael Kerrisk [Marko Myllynen]

Remove BUGS section saying man page is not complete

To some degree, this is true of many pages. And anyway, this page is much better after recent work by Marko.

proc.5

Michael Kerrisk

List `/proc/vmstat` fields

Michael Kerrisk

Tweak `/proc/vmstat` text

Michael Kerrisk

Add `/proc/crypto` entry with a pointer to further information

Michael Kerrisk [Kees Cook]

Document `/proc/sys/kernel/sysctl_writes_strict`

Based on text in `Documentation/sysctl/kernel.txt`.

Michael Kerrisk

Move misordered `/proc/[pid]/timers` entry

Michael Kerrisk

Refer to `bpf(2)` for explanation of `/proc/sys/net/core/bpf_jit_enable`

repertoiremap.5

Marko Myllynen

Symbolic names AKA mnemonics

A long time ago in `glibc`, repertoire maps were used (but they were removed already in 2000), those mapping files were named as mnemonics, so "mnemonic" is a term that would almost certainly come up if somebody studies `glibc` side (perhaps even the related standards like ISO 9945 [which I don't have access to]) so I thought it's worth to mention to term in the man page to make sure we're talking about the same thing, otherwise someone might wonder is that something different or not.

IOW, symbolic names and mnemonics are often used interchangeably, let's mention the other often used term in the page, too.

capabilities.7

Michael Kerrisk

`CAP_SYS_ADMIN` allows calling `bpf(2)`

locale.7

Marko Myllynen

LC_CTYPE determines transliteration rules on glibc systems

packet.7

[Cortland Setlow]

Fix description of binding a packet socket to an interface

pty.7

NeilBrown [Peter Hurley]

Clarify asynchronous nature of PTY I/O

A PTY is not like a pipe - there may be delayed between data being written at one end and it being available at the other.

This became particularly apparent after

commit f95499c3030f

("n_tty: Don't wait for buffer work in read() loop")

in Linux 3.12

See also the mail thread at <https://lkml.org/lkml/2015/5/1/35>

Date Mon, 04 May 2015 12:32:04 -0400

From Peter Hurley <>

Subject Re: [PATCH bisected regression] input_available_p()
sometimes says 'no' when it should say 'yes'

rtld-audit.7

Ben Woodard

Use correct printf() specifier for pointer types

In the example code you used %x rather than %p in the example code for an audit library. The problem is that it truncates the pointers on 64b platforms. So you get something like:

```
la_symbind64(): symname = strchr sym->st_value = 0x7f4b8a3f8960  
ndx = 222 flags = 0x0 refcook = 8b53e5c8 defcook = 8b537e30
```

rather than:

```
la_symbind64(): symname = fclose sym->st_value = 0x7fa452dd49b0  
ndx = 1135 flags = 0x0 refcook = 0x7fa453f395c8 defcook = 0x7fa453f32e30
```

This has bitten me a handful of times when playing around with audit test libraries to investigate its behavior.

sched.7

Michael Kerrisk

Remove ancient, wildly optimistic prediction about future of RT patches

It seems the patches were not merged by 2.6.30...

socket.7

Michael Kerrisk

SEE ALSO: add bpf(2)

vdso.7

Nathan Lynch [Mike Frysinger]

Update for ARM

The 32-bit ARM architecture in Linux has gained a vDSO as of the 4.1 release. (I was the primary author.)

Document the symbols exported by the ARM VDSO.

Accepted kernel submission:

<http://lists.infradead.org/pipermail/linux-arm-kernel/2015-March/332573.html>

==== Changes in man-pages-4.02 =====

Released: 2015-08-08, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

dladdr.3

Michael Kerrisk

New page documenting dladdr() and dladdr1()

Relocate/rewrite dladdr() text formerly contained in dlopen(3).

Add documentation of dladdr1().

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

dlerror.3

Michael Kerrisk

Migrate dlerror(3) to new separate man page

Michael Kerrisk

Note that the returned message may be in a statically allocated buffer

Michael Kerrisk

Note that the returned string does not include a trailing newline

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

dlinfo.3

Michael Kerrisk

New page describing dlinfo(3)

Zeng Linggang

ATTRIBUTES: Note function that is thread-safe

dlopen.3

Michael Kerrisk

This page was substantially rewritten and enhanced. Notably:

- * the dladdr(), dlsym, dlvsym(), and dlerror() content were moved to separate new pages;
- * documentation for dlmopen was added;
- * and other changes as noted below.

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

Michael Kerrisk

Move atexit() discussion under "Initialization and Finalization"

Michael Kerrisk

Move discussion of _init() and _fini() to NOTES

Michael Kerrisk

Rework the discussion of initialization and finalization functions

Deemphasize the obsolete _init/_fini and give more prominence to gcc constructors/destructors.

Michael Kerrisk

dlclose() will unload the object when all references have been released

Michael Kerrisk

EXAMPLE: Remove mention of "-rdynamic"

That option isn't needed for compiling and running this program.

Michael Kerrisk

Remove reference to ld.so info page

The command "info ld.so" simply shows the man page...

Michael Kerrisk

Add VERSIONS section

Michael Kerrisk

Reorganize conformance information for 'flags'

dlsym.3

Michael Kerrisk

Move dlsym() and dlvsym() content to new separate page

Zeng Linggang

ATTRIBUTES: Note functions that are thread-safe

Newly documented interfaces in existing pages

dlopen.3

Michael Kerrisk, Carlos O'Donnell

Document dlmopen(3)

nl_langinfo.3

Sam Varshavchik, Michael Kerrisk

Add documentation for nl_langinfo_l(3)

__ppc_set_ppr_med.3

Gabriel F. T. Gomes

Document PPC functions providing access to PPR

GNU C Library 2.18 adds functions (__ppc_set_ppr_low(3),
__ppc_set_ppr_med(3), __ppc_set_ppr_med_low(3)) that provide
access to the Program Priority Register (PPR).

__ppc_yield.3

Gabriel F. T. Gomes

Document PPC performance-hint functions

GNU C Library 2.18 adds functions __ppc_yield(3), __ppc_mdoio(3),
and __ppc_mdooom(3) that can be used provide a hint that
performance could be improved if shared resources are released
for use by other processors.

New and changed links

dladdr1.3

Michael Kerrisk

New link to (new) dladdr(3) page

dlmopen.3

Michael Kerrisk

New link to dlopen.3

dlvsym.3

Michael Kerrisk

Adjust link to point to new self-contained dlvsym(3) page

nl_langinfo.1.3

Michael Kerrisk

New link to nl_langinfo.3

__ppc_mdoio.3

Gabriel F. T. Gomes

New link to __ppc_yield.3

__ppc_mdoom.3

Gabriel F. T. Gomes

New link to __ppc_yield.3

__ppc_set_ppr_low.3

Gabriel F. T. Gomes

New link to __ppc_set_ppr_med.3

__ppc_set_ppr_med_low.3

Gabriel F. T. Gomes

New link to __ppc_set_ppr_med.3

Global changes

Very many pages

Michael Kerrisk

Update CONFORMING TO section to reflect POSIX.1-2001 and POSIX.1-2008 details. (By now, I believe all pages should be up to date with respect to appropriately mentioning POSIX.1-2001 and POSIX.1-2008.)

ldd.1

sprof.1

execve.2

dlopen.3

ld.so.8

Michael Kerrisk

Prefer "shared object" over "shared library"

The man pages variously use "shared library" or "shared object".
Try to more consistently use one term ("shared object"), while
also pointing out on a few pages that the terms are synonymous.

Changes to individual pages

accept.2

Michael Kerrisk

Add mention of POSIX.1-2008 regarding EAGAIN vs EWOULDBLOCK

bpf.2

Daniel Borkmann

Various updates/follow-ups to address some fixmes

A couple of follow-ups to the bpf(2) man-page, besides others:

- * Description of map data types
- * Explanation on eBPF tail calls and program arrays
- * Paragraph on tc holding ref of the eBPF program in the kernel
- * Updated ASCII image with tc ingress and egress invocations
- * __sync_fetch_and_add() and example usage mentioned on arrays
- * minor reword on the licensing and other minor fixups

execve.2

Michael Kerrisk

Reword text on POSIX and #!

io_getevents.2

Michael Kerrisk

Note return value on interruption by a signal handler

Michael Kerrisk

Clarify details of return value for timeout-expired case

Michael Kerrisk

Clarify and extend discussion of 'timeout' argument

mmap.2

Michael Kerrisk

Note that 'length' need not be a page-size multiple for munmap()

Michael Kerrisk [David Rientjes, David Rientjes, Mike Kravetz]

Describe mmap()/munmap() argument requirements for huge-page mappings

Michael Kerrisk

Move discussion of timestamps to NOTES

A straight move; no changes to the content.

This content is better placed in NOTES.

seccomp.2

Michael Kerrisk

SEE ALSO: mention libseccomp pages

SEE ALSO: add scmp_sys_resolver(1)

sigaction.2

Michael Kerrisk

Correct the list of flags that were added in POSIX.1-2001

socketpair.2

Michael Kerrisk [Goswin von Brederlow]

Clarify use of SOCK_* flags in 'type' argument

See <http://bugs.debian.org/794217>

atexit.3

Michael Kerrisk

SEE ALSO: add dlopen(3)

clock_getcpuclockid.3

Michael Kerrisk

Improve wording of EPERM error

It's imprecise to say that this is an "optional" error
in POSIX.1.

dl_iterate_phdr.3

Michael Kerrisk

Note that 'size' allows callback() to discover structure extensions

Michael Kerrisk

SEE ALSO: add dladdr(3)

Michael Kerrisk

CONFORMING TO: note that this function appears on some other systems

fseeko.3

Michael Kerrisk

Remove crufty NOTES section

This ancient System V detail is unneeded.

getutent.3

Michael Kerrisk

Mention POSIX.1-2008 for the "utmpx" functions

iconv_close.3

iconv_open.3

Michael Kerrisk

CONFORMING TO: change "UNIX98" to "SUSv2"

malloc.3

Michael Kerrisk

Change "UNIX 98" to "SUSv2"

mktemp.3

Gleb Fotengauer-Malinovskiy

Reference mkdtemp(3) in addition to mkstemp(3)

Mention mkdtemp(3) as another secure alternative to mktemp(3).

See also https://sourceware.org/bugzilla/show_bug.cgi?id=2898.

mq_receive.3

mq_send.3

Michael Kerrisk

Clarify discussion of 'timeout'

In particular, remove the word 'ceiling', which falsely suggests that the call might return prematurely.

nl_langinfo.3

Michael Kerrisk

Explicitly describe the return value on success

Michael Kerrisk

POSIX specifies that the caller may not modify the returned string

Michael Kerrisk

Enhance RETURN VALUE description

Note some further cases where returned string may be invalidated or overwritten.

perror.3

Michael Kerrisk

Reformat CONFORMING to information

Michael Kerrisk

Note that 'sys_errlist' and 'sys_nerr' are not in POSIX.1

posix_openpt.3

Michael Kerrisk

Reword text regarding systems that don't have posix_openpt()

printf.3

Michael Kerrisk

CONFORMING TO: update details for dprintf() and vdprintf()

setlogmask.3

Michael Kerrisk

Remove useless statement in CONFORMING TO

Saying that the description in POSIX.1-2001 is flawed, without saying what the flaw is, is not helpful.

(And no, I don't know what the flaw is.)

shm_open.3

Michael Kerrisk

Add POSIX.1-2008 details regarding group ID of new shared memory object

strfmon.3

Michael Kerrisk

Fix erroneous CONFORMING to
strfmon() is in POSIX.1.

fanotify.7

Heinrich Schuchardt

Clarify effects of file moves
If files or directories are moved to other mounts, the inode is
deleted. Fanotify marks are lost.

mq_overview.7

Michael Kerrisk

Remove unneeded CONFORMING TO section

nptl.7

Michael Kerrisk [Nicholas Miell]

Note that i386 and x86-64 binaries can't share mutexes

sched.7

Nikola Forró

Fix descriptions of sched_get_priority_max() / sched_get_priority_min()

sem_overview.7

Michael Kerrisk

Remove unneeded CONFORMING TO section

shm_overview.7

Michael Kerrisk

Remove unneeded CONFORMING TO section

sigevent.7

Michael Kerrisk

Remove unneeded CONFORMING TO section

symlink.7

Michael Kerrisk

Update with POSIX.1-2008 details for link(2)

ld.so.8

Michael Kerrisk [Jonathan David Amery]

Items in LD_LIBRARY_PATH can also be delimited by semicolons

See <http://bugs.debian.org/794559>.

==== Changes in man-pages-4.03 =====

Released: 2015-12-05, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

perf_event_open.2

Vince Weaver

4.1 adds AUX sample support

Vince Weaver

4.1 data_offset and data_size fields

Vince Weaver [Alexander Shishkin]

Document aux_{head,tail,offset,size} support

Vince Weaver

4.0 update rdpmc documentation

Vince Weaver

4.1 adds PERF_RECORD_ITRACE_START

Vince Weaver

Document 4.1 clockid support

Vince Weaver [Steven Rostedt, Masami Hiramatsu]

4.1 PERF_EVENT_IOC_SET_BPF support

Vince Weaver

4.1 adds AUX_FLAG_OVERWRITE support

Vince Weaver

4.1 PERF_SAMPLE_BRANCH_CALL_STACK

Vince Weaver

4.1 adds aux_watermark

Vince Weaver

Add possibility of EBUSY error

prctl.2

Andy Lutomirski [Kees Cook, Serge Hallyn]

Document operations for ambient capabilities

Michael Kerrisk

Rework PR_CAP_AMBIENT text

Note that arg4 and arg5 must be zero for CAP_AMBIENT

RETURN VALUE: Add PR_CAP_AMBIENT + PR_CAP_AMBIENT_IS_SET case

ERRORS: document PR_CAP_AMBIENT error cases

__ppc_set_ppr_med.3

Gabriel F. T. Gomes

Document PPC functions providing access to PPR

GNU C Library commit 1747fcda4902a3b46183d93fb16ed9b436b2608b

extends the priorities that can be set to the Program Priority

Register (PPR), with the functions: __ppc_set_ppr_very_low(3)

and __ppc_set_ppr_med_high(3).

capabilities.7

Andy Lutomirski [Kees Cook, Serge Hallyn]

Document ambient capabilities

Michael Kerrisk

Various additions and reworkings for ambient capability text

New and changed links

__ppc_set_ppr_med_high.3

Gabriel F. T. Gomes

New link to __ppc_set_ppr_med.3

__ppc_set_ppr_very_low.3

Gabriel F. T. Gomes

New link to __ppc_set_ppr_med.3

Changes to individual pages

mremap.2

Eric B Munson [Michal Hocko]

Add note about mremap() with locked areas

When mremap() is used to move or expand a mapping that is locked with mlock() or equivalent it will attempt to populate the new area. However, like mmap(MAP_LOCKED), mremap() will not fail if the area cannot be populated. Also like mmap(MAP_LOCKED) this might come as a surprise to users and should be noted.

open.2

Michael Kerrisk [David Drysdale]

Remove accidental mention of O_TTY_INIT

An earlier edit mentioned O_TTY_INIT as a file creation flag.

That's true, according POSIX, but Linux does not implement this flag, so remove mention of it.

pipe.2

Michael Kerrisk

SEE ALSO: add splice(2)

prctl.2

Michael Kerrisk

Reorder options alphabetically

Employ a pseudo-alphabetical order, ordering options after removal of any "PR_", "PR_SET_", or "PR_GET" prefix.

Michael Kerrisk

Fix alphabetical misplacements in ERRORS

ptrace.2

Tycho Andersen

Document PTRACE_O_SUSPEND_SECCOMP flag

Michael Kerrisk

Document /proc/sys/kernel/yama/ptrace_scope

Michael Kerrisk

Note that PTRACE_ATTACH cannot be applied to nondumpable processes

Michael Kerrisk

SEE ALSO: add prctl(2)

reboot.2

Casper Ti. Vector

1-argument reboot() is also provided by alternative libc

seccomp.2

Michael Kerrisk

Describe use of 'instruction_pointer' data field

Michael Kerrisk [Kees Cook]

Note why all filters in a set are executed even after SECCOMP_RET_KILL

signalfd.2

Michael Kerrisk

Describe semantics with respect to SCM_RIGHTS

syscalls.2

Michael Kerrisk

Add mlock(2)

Michael Kerrisk

Add userfaultfd()

daemon.3

Michael Kerrisk [Johannes Stüttgen]

Note that daemon() is buggy with respect to controlling tty acquisition

dirfd.3

Jonathan Wakely

Remove outdated NOTES

As stated in the SYNOPSIS, since glibc 2.10 this function is also declared by the relevant X/Open and POSIX macros.

dlopen.3

Michael Kerrisk

Make it more explicit that LD_BIND_NOW overrides RTLD_LAZY

Michael Kerrisk [Florian Weimer]

Correct the pathname used in EXAMPLE

Quoting Florian:

This does not work because libm.so can be a linker script:

```
handle = dlopen("libm.so", RTLD_LAZY);
```

The proper way to do this is to include `<gnu/lib-names.h>` and use `LIBM_SO`.

See https://bugzilla.kernel.org/show_bug.cgi?id=108821

Michael Kerrisk

Include a shell session showing build/run in EXAMPLE

Michael Kerrisk

Change arguments to `main()` to "void" in EXAMPLE

`fgetgrent.3`

Zeng Linggang

ATTRIBUTES: Note function that is not thread-safe

`fgetpwent.3`

Zeng Linggang

ATTRIBUTES: Note function that is not thread-safe

`getauxval.3`

Michael Kerrisk

Add some details for `AT_SECURE`

`getspnam.3`

Zeng Linggang

ATTRIBUTES: Note functions that are/aren't thread-safe

`mallinfo.3`

Zeng Linggang

ATTRIBUTES: Note function that is not thread-safe

`mallopt.3`

Carlos O'Donell

Document `M_ARENA_TEST` and `M_ARENA_MAX`

`posix_fallocate.3`

Michael Kerrisk

Clarify text relating to MT-safety

Carlos O'Donell

Mention `glibc` emulation caveats

`termios.3`

Olivier TARTROU

Add missing details on behaviour of `PARMRK`

For a serial terminal, with a specific configuration, input bytes

with value 0377 are passed to the program as two bytes, 0377 0377.

tty_ioctl.4

Michael Kerrisk [Peter Hurley]

Note that TIOCTTYGSTRUCT went away in Linux 2.5.67

core.5

Ross Zwisler

Add info about DAX coredump filtering flags

Kernel 4.4 added two new core dump filtering flags,
MMF_DUMP_DAX_PRIVATE and MMF_DUMP_DAX_SHARED.

These flags allow us to explicitly filter DAX mappings.
This is desirable because DAX mappings, like hugetlb
mappings, have the potential to be very large.

nsswitch.conf.5

Nikola Forró

Add list of files being read when "files" service is used

This is not mentioned anywhere. Users can assume that the file
being read is something like /etc/\$DATABASE, but that's not
always the case. It's better to explicitly specify which
file is read for each respective database. The list of
files was acquired from glibc source code.

proc.5

Heinrich Schuchardt [Michael Kerrisk]

Add details for threads-max

Add detail information for threads-max.

The checks for minimum and maximum values exist since kernel 4.1.

<https://lkml.org/lkml/2015/3/15/96>

Heinrich Schuchardt

/proc/sys: Describe whitespace characters

Michael Kerrisk

Document 'CapAmb' in /proc/PID/status

Michael Kerrisk

Add reference to ptrace(2) for /proc/sys/kernel/yama/ptrace_scope

aio.7

Michael Kerrisk [Meikun Wang]

Add missing include file, <fcntl.h>, to example program

mq_overview.7

Michael Kerrisk [Arto Bendiken]

Document QSIZE bug that appeared in 3.5 and was fixed in 4.2

path_resolution.7

Michael Kerrisk

Clarify recursive resolution of symlinks and note limits

pipe.7

Michael Kerrisk

SEE ALSO: add splice(2)

rtld-audit.7

Namhyung Kim

Fix (typo) error in la_pltenter() description

s/la_pltenter()/la_pltexit()/

la_pltenter() is called regardless of the value of framesizep but la_pltexit() is called only if la_pltenter() returns with non-zero framesizep set. I spent long time to figure out why la_pltexit() is not called at all.

signal.7

Michael Kerrisk [Michael Hocko]

Note async-signal-safe functions added by POSIX.1-2008 TC1

tcp.7

Daniel Borkmann [Michael Kerrisk]

Improve paragraphs on tcp_ecn and add tcp_ecn_fallback bullet

Improve description of tcp_ecn, fix the RFC number and it's not a boolean anymore since long time, and add a description for tcp_ecn_fallback.

See also kernel doc under Documentation/networking/ip-sysctl.txt on tcp_ecn and tcp_ecn_fallback.

ld.so.8

Michael Kerrisk

LD_POINTER_GUARD has been removed in glibc 2.23

Michael Kerrisk

Describe secure-execution mode

Michael Kerrisk [Maria Guseva]

Replace mentions of set-UID/set-GID programs with secure-execution mode

Inspired by a patch from Maria Guseva.

Maria Guseva [Silvan Jegen]

LD_DEBUG is effective in secure-execution mode if /etc/suid-debug exists

==== Changes in man-pages-4.04 =====

Released: 2015-12-29, Munich

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

futex.2

Michael Kerrisk, Thomas Gleixner, Torvald Riegel [Davidlohr Bueso, Heinrich Schuchardt, Darren Hart, Rusty Russell, Pavel Machek, Rich Felker]

Rewrite and massively expand page

membarrier.2

Mathieu Desnoyers [Michael Kerrisk]

New page documenting membarrier() system call

Newly documented interfaces in existing pages

mlock.2

Eric B Munson [Michal Hocko, Vlastimil Babka, Michael Kerrisk]

Document mlock2(2) and MCL_ONFAULT

New and changed links

mlock2.2

Eric B Munson

New link to mlock.2

Global changes

Various pages

Michael Kerrisk

ERRORS: standardize text for EMFILE error

Various pages

Michael Kerrisk

ERRORS: standardize error text for ENOTSOCK error

Various pages

Michael Kerrisk

ERRORS: standardize text for ENFILE error

Changes to individual pages

clock_getres.2

Michael Kerrisk

SEE ALSO: add vdso(7)

epoll_create.2

Michael Kerrisk

ERRORS: add another EMFILE error case

fanotify_init.2

Michael Kerrisk

ERRORS: add an EMFILE error case

fork.2

Michael Kerrisk

Child of MT-process is restricted to async-signal-safe functions

getcpu.2

Michael Kerrisk

SEE ALSO: add vdso(7)

getrlimit.2

Michael Kerrisk [Lennart Poettering]

The init of measurement for RLIMIT_RSS is bytes, not pages

get_robust_list.2

Michael Kerrisk

Reword EINVAL error text

gettimeofday.2

Carlos O'Donell

Expand on the historical meaning of tz_dsttime

Michael Kerrisk

SEE ALSO: add vdso(7)

inotify_init.2

Michael Kerrisk

ERRORS: add an EMFILE error case

personality.2

Dmitry V. Levin

Note kernel and glibc versions that introduced this system call

poll.2

Richard Voigt

timeout_ts is a pointer, so use -> not . for member access

Michael Kerrisk

Shorten name of timeout argument for ppoll()

The name is overly long, and does not hint at the fact that this argument is a pointer. Fix this by renaming:

s/timeout_ts/tmo_p/

sendfile.2

Laurent Georget

Document more ERRORS

sigreturn.2

Michael Kerrisk

SEE ALSO: add vdso(7)

socketcall.2

Michael Kerrisk

Since Linux 4.3, x86-32 provides direct system calls for the sockets API

time.2

Zack Weinberg

Explain why the glibc time() wrapper never sets 'errno'

Michael Kerrisk [H.J. Lu]

Where time() is provided by vDSO, an invalid address may give SIGSEGV

Michael Kerrisk [Paul Eggert]

Describe EOVERFLOW details

Michael Kerrisk

SEE ALSO: add vdso(7)

Michael Kerrisk

Rename 't' argument to 'tloc'

dlerror.3

Michael Kerrisk [Jonny Grant]

Clarify that the string returned by dlerror() is null terminated

dlopen.3

Michael Kerrisk

Include a shell session showing build/run in EXAMPLE

Michael Kerrisk

Change arguments to main() to "void" in EXAMPLE

drand48.3

Michael Kerrisk [Vincent Lefevre]

Correct descriptions of ranges returned by these functions

See <http://bugs.debian.org/803459>

errno.3

Michael Kerrisk

Note probable cause of ENFILE error

fnmatch.3

Pádraig Brady

Describe the FNM_EXTMATCH flag and pattern syntax

iconv.3

Andries E. Brouwer

NOTES: describe correct usage for flushing partially buffered input

random_r.3

Michael Kerrisk [Archie Cobbs]

Clarify need to use `initstate_r()`

tzset.3

Carlos O'Donell

Clarify "daylight" and remove erroneous note

random.4

Michael Kerrisk [Tom Gundersen]

Rework example scripts to assume 'poolsize' unit is bits, not bytes

Michael Kerrisk [Walter Harms]

Use modern command substitution syntax in shell session log

proc.5

Michael Kerrisk

Reaching `/proc/sys/fs/file-max` limit normally produces an ENFILE error

futex.7

Heinrich Schuchardt

SEE ALSO updates

Michael Kerrisk

Note some other locking primitives that are built with futexes

Heinrich Schuchardt

NPTL, avoid abbreviation

Michael Kerrisk

Note that a futex is 4 bytes on all platforms

vdso.7

Michael Kerrisk

Add note on `strace(1)` and vDSO

ld.so.8

H.J. Lu [Michael Kerrisk]

Document `LD_PREFER_MAP_32BIT_EXEC`

Michael Kerrisk

Clarify setting of `LD_BIND_NOT`

Michael Kerrisk

Clarify setting of `LD_DYNAMIC_WEAK`

Michael Kerrisk

Clarify setting of `LD_TRACE_PRELINKING`

Michael Kerrisk

Clarify some details for `LD_SHOW_AUXV`

Released: 2016-03-15, Christchurch

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

copy_file_range.2

Anna Schumaker [Darrick J. Wong, Christoph Hellwig, Michael Kerrisk]

New page documenting copy_file_range()

copy_file_range() is a new system call for copying ranges of data completely in the kernel. This gives filesystems an opportunity to implement some kind of "copy acceleration", such as reflinks or server-side-copy (in the case of NFS).

personality.2

Michael Kerrisk

This page has been greatly expanded, to add descriptions of personality domains.

fmemopen.3

Michael Kerrisk [Adhemerval Zanella]

Significant reworking of this page:

- * Rework discussion of the (obsolete) binary mode
- * Split open_memstream(3) description into a separate page.
- * Note various fmemopen() bugs that were fixed in glibc 2.22
- * Greatly expand description of 'mode' argument
- * Rework description of 'buf' and 'len' arguments
- * Expand discussion of "current position" for fmemopen() stream

ntp_gettime.3

Michael Kerrisk

New page describing ntp_gettime(3) and ntp_gettimex(3)

open_memstream.3

Michael Kerrisk

New page created by split of fmemopen(3).

At the same time, add and rework a few details in the text.

posix_spawn.3

Bill O. Gallmeister, Michael Kerrisk

New man page documenting posix_spawn(3) and posix_spawnnp(3)

readdir.3

Michael Kerrisk [Florian Weimer]

Split readdir_r() content into separate page

As suggested by Florian Weimer:

It may make sense to move this documentation to a separate manual page, specific to readdir_r. This will keep the readdir() documentation nice and crisp. Most programmers will never have to consult all these details.

Michael Kerrisk

Near complete restructuring of the page and add some further details

Michael Kerrisk [Florian Weimer, Rich Felker, Paul Eggert]

Add a lot more detail on portable use of the 'd_name' field

readdir_r.3

Michael Kerrisk [Florian Weimer]

New page created after split of readdir(3).

Michael Kerrisk [Florian Weimer]

Explain why readdir_r() is deprecated and readdir() is preferred

Michael Kerrisk [Florian Weimer]
Remove misleading code example using pathconf()

lirc.4
Alec Leamas
New page documenting lirc device driver

Newly documented interfaces in existing pages

adjtimex.2
Michael Kerrisk
Document ntp_adjtime(3)

epoll_ctl.2
Michael Kerrisk [Jason Baron]
Document EPOLLEXCLUSIVE

madvise.2
Minchan Kim [Michael Kerrisk]
Document MADV_FREE
Document the MADV_FREE flag added to madvise() in Linux 4.5.

proc.5
Michael Kerrisk
Document CmaTotal and CmaFree fields of /proc/meminfo
Michael Kerrisk
Document additional /proc/meminfo fields
Document DirectMap4k, DirectMap4M, DirectMap2M, DirectMap1G
Michael Kerrisk
Document MemAvailable /proc/meminfo field
Michael Kerrisk
Document inotify /proc/PID/fdinfo entries
Michael Kerrisk
Document fanotify /proc/PID/fdinfo entries
Michael Kerrisk
Add some kernel version numbers for /proc/PID/fdinfo entries
Michael Kerrisk [Patrick Donnelly]
/proc/PID/fdinfo displays the setting of the close-on-exec flag
Note also the pre-3.1 bug in the display of this info.

socket.7
Craig Gallek [Michael Kerrisk, Vincent Bernat]
Document some BPF-related socket options
Document the behavior and the first kernel version for each of the
following socket options:

SO_ATTACH_FILTER
SO_ATTACH_BPF
SO_ATTACH_REUSEPORT_CBPF
SO_ATTACH_REUSEPORT_EBPF
SO_DETACH_FILTER
SO_DETACH_BPF
SO_LOCK_FILTER

New and changed links

isalpha.1.3

Michael Kerrisk

New link to isalpha.3

longjmp.3

Michael Kerrisk

Replace page with link to setjmp(3), which now incorporates longjmp()

ntp_adjtime.3

Michael Kerrisk

New link to adjtimex(2)

ntp_gettimex.3

Michael Kerrisk

New link to ntp_gettime.3

open_wmemstream.3

Michael Kerrisk

Update link to point to new open_memstream(2) page

posix_spawn.3

Michael Kerrisk

New link to new posix_spawn.3 page

siglongjmp.3

Michael Kerrisk

Rewire link to point to setjmp(3)

strerror.1.3

Michael Kerrisk

New link to strerror.3

Fix missing link

Global changes

Various pages

Michael Kerrisk

Update FTM requirements (`_DEFAULT_SOURCE`)

Michael Kerrisk

Update feature test macro requirements

Update to use `_DEFAULT_SOURCE`, and also changes brought by glibc commit 266865c0e7b79d4196e2cc393693463f03c90bd8.

Various pages

Michael Kerrisk

Simplify FTM requirements

Looking at `<features.h>` (or `feature_test_macros(7)`), one can see that when `_XOPEN_SOURCE` is defined with the value 700 (or greater), then `_POSIX_C_SOURCE` is defined with the value 200809L (or greater). Therefore, terms in the man pages such as

```
_XOPEN_SOURCE\ >=\ 700 || _POSIX_C_SOURCE\ >=\ 200809L
```

can be simplified to:

```
_POSIX_C_SOURCE\ >=\ 200809L
```

Various pages

Michael Kerrisk

Simplify FTM requirements

Looking at `<features.h>` (or `feature_test_macros(7)`), one can see that when `_XOPEN_SOURCE` is defined with the value 600 (or greater), then `_POSIX_C_SOURCE` is defined with the value 200112L (or greater). Therefore, terms in the man pages such as

```
_XOPEN_SOURCE\ >=\ 600 || _POSIX_C_SOURCE\ >=\ 200112L
```

can be simplified to:

```
_POSIX_C_SOURCE\ >=\ 200112L
```

Various pages

Michael Kerrisk

Simplify FTM requirements

`_XOPEN_SOURCE` implies `_POSIX_C_SOURCE >=2`, so simplify FTM requirements in various pages.

Various pages

Michael Kerrisk

Remove "or 'cc -std=c99'" from SYNOPSIS

Under the FTM requirements all of these pages document the requirement for `_ISOC99_SOURCE`. And `feature_test_macros(7)` now

documents that "cc -std=c99" produces the same effect as defining `_ISOC99_SOURCE`. So, all of these pages don't additionally need to specify "or 'cc -std=c99'" under the FTM requirements in the SYNOPSIS. Removing that redundant text also simplifies the SYNOPSIS a little.

Various pages

Michael Kerrisk

Simplify FTM requirements

Looking at `<features.h>` (or `feature_test_macros(7)`), one can see that when `_XOPEN_SOURCE` is defined with the value 600 (or greater), then `_POSIX_C_SOURCE` is defined with the value 200112L (or greater). Therefore, terms in the man pages such as

```
_XOPEN_SOURCE\ >=\ 600 || _POSIX_C_SOURCE\ >=\ 200112L
```

can be simplified to:

```
_POSIX_C_SOURCE\ >=\ 200112L
```

Various pages

Michael Kerrisk

Remove references to `_XOPEN_SOURCE_EXTENDED` in SYNOPSIS

`_XOPEN_SOURCE_EXTENDED` is obsolete (it existed in SUSv1, but not subsequent standards). `_XOPEN_SOURCE >= 500` produces the same effects as `(_XOPEN_SOURCE && _XOPEN_SOURCE_EXTENDED)`. Modifying the SYNOPSIS of various pages that contain:

```
_XOPEN_SOURCE\ >=\ 500 ||  
_XOPEN_SOURCE\ &&\ _XOPEN_SOURCE_EXTENDED
```

to just:

```
_XOPEN_SOURCE\ >=\ 500
```

This has the following benefits:

- a) Simplifying the SYNOPSIS by removing ancient historical information.
- b) Preventing users from being misled into using `_XOPEN_SOURCE_EXTENDED` in new source code.

Various pages

Michael Kerrisk

Remove mention of the obsolete `_POSIX_SOURCE` macro from SYNOPSIS

`_POSIX_SOURCE` was a POSIX.1-1990 creation that was soon made obsolete by `_POSIX_C_SOURCE`. Retaining mention of it

in the feature test macro requirements section of the SYNOPSIS doesn't contain important information, and may mislead readers into actually trying to use this macro. A few mentions of it are maintained in a some pages where defining `_POSIX_SOURCE` inhibits some behavior.

Various sockets-related pages

Michael Kerrisk [Carlos O'Donnell]

Use consistent argument/variable names for socket addresses and lengths

As noted by Carlos, there's quite a bit of inconsistency across pages. Use 'addr' and 'addrlen' consistently in variables and function arguments.

Various pages

Michael Kerrisk

Wording fix: "current file offset" ==> "file offset"

"File offset" is the preferred POSIX terminology.

Various pages

Michael Kerrisk

Word "descriptor" more precisely

Use either "file descriptor" or "message queue descriptor".

Various pages

Michael Kerrisk

ERRORS: add reference to `signal(7)` in description of `EINTR`

Changes to individual pages

locale.1

Marko Myllynen

Add "locale -c charmap" as an example

Addresses https://bugzilla.kernel.org/show_bug.cgi?id=104511.

localedef.1

Marko Myllynen

Add hint on purpose of `--no-archive`

Indicate why using `--no-archive` might be a good idea. The issue is that if you create a custom locale with `localedef(1)` and put it to the locale archive then during the next glibc upgrade the locale archive is updated as well and your custom locale is gone.)

accept.2

Michael Kerrisk

ERRORS: improve description for `EBADF`

adjtimex.2

Michael Kerrisk [John Stultz]

Various improvements after feedback from John Stultz

Michael Kerrisk

Remove FTM requirements

It seems that adjtimex() never needed `_BSD_SOURCE` (and my earlier commit 5918743bc8b02b was simply a blunder).

Michael Kerrisk

Split EINTR error cases

Michael Kerrisk

Note treatment of out-of-range `buf.offset`

Michael Kerrisk

Don't refer reader to `adjtime(3)`

Probably, it's not wise to suggest `adjtime(3)` as the more portable API. Rather, `ntp_adjtime(3)` should be used.

Michael Kerrisk [Naresh Kamboju]

Update details of `buf.offset` EINTR error

Michael Kerrisk

SEE ALSO: add `ntp_gettime(3)`

Michael Kerrisk

Improve description of some PPS timex fields

Michael Kerrisk

Add ATTRIBUTES section

William Preston [Petr Gajdos]

Update a detail in `adjtimex` return value description

Michael Kerrisk

Note range constraints and clamping for `ADJ_FREQUENCY`

bdflush.2

Michael Kerrisk

Note that glibc support for this system call went away in version 2.23

bind.2

Michael Kerrisk

Improve description of ENOENT error

bpf.2

Michael Kerrisk

Document close-on-exec semantics

The close-on-exec file descriptor flag is automatically enabled for FDs returned by `bpf()`.

chmod.2

Michael Kerrisk

Clarify terminology (file mode versus file permission bits)

chown.2

Michael Kerrisk

ERRORS: improve EBADF description

clone.2

unshare.2

Michael Kerrisk

Remove mention of `_BSD_SOURCE` and `_SVID_SOURCE`

The right way to expose declarations for these Linux-specific system calls was always `_GNU_SOURCE`. Mentioning the historical use of `_BSD_SOURCE` and `_SVID_SOURCE` just clouds the issue.

connect.2

Michael Kerrisk

ERRORS: improve EBADF description

create_module.2

Michael Kerrisk

Glibc 2.23 removed last vestiges of support for this system call

delete_module.2

Michael Kerrisk

Glibc 2.23 removed last vestiges of support for this system call

epoll_ctl.2

Michael Kerrisk

Document ELOOP error for circular monitoring loops

eventfd.2

Michael Kerrisk

Note that eventfd info is available in `/proc/PID/fdinfo`

execve.2

Michael Kerrisk [Krzysztof Adamski]

Add EPERM error for capabilities check of capability-dumb binaries

Michael Kerrisk

Add reference to `ld-linux.so(8)`

Michael Kerrisk

SEE ALSO: add `system(3)`

fanotify_init.2

Michael Kerrisk

Note kernel version that allowed `O_CLOEXEC` for `event_f_flags`

fcntl.2

flock.2

Michael Kerrisk

SEE ALSO: add `llocks(8)`

fcntl.2

Michael Kerrisk [Jason Vas Dias]

Rework description of F_SETOWN

As suggested by Jason, make it clearer that I/O signalling requires the use of both F_SETOWN and O_ASYNC. While we're at, make a few other cleanups to the text.

Michael Kerrisk

Remove mention of _BSD_SOURCE to get definition of F_SETOWN/F_GETOWN

This usage went away in glibc 2.20, and the simplest remedy is just to omit mention of it.

futex.2

Michael Kerrisk

FUTEX_CLOCK_REALTIME can now be used with FUTEX_WAIT

get_kernel_syms.2

Michael Kerrisk

Note that glibc does not support this system call

init_module.2

Michael Kerrisk

Glibc 2.23 removed last vestiges of support for this system call

ioctl_list.2

Heinrich Schuchardt

Include uapi/linux/wireless.h

Add the list of wireless IOCTLs.

Heinrich Schuchardt

Path to sockios.h

sockios.h is now in include/uapi

Heinrich Schuchardt

Add reference to netdevice.7

netdevice.7 describes most of the IOCTLs of sockios.h

Heinrich Schuchardt

Transfer structure (wireless.h IOCTLs)

The sole parameter to be passed to the wireless.h IOCTLs is of type struct iwreq*.

ioperm.2

Michael Kerrisk [Alex Henrie]

ioperm.2: Permissions are inherited across fork(2)

See https://bugzilla.kernel.org/show_bug.cgi?id=99911

iopl.2

Michael Kerrisk [Alex Henrie]

Permissions are not inherited across fork(2) or preserved on execve(2)

See https://bugzilla.kernel.org/show_bug.cgi?id=99901

lseek.2

Michael Kerrisk

FUSE now supports SEEK_HOLE and SEEK_DATA

Michael Kerrisk

NFS supports SEEK_HOLE and SEEK_DATA

Michael Kerrisk

SEE ALSO: add open(2)

madvise.2

Michael Kerrisk

Clarify MADV_HWPOISON wording to say that it applies to a page range

mknod.2

Michael Kerrisk

SEE ALSO: add mknod(1)

mount.2

Michael Kerrisk

SEE ALSO: add findmnt(8)

open.2

Michael Kerrisk

NOTES: mention existence of proc/PID/fd and /proc/PID/fdinfo

Mark Post [Petr Gajdos]

O_TMPFILE support is now provided by Btrfs

pipe.2

Michael Kerrisk [Eric Blake]

Note treatment of 'pipefd' on error

poll.2

Michael Kerrisk [Josh Triplett]

Document spurious EAGAIN error that can occur on other systems

Light reworking of text proposed by Josh Triplett.

readlink.2

Michael Kerrisk

Clarify EINVAL error description

recv.2

Heinrich Schuchardt

Equivalence to read()

Describe the recv(2)-read(2) and the recvfrom(2)-recv(2)

equivalences for zero-valued arguments.

Michael Kerrisk

MSG_WAITALL has no effect for datagram sockets

recv.2

cmsg.3

Nikola Forró

Fix type of `cmsg_len` member of `cmsghdr` structure

The type shown for `cmsg_len` member of `cmsghdr` structure is `socklen_t`, but the actual type used by `glibc` and the kernel is `size_t`.

The information was obtained from `glibc` source code:

<http://bit.ly/21m1RMp>

Michael Kerrisk

Note that `cmsg_len` is typed as `socklen_t` in POSIX.1

sched_setaffinity.2

Michael Kerrisk [Florian Weimer, Florian Weimer]

Warn that `CPU_ALLOC()` may allocate a slightly CPU set than requested

Michael Kerrisk [Florian Weimer]

Add reference to `CPU_ALLOC(3)`

sched_setattr.2

Michael Kerrisk [Akihiro Suda]

`EPERM` depends on affinity mask of target thread, not calling thread

select.2

Michael Kerrisk [Josh Triplett]

Document spurious `EAGAIN` error that can occur on other systems

Light reworking of text proposed by Josh Triplett.

Nikos Mavrogiannopoulos

Mention the `'fd_set'` size limitation early and refer to `poll(2)`

Change this because of the serious limitation of `select()` imposing a limit on the range of file descriptors that can be monitored. This is currently mentioned too late in the documentation (in the `NOTES` section). The man page should warn early and refer to `poll(2)` as soon as possible.

Michael Kerrisk

Add details on the `glibc` fixed-size `fd_set` limitation

No modern application should use `select()` on Linux.

select_tut.2

Michael Kerrisk

Some readability fixes to example program

Michael Kerrisk

Better variable names in example program

Michael Kerrisk

Simplify `'if'` logic in example program

Michael Kerrisk

Use correct type (`socklen_t`) for `addrlen`

semctl.2

Michael Kerrisk [Davidlohr Bueso, Manfred Spraul, Philip Semanchuk]

NOTES: note when 'sempid' is set on various implementations

See https://bugzilla.kernel.org/show_bug.cgi?id=112271 and

<http://thread.gmane.org/gmane.linux.kernel/2162754/>

Subject: [PATCH] Don't set sempid in semctl syscall.

Date: 2016-02-26 12:21:38 GMT

semop.2

Michael Kerrisk

Tweak comment describing 'sempid'

sendfile.2

Askar Safin

Fix incorrect description in text referring to splice(2)

Michael Kerrisk

SEE ALSO: add copy_file_range(2)

setpgid.2

Michael Kerrisk

Correct/simplify FTM requirements for BSD setpgrp() and getpgrp()

signalfd.2

Michael Kerrisk

Note that signalfd info is available in /proc/PID/fdinfo

sigprocmask.2

Michael Kerrisk [Mike Frylinger]

Explicitly refer the reader to sigsetops(3)

This man page did not make it obvious which functions should be used for manipulating signals sets, nor where those functions were documented.

socketpair.2

Michael Kerrisk [Eric Blake]

Note treatment of 'sv' on error

splice.2

Askar Safin

Improve description of 0 return value.

See https://bugzilla.kernel.org/show_bug.cgi?id=90911

statfs.2

Michael Kerrisk [Jakub Wilk]

Use consistent case for hex constants

sync.2

Christoph Hellwig

Clarify description and document the Linux data integrity guarantees

syscall.2

Mike Frysinger

Add more architectures and improve error documentation

Move the error register documentation into the main table rather than listing them in sentences after the fact.

Add sparc error return details.

Add details for alpha/arc/m68k/microblaze/nios2/powerpc/superh/tile/xtensa.

syscalls.2

Michael Kerrisk

Add copy_file_range(2)

times.2

Kondo, Naoya

Fix an incorrect description in NOTES

The text has an incorrect description in NOTES, it says that $(2^{32}/\text{HZ}) - 300$ is about 429 million. It is correct only if $\text{HZ}=10$ which does not look common today. So just removing "(i.e., about 429 million)" is good enough.

truncate.2

Michael Kerrisk

SEE ALSO: add truncate(1)

uselib.2

Michael Kerrisk

Mention CONFIG_USELIB

Michael Kerrisk

Note that glibc does not support this (obsolete) system call

wait.2

wait4.2

Michael Kerrisk

Rename the "status" argument to "wstatus"

The fact that `exit(3)/_exit(2)` has an argument called "status" and the same name is used in the arguments to the `wait*()` calls can a little too easily lead the user into thinking that the two arguments hold the same information, when of course they don't. So, use a different name for the argument of the `wait*()` functions, to reduce the chances of such confusion.

backtrace.3

Michael Kerrisk [Martin Gebert]

Small fixes to example program

clearenv.3

Michael Kerrisk [Matt Zimmerman]

Clarify the use and effect of clearenv()

See <http://bugs.debian.org/679323>

Michael Kerrisk

Variables can be added to the environment after calling clearenv()

clog10.3

Michael Kerrisk

Show an alternative equivalence for clog10()

Michael Kerrisk

Update CONFORMING TO

Fix grammar error and add C11.

dl_iterate_phdr.3

Michael Kerrisk [Paul Pluzhnikov]

Describe 'struct dl_phdr_info' fields added in glibc 2.4

See https://bugzilla.kernel.org/show_bug.cgi?id=103011

Michael Kerrisk [Simon Que]

Note that first object visited by 'callback' is the main program

See https://bugzilla.kernel.org/show_bug.cgi?id=94141

errno.3

Michael Kerrisk

Add some explanation of ENOENT error

exec.3

Michael Kerrisk

SEE ALSO: add system(3)

exp.3

Michael Kerrisk [Joachim Wuttke]

SEE ALSO: add expm1(3)

fopen.3

Michael Kerrisk

SEE ALSO: add open_memstream(3)

fts.3

Michael Kerrisk

BUGS: glibc-2.23 now has LFS support for the fts functions

gamma.3

Michael Kerrisk [Alan Cox]

gamma() was documented in SVID 2

getaddrinfo.3

Michael Kerrisk [Andreas Schwab, Orion Poplawski]

Update FTM requirements for glibc 2.22

Since glibc 2.22 getaddrinfo() etc. are only declared for POSIX.1-2001 or later.

getcwd.3

Michael Kerrisk

SEE ALSO: add pwd(1)

opendir.3

Michael Kerrisk

Help the reader by explicitly mentioning the use of readdir(3)

perror.3

Michael Kerrisk

Suggest use of strerror(3) in place of deprecated 'sys_errlist'

posix_fallocate.3

J r mie Galarneau

ERRORS: add EINTR

The glibc implementation of posix_fallocate(), which calls fallocate(), may be interrupted. The fallocate() emulation also makes use of pread()/pwrite(), which may also be interrupted.

posix_memalign.3

Michael Kerrisk [Eric Blake]

Note posix_memalign()'s treatment of 'memptr' on error

pthread_setaffinity_np.3

Michael Kerrisk

SEE ALSO: add CPU_SET(3)

queue.3

Dr. Tobias Quathamer

Remove double CONFORMING TO section

rcmd.3

Nikola Forr 

Add missing condition concerning .rhosts file

The list of conditions determining if iruserok() and ruserok() functions automatically fail is incomplete. According to glibc source code, the functions also fail if the .rhosts file is hard linked anywhere.

setbuf.3

Michael Kerrisk

SEE ALSO: add stdbuf(1)

setjmp.3

Michael Kerrisk

Rewrite and merge `longjmp()/siglongjmp()` discussion into this page

The discussion of nonlocal gotos is much easier to read if `setjmp()` and `longjmp()` are discussed in the same page. While we're at it, rework almost the entire text and add several more details.

Michael Kerrisk

Note the interactions of `longjmp()` and non-async-signal-safe functions
POSIX.1-2008 TC2 adds explicit text on this point.

See <http://austingroupbugs.net/view.php?id=516#c1195>

Michael Kerrisk

Explain why nonlocal gotos make code harder to maintain

Michael Kerrisk

Reword warning on `longjmp()` to function that has already returned

Michael Kerrisk

Remove reference to obsolete `_XOPEN_SOURCE_EXTENDED`

sleep.3

Michael Kerrisk

SEE ALSO: add `sleep(1)`

strftime.3

Michael Kerrisk [Jeremy Harris]

Note which 'tm' fields are used to calculate each output string

See https://bugzilla.redhat.com/show_bug.cgi?id=1162218

strlen.3

Michael Kerrisk [Alan Aversa]

CONFORMING TO: add C11

system.3

Michael Kerrisk

SEE ALSO: add `execve(2)`

termios.3

Dr. Tobias Quathamer

Document line length in canonical mode

See https://git.kernel.org/cgit/linux/kernel/git/torvalds/linux.git/tree/drivers/tty/n_tty.c#n1673

See <https://bugs.debian.org/797479>

Michael Kerrisk

SEE ALSO: add `tty(1)`

Michael Kerrisk [Peter Hurley]

Further improvements to recent tweaks of canonical mode 4096 char limit

timegm.3

Michael Kerrisk [Stephen Hurd, Mats Wichmann]

Remove sample implementation of timegm()

Stephen and Mats both question the wisdom of showing a portable *non-thread-safe* implementation of timegm(), and I find it hard to disagree. So, remove this code.

See https://bugzilla.kernel.org/show_bug.cgi?id=103701

Michael Kerrisk

Expand DESCRIPTION a little

st4.4

Dr. Tobias Quathamer

Remove spurious copyright section

tty_ioctl.4

Michael Kerrisk

SEE ALSO: add ldattach(1)

elf.5

Michael Kerrisk [Gabriel Corona, Mike Frysinger]

Fix description of STV_PROTECTED

Michael Kerrisk

Improve description of STV_DEFAULT

Michael Kerrisk

Improve description of STV_HIDDEN

Chris Pick

Remove erroneous, duplicate SHN_* section

Michael Kerrisk [Chris Pick]

Reword discussion of range values a little

gai.conf.5

Michael Kerrisk

Add VERSIONS section

group.5

Michael Kerrisk

SEE ALSO: add groups(2)

SEE ALSO: add gpasswd(1)

SEE ALSO: add sg(1)

SE ALSO: add gshadow(5)

SEE ALSO: add chgrp(1)

locale.5

Marko Myllynen [Mike Frysinger]

tel + fax are deprecated

nsswitch.conf.5

Nikola Forró

Update NSS compatibility mode description

utmp.5

Michael Kerrisk

SEE ALSO: add lslogins(1)

aio.7

Andreas Gruenbacher

Improve example

When aio_sigevent.sigev_notify is set to SIGEV_SIGNAL, signal handlers called for asynchronous I/O operations will have si->si_code set to SI_ASYNCIO. Check to make sure that si->si_value.sival_ptr is defined.

capabilities.7

Michael Kerrisk

Explain safety check for capability-dumb binaries

Michael Kerrisk

SEE ALSO: add sg(1), su(1)

SEE ALSO: add id(1), group(5), passwd(5)

credentials.7

Michael Kerrisk

SEE ALSO: add groups(2)

environ.7

Michael Kerrisk

Describe the Bourne "NAME=value command" syntax

Michael Kerrisk

Add some details describing how shell's environment is initialized

Michael Kerrisk

Note that child of fork(2) inherits copy of parent's environment

Michael Kerrisk

SEE ALSO: add pam_env(3)

epoll.7

Michael Kerrisk

Mention that epoll info is available via /proc/PID/fdinfo

fanotify.7

Michael Kerrisk

Refer reader to proc(5) for info on /proc/PID/fdinfo fanotify entries

feature_test_macros.7

Michael Kerrisk

Add a summary of some FTM key points

Michael Kerrisk

Give an early hint about some macros being defined by default

Michael Kerrisk

Clarify relation between `_XOPEN_SOURCE >=500` and `_XOPEN_SOURCE_EXTENDED`
Emphasize that defining `_XOPEN_SOURCE >=500` produces same effects as defining `_XOPEN_SOURCE_EXTENDED`.

Michael Kerrisk

Note that man pages don't mention `_XOPEN_SOURCE_EXTENDED`
As per previous commit, mention of `_XOPEN_SOURCE_EXTENDED` has generally been removed from the man pages.

Michael Kerrisk

Note effects of `"cc -std=c99"` and `"cc -std=c11"`

Michael Kerrisk

Clarify some `_ISOC99_SOURCE` / `_DEFAULT_SOURCE` details

Michael Kerrisk

Clarify that `_XOPEN_SOURCE_EXTENDED` is obsolete
Since SUSv2, `_XOPEN_SOURCE_EXTENDED` is no longer specified in the standard.

inotify.7

Michael Kerrisk

Refer reader to `proc(5)` for info on `/proc/PID/fdinfo` inotify entries

ip.7

Eric Dumazet

Document `IP_BIND_ADDRESS_NO_PORT` socket option

mq_overview.7

Michael Kerrisk

Note that the close-on-exec flag is automatically set on MQ descriptors

namespaces.7

Michael Kerrisk

SEE ALSO: `add lsns(1)`

`lsns(1)` was recently added in `util-linux`, probably to appear in next release (2.28?).

pipe.7

Michael Kerrisk [Jason Vas Dias]

Clarify that I/O signalling requires use of both `F_SETOWN` and `O_ASYNC`

Michael Kerrisk

SEE ALSO: `add mkfifo(1)`

signal.7

Michael Kerrisk

Note the interactions of `longjmp()` and non-async-signal-safe functions
See <http://austingroupbugs.net/view.php?id=516#c1195>.

socket.7

Michael Kerrisk

SEE ALSO: add pcap(3)
SEE ALSO: add wireshark(1) and tcpdump(8)

standards.7

Michael Kerrisk
Add POSIX.1-2008 TC2 (POSIX.1-2016)

svipc.7

Michael Kerrisk
Tweak description of 'sempid'
Michael Kerrisk
SEE ALSO: add lsipc(1)

symlink.7

Michael Kerrisk [Zefram]
Some "magic" symlinks have permissions other than 0777
See <https://bugs.debian.org/743525>

time.7

Michael Kerrisk
SEE ALSO: add timeout(1)
SEE ALSO: add ntp_adjtime(3) and ntp_gettime(3)

unicode.7

Dr. Tobias Quathamer
Document private use areas
See <https://bugs.debian.org/285444>

unix.7

Heinrich Schuchardt
Add example
A complete example demonstrating the usage of sockets for local interprocess communication is added.
Michael Kerrisk
Introduce term "sequenced-packet" for SOCK_SEQPACKET
Michael Kerrisk
Some wording improvements

==== Changes in man-pages-4.06 =====

Released: 2016-05-09, Oslo

Contributors

The following people contributed patches/fixes or (noted in brackets

in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

cgroups.7

Serge Hallyn, Michael Kerrisk
New page documenting cgroups

cgroup_namespaces.7

Michael Kerrisk [Serge Hallyn]
New page describing cgroup namespaces

Newly documented interfaces in existing pages

clone.2

Michael Kerrisk
Document CLONE_NEWCGROUP

readv.2

Christoph Hellwig

Document preadv2() and pwritev2()
setns.2
Michael Kerrisk
Document CLONE_NEWCGROUP

unshare.2
Michael Kerrisk
Document CLONE_NEWCGROUP

Changes to individual pages

clock_getres.2
Michael Kerrisk [Rasmus Villemoes]
Note that coarse clocks need architecture and VDSO support

clone.2
fork.2
Nikola Forró
Document ERESTARTNOINTR error code

clone.2
Michael Kerrisk [Colin Ian King]
ERRORS: add EINVAL for improperly aligned 'child_stack' value

execve.2
Michael Kerrisk [Valery Reznic]
Since Linux 2.6.28, recursive script interpretation is supported

fcntl.2
Michael Kerrisk
Note that mandatory locking is now governed by a configuration option

fsync.2
Michael Kerrisk [Georg Sauthoff]
Give some examples of files where sync can fail with EINVAL

getrlimit.2
Michael Kerrisk
SEE ALSO: add cgroups(7)

ioctl_fat.2
Heinrich Schuchardt
Use %04x to print volume ID
Leading zeroes should be used when display a FAT volume ID.

ioprio_set.2

Michael Kerrisk

SEE ALSO: add cgroups(7)

lseek.2

Michael Kerrisk

Note that 'off_t' is an integer data type defined by POSIX

memfd_create.2

Michael Kerrisk

Note that memfd_create() does not have a glibc wrapper

mount.2

Michael Kerrisk

MS_MANDLOCK requires CAP_SYS_ADMIN (since Linux 4.5)

quotactl.2

Michael Kerrisk

Document Q_GETNEXTQUOTA and Q_XGETNEXTQUOTA

Michael Kerrisk

Rework/reorder ERRORS list

Make into a single alphabetically ordered list

Michael Kerrisk

Note kernel version that removed Q_GETSTATS

Michael Kerrisk

Add kernel version for G_GETINFO, Q_SETINFO, and Q_GETFMT

readv.2

Michael Kerrisk

Clarify that 'size_t' and 'ssize_t' are integer types specified in POSIX

semctl.2

Michael Kerrisk

From kernel 4.6, Linux now updates 'sempid' on SETALL operations

sigaction.2

Michael Kerrisk

Document SEGV_BNDERR

Michael Kerrisk

Document SEGV_PKUERR

syscalls.2

Michael Kerrisk

Add preadv2() and pwritev2()

write.2

Michael Kerrisk

Clarify that 'size_t' and 'ssize_t' are integer types specified in POSIX

makedev.3

Mike Frysinger

Use `<sys/sysmacros.h>` in SYNOPSIS

Defining these functions via `<sys/types.h>` causes problems for some folk. As noted by Zack Wein:

libstdc++ force-enables `_GNU_SOURCE`, which means people writing in C++ `_can't_` avoid these nonstandard macros by using a strict conformance mode.

Since glibc has basically always used `<sys/sysmacros.h>`, update the docs to have people include that instead.

Michael Kerrisk

NOTES: mention that `<sys/types.h>` may also define these macros

popen.3

Nikola Forró

RETURN VALUE: describe successful case

Reference:

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/popen.html>

<http://pubs.opengroup.org/onlinepubs/9699919799/functions/pclose.html>

strtod.3

Michael Kerrisk [Ed Avis]

Improve a detail in RETURN VALUE

core.5

Michael Kerrisk

Document `/proc/sys/kernel/core_pipe_limit`

locale.5

Marko Myllynen

Adjust `LC_IDENTIFICATION` / abbreviation

Tiny tweak to locale.5 based on the on ISO/IEC TR 14652:

<http://www.open-std.org/jtc1/SC22/WG20/docs/n972-14652ft.pdf>

Marko Myllynen

Update `LC_ADDRESS` after glibc change

This patch updates locale.5 to match the recent glibc change in commit `a837257199ffab76237385b830cc7b6179fc2f18`

Marko Myllynen

Complete `LC_COLLATE`

Here's the first attempt to (almost) complete the locale.5 manual page by documenting all (but perhaps one) of the missing `LC_COLLATE` keywords.

Mike Frysinger

`country_car`: Add a better description

nsswitch.conf.5

Marko Myllynen

Document group merging

Document the recently merged glibc group merge support.

Glibc commit ced8f8933673f4efda1d666d26a1a949602035ed

<https://sourceware.org/glibc/wiki/Proposals/GroupMerging>

proc.5

Michael Kerrisk

Move /proc/PID/cgroup discussion to cgroups(7) page

Michael Kerrisk

Add some background on why /proc/PID/mountinfo was added

Michael Kerrisk

Improve description of /proc/PID/mountinfo 'root' field

Michael Kerrisk

Add pointer to cgroups(7) for documentation of /proc/cgroups

Michael Kerrisk

Add reference to core(5) for info on /proc/sys/kernel/core_pipe_limit

cpuset.7

Michael Kerrisk

SEE ALSO: add cgroups(7)

ip.7

Benjamin Poirier

Fix incorrect sockopt name

"IP_LEAVE_GROUP" does not exist. It was perhaps a confusion with MCAST_LEAVE_GROUP. Change the text to IP_DROP_MEMBERSHIP which has the same function as MCAST_LEAVE_GROUP and is documented in the ip.7 man page.

Reference:

Linux kernel net/ipv4/ip_sockglue.c do_ip_setsockopt()

namespaces.7

Michael Kerrisk

SEE ALSO: add cgroups(7), cgroup_namespaces(7)

vdso.7

Zubair Lutfullah Kakakhel [Mike Frysinger]

Update for MIPS

Document the symbols exported by the MIPS VDSO.

VDSO support was added from kernel 4.4 onwards.

See <https://git.kernel.org/cgit/linux/kernel/git/torvalds/linux.git/log/arch/mips/vdso>

Michael Kerrisk [Rasmus Villemoes]

The `__kernel_clock_*` interfaces don't support `*_COARSE` clocks on PowerPC

ld.so.8

Michael Kerrisk [Alon Bar-Lev]

Document use of \$ORIGIN, \$LIB, and \$PLATFORM in environment variables

These strings are meaningful in LD_LIBRARY_PATH and LD_PRELOAD.

==== Changes in man-pages-4.07 =====

Released: 2016-07-17, Ulm

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

ioctl_fideduperange.2

Darrick J. Wong [Christoph Hellwig, Michael Kerrisk]

New page documenting the FIDEDUPERANGE ioctl

Document the FIDEDUPERANGE ioctl, formerly known as
BTRFS_IOC_EXTENT_SAME.

ioctl_ficlonerange.2

Darrick J. Wong [Christoph Hellwig, Michael Kerrisk]

New page documenting FICLONE and FICLONERANGE ioctls

Document the FICLONE and FICLONERANGE ioctls, formerly known as
the BTRFS_IOC_CLONE and BTRFS_IOC_CLONE_RANGE ioctls.

nextup.3

Michael Kerrisk

New page documenting nextup(), nextdown(), and related functions

mount_namespaces.7

Michael Kerrisk [Michael Kerrisk]

New page describing mount namespaces

Newly documented interfaces in existing pages

mount.2

Michael Kerrisk

Document flags used to set propagation type

Document MS_SHARED, MS_PRIVATE, MS_SLAVE, and MS_UNBINDABLE.

Michael Kerrisk

Document the MS_REC flag

ptrace.2

Michael Kerrisk [Kees Cook, Jann Horn, Eric W. Biederman, Stephen Smalley]

Document ptrace access modes

proc.5

Michael Kerrisk

Document /proc/[pid]/timerslack_ns

Michael Kerrisk

Document /proc/PID/status 'Ngid' field

Michael Kerrisk

Document /proc/PID/status fields: 'NStgid', 'NSpid', 'NSpgid', 'NSsid'

Michael Kerrisk

Document /proc/PID/status 'Umask' field

New and changed links

preadv2.2

pwritev2.2

Michael Kerrisk

New links to readv(2)

nextdown.3

nextdownf.3

nextdownl.3

nextupf.3

nextupl.3

Michael Kerrisk

New links to nextup(3)

Changes to individual pages

ldd.1

Michael Kerrisk

Add a little more detail on why ldd is unsafe with untrusted executables

Michael Kerrisk

Add more detail on the output of ldd

localedef.1

Marko Myllynen

Drop --old-style description

The glibc upstream decided to drop localedef(1) --old-style option [1] altogether, I think we can do the same with localedef(1), the option hasn't done anything in over 16 years and I doubt anyone uses it.

add_key.2

Mitch Walker

Empty payloads are not allowed in user-defined keys

chroot.2

Michael Kerrisk

SEE ALSO: add pivot_root(2)

clone.2

Michael Kerrisk

Add reference to mount_namespaces(7) under CLONE_NEWNS description

fork.2

Michael Kerrisk

Add ENOMEM error for PID namespace where "init" has died

futex.2

Michael Kerrisk

Correct an ENOSYS error description

Since Linux 4.5, FUTEX_CLOCK_REALTIME is allowed with FUTEX_WAIT.

Michael Kerrisk [Darren Hart]

Remove crufty text about FUTEX_WAIT_BITSET interpretation of timeout

Since Linux 4.5, FUTEX_WAIT also understands

FUTEX_CLOCK_REALTIME.

Michael Kerrisk [Thomas Gleixner]

Explain how to get equivalent of FUTEX_WAIT with an absolute timeout

Michael Kerrisk

Describe FUTEX_BITSET_MATCH_ANY

Describe FUTEX_BITSET_MATCH_ANY and FUTEX_WAIT and FUTEX_WAKE equivalences.

Michael Kerrisk

Note that at least one bit must be set in mask for BITSET operations

At least one bit must be set in the 'val3' mask supplied for the

FUTEX_WAIT_BITSET and FUTEX_WAKE_BITSET operations.

Michael Kerrisk [Thomas Gleixner, Darren Hart]

Fix descriptions of various timeouts

Michael Kerrisk

Clarify clock default and choices for FUTEX_WAIT

getitimer.2

Michael Kerrisk

Substantial rewrites to various parts of the page

Michael Kerrisk [Tom Callaway]

Change license to note that page may be modified

The page as originally written carried text that said the page may be freely distributed but made no statement about modification. In the 20+ years since it was first written, the page has in fact seen repeated, sometimes substantial, modifications, and only a small portion of the original text remains. One could I suppose rewrite the last few pieces that remain from the original, but as the largest contributor to the pages existing text, I'm just going to relicense it to explicitly note that modification is permitted. (I presume the failure by the original author to grant permission to modify was simply an oversight; certainly, the large number of people who have changed the page have taken that to be the case.)

See also https://bugzilla.kernel.org/show_bug.cgi?id=118311

get_mempolicy.2

Michael Kerrisk [Jörn Engel]

Correct rounding to 'maxnodes' (bits, not bytes)

Michael Kerrisk [Jörn Engel]

Fix prototype for get_mempolicy()

In numaif.h, 'addr' is typed as 'void *'

getpriority.2

Michael Kerrisk

Make discussion of RLIMIT_NICE more prominent

The discussion of RLIMIT_NICE was hidden under the EPERM error, where it was difficult to find. Place some relevant text in DESCRIPTION.

Michael Kerrisk

Note that getpriority()/setpriority deal with same attribute as nice(2)

Michael Kerrisk [Robin Kuzmin]

Clarify equivalence between lower nice value and higher priority

get_robust_list.2

Michael Kerrisk

get_robust_list() is governed by PTRACE_MODE_READ_REALCREDS

ioctl.2

Michael Kerrisk

SEE ALSO: add ioctl_fideduperange(2) and ioctl_ficlonerange(2)

kcmp.2

Michael Kerrisk

kcmp() is governed by PTRACE_MODE_READ_REALCREDS

Shawn Landden

Note about SECURITY_YAMA

kill.2

Michael Kerrisk [John Wiersba]

Clarify the meaning if sig==0

lookup_dcookie.2

Michael Kerrisk

SEE ALSO: add oprofile(1)

mmap.2

Michael Kerrisk [Rahul Bedarkar]

EXAMPLE: for completeness, add munmap() and close() calls

mount.2

Michael Kerrisk

Restructure discussion of 'mountflags' into functional groups

The existing text makes no differentiation between different "classes" of mount flags. However, certain flags such as MS_REMOUNT, MS_BIND, MS_MOVE, etc. determine the general type of operation that mount() performs. Furthermore, the choice of which class of operation to perform is performed in a certain order, and that order is significant if multiple flags are specified. Restructure and extend the text to reflect these details.

Michael Kerrisk

Relocate text on multimounting and mount stacking to NOTES

The text was somewhat out of place in its previous location; NOTES is a better location.

Michael Kerrisk

Remove version numbers attached to flags that are modifiable on remount

This information was simply bogus. Mea culpa.

Michael Kerrisk

Refer reader to mount_namespaces(7) for details on propagation types

Michael Kerrisk

SEE ALSO: s/namespaces(7)/mount_namespaces(7)/

Omar Sandoval

MS_BIND still ignores mountflags

This is clear from the do_mount() function in the kernel as of v4.6.

Michael Kerrisk

Note the default treatment of ATIME flags during MS_REMOUNT

The behavior changed in Linux 3.17.

Michael Kerrisk

Clarify that MS_MOVE ignores remaining bits in 'mountflags'

Michael Kerrisk

Note kernel version that added MS_MOVE

Michael Kerrisk

MS_NOSUID also disables file capabilities

Michael Kerrisk

Relocate/demote/rework text on MS_MGC_VAL

The use of this constant has not been needed for 15 years now.

Michael Kerrisk

Clarify that 'source' and 'target' are pathnames, and can refer to files

Michael Kerrisk

Update example list of filesystem types

Put more modern examples in; remove many older examples.

Michael Kerrisk

MS_LAZYTIME and MS_RELATIME can be changed on remount

Michael Kerrisk

Explicitly note that MS_DIRSYNC setting cannot be changed on remount

Michael Kerrisk

Move text describing 'data' argument higher up in page

In preparation for other reworking.

Michael Kerrisk

Since Linux 2.6.26, bind mounts can be made read-only

open.2

Eric Biggers

Refer to correct functions in description of O_TMPFILE

pciconfig_read.2

Michael Kerrisk [Tom Callaway]

Change license to note that page may be modified

Niki Rahimi, the author of this page, has agreed that it's okay to change the license to note that the page can be modified.

See https://bugzilla.kernel.org/show_bug.cgi?id=118311

perf_event_open.2

Michael Kerrisk

If pid > 0, the operation is governed by PTRACE_MODE_READ_REALCREDS

Jann Horn

Document new perf_event_paranoid default

Keno Fischer [Vince Weaver]

Add a note that dyn_size is omitted if size == 0

The perf_output_sample_ustack in kernel/events/core.c only writes a single 64 bit word if it can't dump the user registers. From the current version of the man page, I would have expected two 64 bit words (one for size, one for dyn_size). Change the man page to make this behavior explicit.

prctl.2

Michael Kerrisk

Some wording improvements in timer slack description

Michael Kerrisk

Refer reader to discussion of `/proc/[pid]/timerslack_ns`

Under discussion of `PR_SET_TIMERSLACK`, refer the reader to the `/proc/[pid]/timerslack_ns` file, documented in `proc(5)`.

`process_vm_readv.2`

Michael Kerrisk

Rephrase permission rules in terms of a `ptrace` access mode check

`ptrace.2`

Michael Kerrisk [Jann Horn]

Update Yama `ptrace_scope` documentation

Reframe the discussion in terms of `PTRACE_MODE_ATTACH` checks, and make a few other minor tweaks and additions.

Michael Kerrisk, Jann Horn

Note that user namespaces can be used to bypass Yama protections

Michael Kerrisk

Note that `PTRACE_SEIZE` is subject to a `ptrace` access mode check

Michael Kerrisk

Rephrase `PTRACE_ATTACH` permissions in terms of `ptrace` access mode check

`quotactl.2`

Michael Kerrisk [Jacob Willoughby]

'`dqb_curspace`' is in bytes, not blocks

This error appears to have been injected into `glibc` when copying some headers from BSD.

See <https://bugs.debian.org/825548>

`recv.2`

Michael Kerrisk [Tom Gundersen]

With pending 0-length datagram `read()` and `recv()` with `flags == 0` differ

`setfsuid.2`

`setfsuid.2`

Jann Horn [Michael Kerrisk]

Fix note about errors from the syscall wrapper

See `sysdeps/unix/sysv/linux/i386/setfsuid.c` in `glibc-2.2.1`.

(This code is not present in modern `glibc` anymore.)

Michael Kerrisk

Move `glibc` wrapper notes to "C library/kernel differences" subsection

`sysinfo.2`

Michael Kerrisk

Rewrite and update various pieces

`umask.2`

Michael Kerrisk

NOTES: Mention /proc/PID/status 'Umask' field

umount.2

Michael Kerrisk

SEE ALSO: add mount_namespaces(7)

unshare.2

Michael Kerrisk

Add reference to mount_namespaces(7) under CLONE_NEWNS description

utimensat.2

Michael Kerrisk [Rob Landley]

Note that the glibc wrapper disallows pathname==NULL

wait.2

Michael Kerrisk

Since Linux 4.7, __WALL is implied if child being ptraced

Michael Kerrisk

waitid() now (since Linux 4.7) also supports __WNOTHREAD/__WCLONE/__WALL

assert.3

Nikos Mavrogiannopoulos

Improved description

Removed text referring to text not being helpful to users. Provide the error text instead to allow the reader to determine whether it is helpful. Recommend against using NDEBUB for programs to exhibit deterministic behavior. Moved description ahead of recommendations.

Michael Kerrisk

Clarify details of message printed by assert()

fmax.3

fmin.3

Michael Kerrisk

SEE ALSO: add fdim(3)

getauxval.3

Cownie, James H

Correct AT_HWCAP result description

inet_pton.3

Stefan Puiu

Mention byte order

malloc_hook.3

Michael Kerrisk

glibc 2.24 removes __malloc_initialize_hook

memmem.3

Michael Kerrisk [Shawn Landden]

Note that memmem() is present on some other systems

mkdtemp.3

mktemp.3

Michael Kerrisk

SEE ALSO: add mktemp(1)

printf.3

Michael Kerrisk [Shawn Landden]

Note support in other C libraries for %m and %n

strcasecmp.3

Michael Kerrisk [Ori Avtalion]

Make details of strncasecmp() comparison clearer

strcat.3

Michael Kerrisk

Add a program that shows the performance characteristics of strcat()

In honor of Joel Spolsky's visit to Munich, let's start educating Schlemiel The Painter.

strtol.3

Michael Kerrisk

SEE ALSO: add a64l(3)

strxfrm.3

Michael Kerrisk [Florian Weimer]

Remove NOTES section

strxfrm() and strncpy() are not precisely equivalent in the POSIX locale, so this NOTES section was not really correct.

See https://bugzilla.kernel.org/show_bug.cgi?id=104221

console_codes.4

console_ioctl.4

tty.4

vcs.4

charsets.7

Marko Myllynen

Remove console(4) references

0f9e647 removed the obsolete console(4) page but we still have few references to it. The patch below removes them or converts to refs to console_ioctl(4) where appropriate.

console_ioctl.4

Michael Kerrisk [Chris Gassib]

The argument to KDGETMODE is an 'int'

lirc.4

Alec Leamas

Update after upstreamed lirc.h, bugfixes.

st.4

Kai Mäkisara

Fix description of read() when block is larger than request

Kai Mäkisara

Update MTMKPART for kernels ≥ 4.6

Update the description of the MTMKPART operation of MTIOCTOP to match the changes in kernel version 4.6.

charmap.5

Marko Myllynen

Clarify keyword syntax

Updates charmap(5) to match the syntax all the glibc charmap files are using currently.

elf.5

Michael Kerrisk

SEE ALSO: add readelf(1)

locale.5

Marko Myllynen

Document missing keywords, minor updates

Marko Myllynen

Clarify keyword syntax

Marko Myllynen

Adjust conformance

proc.5

namespaces.7

Michael Kerrisk

Move /proc/PID/mounts information to proc(5)

There was partial duplication, and some extra information in namespaces(7). Move everything to proc(5).

proc.5

Michael Kerrisk

/proc/PID/fd/* are governed by PTRACE_MODE_READ_FSCREDS

Permission to dereference/readlink /proc/PID/fd/* symlinks is governed by a PTRACE_MODE_READ_FSCREDS ptrace access mode check.

Michael Kerrisk

/proc/PID/timerslack_ns is governed by PTRACE_MODE_ATTACH_FSCREDS

Permission to access /proc/PID/timerslack_ns is governed by

a `PTRACE_MODE_ATTACH_FSCREDS` ptrace access mode check.

Michael Kerrisk

Document `/proc/PID/{maps,mem,pagemap}` access mode checks

Permission to access `/proc/PID/{maps,pagemap}` is governed by a `PTRACE_MODE_READ_FSCREDS` ptrace access mode check.

Permission to access `/proc/PID/mem` is governed by a

`PTRACE_MODE_ATTACH_FSCREDS` ptrace access mode check.

Michael Kerrisk

Note `/proc/PID/stat` fields that are governed by `PTRACE_MODE_READ_FSCREDS`

Michael Kerrisk

`/proc/PID/{cwd,exe,root}` are governed by `PTRACE_MODE_READ_FSCREDS`

Permission to dereference/readlink `/proc/PID/{cwd,exe,root}` is governed by a `PTRACE_MODE_READ_FSCREDS` ptrace access mode check.

Michael Kerrisk

`/proc/PID/io` is governed by `PTRACE_MODE_READ_FSCREDS`

Permission to access `/proc/PID/io` is governed by a `PTRACE_MODE_READ_FSCREDS` ptrace access mode check.

Michael Kerrisk

`/proc/PID/{personality,stack,syscall}` are governed by `PTRACE_MODE_ATTACH_FSCREDS`

Permission to access `/proc/PID/{personality,stack,syscall}` is governed by a `PTRACE_MODE_ATTACH_FSCREDS` ptrace access mode check.

Michael Kerrisk

`/proc/PID/{auxv,environ,wchan}` are governed by `PTRACE_MODE_READ_FSCREDS`

Permission to access `/proc/PID/{auxv,environ,wchan}` is governed by a `PTRACE_MODE_READ_FSCREDS` ptrace access mode check.

Michael Kerrisk

Move shared subtree `/proc/PID/mountinfo` fields to `mount_namespaces(7)`

Move information on shared subtree fields in `/proc/PID/mountinfo` to `mount_namespaces(7)`.

Michael Kerrisk ["Yuming Ma()"]

Note that `/proc/net` is now virtualized per network namespace

Michael Kerrisk

Add references to `mount_namespaces(7)`

repertoiremap.5

Marko Myllynen

Clarify keyword syntax

utmp.5

Michael Kerrisk

SEE ALSO: `add_logname(1)`

capabilities.7

Michael Kerrisk [Andy Lutomirski]

Note on `SECURE_NO_CAP_AMBIENT_RAISE` for capabilities-only environment

Michael Kerrisk

Add a detail on use of `securebits`

cgroup_namespaces.7

Michael Kerrisk

SEE ALSO: add namespaces(7)

cgroups.7

Michael Kerrisk

ERRORS: add mount(2) EBUSY error

cp1251.7

cp1252.7

iso_8859-1.7

iso_8859-15.7

iso_8859-5.7

koi8-r.7

koi8-u.7

Marko Myllynen

Add some charset references

Add some references to related charsets here and there.

credentials.7

Michael Kerrisk

SEE ALSO: add runuser(1)

SEE ALSO: add newgrp(1)

SEE ALSO: add sudo(8)

feature_test_macros.7

Michael Kerrisk

Emphasize that applications should not directly include <features.h>

man-pages.7

Michael Kerrisk

Clarify which sections man-pages provides man pages for

Michael Kerrisk [Josh Triplett]

Add a few more details on formatting conventions

Add some more details for Section 1 and 8 formatting.

Separate out formatting discussion into commands, functions,
and "general".

namespaces.7

Michael Kerrisk

/proc/PID/ns/* are governed by PTRACE_MODE_READ_FSCREDS

Permission to dereference/readlink /proc/PID/ns/* symlinks is

governed by a PTRACE_MODE_READ_FSCREDS ptrace access mode check.

Michael Kerrisk

Nowadays, file changes in /proc/PID/mounts are notified differently

Exceptional condition for select(), (E)POLLPRI for (e)poll

Michael Kerrisk

Remove /proc/PID/mountstats description

This is a duplicate of information in proc(5).

Michael Kerrisk

Refer to new mount_namespaces(7) for information on mount namespaces

netlink.7

Andrey Vagin

Describe netlink socket options

Michael Kerrisk

Rework version information

(No changes in technical details.)

pid_namespaces.7

Michael Kerrisk

SEE ALSO: add namespaces(7)

unix.7

Michael Kerrisk

Move discussion on pathname socket permissions to DESCRIPTION

Michael Kerrisk

Expand discussion of socket permissions

Michael Kerrisk

Fix statement about permissions needed to connect to a UNIX domain socket

Read permission is not required (verified by experiment).

Michael Kerrisk

Clarify ownership and permissions assigned during socket creation

Michael Kerrisk [Carsten Grohmann]

Update text on socket permissions on other systems

At least some of the modern BSDs seem to check for write permission on a socket. (I tested OpenBSD 5.9.) On Solaris 10, some light testing suggested that write permission is still not checked on that system.

Michael Kerrisk

Note that umask / permissions have no effect for abstract sockets

W. Trevor King

Fix example code: 'ret' check after accept populates 'data_socket'

Michael Kerrisk

Move some abstract socket details to a separate subsection

Michael Kerrisk

Note that abstract sockets automatically disappear when FDs are closed

user_namespaces.7

Michael Kerrisk [Micha Zegan]

Clarify meaning of privilege in a user namespace

Having privilege in a user NS only allows privileged operations on resources governed by that user NS. Many privileged operations relate to resources that have no association with any namespace type, and only processes

with privilege in the initial user NS can perform those operations.

See https://bugzilla.kernel.org/show_bug.cgi?id=120671

Michael Kerrisk [Micha Zegan]

List the mount operations permitted by CAP_SYS_ADMIN

List the mount operations permitted by CAP_SYS_ADMIN in a noninitial users.

See https://bugzilla.kernel.org/show_bug.cgi?id=120671

Michael Kerrisk [Micha Zegan]

CAP_SYS_ADMIN allows mounting cgroup filesystems

See https://bugzilla.kernel.org/show_bug.cgi?id=120671

Michael Kerrisk

Clarify details of CAP_SYS_ADMIN and cgroup v1 mounts

With respect to cgroups version 1, CAP_SYS_ADMIN in the user namespace allows only *named* hierarchies to be mounted (and not hierarchies that have a controller).

Michael Kerrisk

Clarify CAP_SYS_ADMIN details for mounting FS_USERNS_MOUNT filesystems

Michael Kerrisk

Correct user namespace rules for mounting /proc

Michael Kerrisk

Describe a concrete example of capability checking

Add a concrete example of how the kernel checks capabilities in an associated user namespace when a process attempts a privileged operation.

Michael Kerrisk

Correct kernel version where XFS added support for user namespaces

Linux 3.12, not 3.11.

Michael Kerrisk

SEE ALSO: add ptrace(2)

SEE ALSO: add cgroup_namespaces(7)

utf-8.7:

Shawn Landden

Include RFC 3629 and clarify endianness which is left ambiguous

The endianness is suggested by the order the bytes are displayed, but the text is ambiguous.

==== Changes in man-pages-4.08 =====

Released: 2016-10-08, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

quotactl.2

Eugene Syromyatnikov [Michael Kerrisk]

Updated information regarding disk quota flags

Added information regarding DQF_SYS_FILE flag; updated definition of V1_DQF_RSQUASH, which has been defined privately and defined publicly as DQF_ROOT_SQUASH.

Eugene Syromyatnikov

Updated information regarding XFS-specific quotactl subcommands

Added information regarding structure definitions used for XFS-specific subcommands, updated flag constants, added information regarding ignored syscall arguments, added notes on usage of kernel UAPI header.

Eugene Syromyatnikov

Additions regarding project quotas

Added information regarding presence of project quotas.

bswap.3

Michael Kerrisk

New page documenting bswap_16(), bswap_32(), and bswap_64()

cgroups.7

Michael Kerrisk

Substantial rewrites, additions, and corrections.

Newly documented interfaces in existing pages

readv.2

Michael Kerrisk

Document the pwritev2() RWF_SYNC and RWF_DSYNC flags

proc.5

Michael Kerrisk

Document /proc/PID/seccomp

Jann Horn

Document /proc/[pid]/task/[tid]/children

Document the /proc/[pid]/task/[tid]/children interface from CRIU, and more importantly, document why it's usually not a good interface.

New and changed links

bswap_16.3

bswap_32.3

bswap_64.3

New link to new bswap.3

Global changes

Various pages

Michael Kerrisk

Fix section ordering

Various pages had sections in an order different from that prescribed in man-pages(7).

Various pages

Michael Kerrisk [Mike Frysinger]

Consistently use /proc/[pid] (not /proc/PID)

Various pages

Michael Kerrisk

Fix order of SEE ALSO entries

Entries should be ordered first by section, and then alphabetically within the section.

Various pages

Michael Kerrisk

Order ERRORS alphabetically

Various pages

Michael Kerrisk

Remove section number from page self reference

Fix places where pages refer to the function that they describe and include a section number in that reference. Such references cause some HTML-rendering tools to create self-references in the page.

A few pages

Michael Kerrisk

Eliminate groff "cannot adjust line" warnings

Changes to individual pages

pldd.1

Michael Kerrisk [Carlos O'Donnell]

Note gdb(1) command that can be used as a replacement for pldd

Taken from Carlos O'Donnell's suggestion in

https://sourceware.org/bugzilla/show_bug.cgi?id=18035#c2

Michael Kerrisk

BUGS: pldd has not worked since glibc 2.19

accept.2

Michael Kerrisk

Mention epoll(7) alongside poll()/select()

Michael Kerrisk

Demote discussion of DECNet to NOTES

DECNet ceased to be important long ago...

adjtimex.2

Nikola Forró

Fix kernel version references

chroot.2

Michael Kerrisk

Note user namespace requirements for CAP_SYS_CHROOT

clone.2

Keno Fischer [Josh Triplett]

Adjust syscall prototype and expand CLONE_SETTLS description

Michael Kerrisk [Josh Triplett, Josh Triplett]

Document raw syscall interfaces on various other architectures

Michael Kerrisk

Change types for 'ptid' and 'ctid' in syscall prototypes

These types changed from 'void *' to 'int *' back in Linux 3.8.

Michael Kerrisk

EINVAL is generated by glibc wrapper for NULL 'fn' or 'child_stack'

Clarify that this error is produced by the wrapper function, not

the underlying system call. In particular, the point is that the

raw system call can accommodate a NULL pointer for 'child_stack'.

Michael Kerrisk [Elliott Hughes]

Make the implications of CLONE_FILES more explicit

If CLONE_FILES is not set, the duplicated FDs nevertheless share

file offset and status flags via the open file description.

Michael Kerrisk

Mention kcmp() under notes

close.2

Michael Kerrisk

Add mention of the close-on-exec flag

Michael Kerrisk

Clarify discussion noting that close() does not flush buffer cache

epoll_wait.2

Mike Crowe

Clarify that the timeout is measured against CLOCK_MONOTONIC

execve.2

Michael Kerrisk

Mention use of 'environ' to access environment list

Michael Kerrisk

Note that real UID, real GID, and supplementary GIDs are unchanged

fanotify_init.2

Heinrich Schuchardt

Update BUGS information

fcntl.2

Michael Kerrisk

Note an important detail of F_SETOWN permission rules for signals

F_SETOWN records the caller's credentials at the time of the fcntl() call, and it is these saved credentials that are used for subsequent permission checks.

Michael Kerrisk

Make the description of the effect of close-on-exec a little clearer

Michael Kerrisk

Clarify that F_GETFD and F_GETFL return flags via the function result

fork.2

Michael Kerrisk

PID of new process also does not match any existing session ID

fsync.2

Michael Kerrisk

SEE ALSO: add pwritev(2)

Since Linux 4.7, pwritev() has flags related to I/O integrity completion.

getdomainname.2

Michael Kerrisk

Note user namespace requirements for CAP_SYS_ADMIN

getgroups.2

Michael Kerrisk

Note user namespace requirements for CAP_SETGID

gethostname.2

Michael Kerrisk

Note user namespace requirements for CAP_SYS_ADMIN

getrlimit.2

Michael Kerrisk

Note user namespace semantics for CAP_SYS_RESOURCE

getsid.2

Michael Kerrisk

Rework description to be somewhat clearer

Michael Kerrisk

Correct the definition of "session ID"

getunwind.2

Michael Kerrisk

Simplify text referring to vdso(7)

The detail given here is redundant, since this info is also in vdso(7).

kcmp.2

Michael Kerrisk

Add an example program

kill.2

Michael Kerrisk

Note the user namespace requirement for CAP_KILL

killpg.2

Michael Kerrisk

Refer reader to kill(2) for signal permission rules

mlock.2

Sebastian Andrzej Siewior

Document that fork() after mlock() may be a bad idea in a RT process

mmap.2

Jann Horn

Describe treatment of 'offset' for MAP_ANONYMOUS

Michael Kerrisk [Siward de Groot]

Small improvement to description of MAP_SHARED

See https://sourceware.org/bugzilla/show_bug.cgi?id=6887

msgctl.2

msgget.2

msgop.2

semctl.2

semget.2

semop.2

shmctl.2

shmget.2

shmop.2

Michael Kerrisk

Note the user namespace requirements for CAP_IPC_OWNER

open.2

Michael Kerrisk

Clarify user namespace capability requirements for O_NOATIME

Michael Kerrisk

NOTES: kcmp() can be used to test if two FDs refer to the same OFD

Michael Kerrisk

F2FS support for O_TMPFILE was added in Linux 3.16

Michael Kerrisk

Clarify the rules about how the group ID of a new file is determined

prctl.2

Michael Kerrisk

Refer to proc(5) for effects of dumpability on ownership of /proc/PID/*

Michael Kerrisk

ERRORS: Add EACCES error for PR_SET_SECCOMP-SECCOMP_MODE_FILTER

Michael Kerrisk

Simplify list of cases where "dumpable" attribute is reset

Michael Kerrisk

Note user namespace requirements for PR_CAPBSET_DROP CAP_SETPCAP

readlink.2

Michael Kerrisk [Ursache Vladimir]

Make example program handle links that report a size of zero

Some "magic" symlinks created by the kernel (e.g., those under /proc and /sys) report 'st_size' as zero. Modify the example program to handle that possibility.

Michael Kerrisk

Emphasize that truncation of returned buffer generates no error

readv.2

Michael Kerrisk [Christoph Hellwig]

Clarify that RWF_DSYNC and RWF_SYNC apply only to data being written

Michael Kerrisk

Add preadv2() and pwritev2() to NAME line

reboot.2

Michael Kerrisk

Note user namespace requirements around CAP_SYS_BOOT

rename.2

Michael Kerrisk [Tim Savannah]

Clarify that ERRORS may cause rename to fail (not to be nonatomic)

sched_setaffinity.2

Michael Kerrisk

Note user namespace requirements for CAP_SYS_NICE

seccomp.2

Michael Kerrisk

CAP_SYS_ADMIN is required only in caller's user namespace

select_tut.2

Peter Wu

Fix various issues in example program

seteuid.2

Michael Kerrisk

Note user namespace requirements for CAP_SETUID and CAP_SETGID

setgid.2

Michael Kerrisk

Note user namespace requirements for CAP_SETGID

setpgid.2

Michael Kerrisk

Add a reference to credentials(7)

setpgid.2

setsid.2

Michael Kerrisk

Relocate some text on sessions and sessions leaders

Some text that was in setpgid(2) is better placed in setsid(2).

setresuid.2

Michael Kerrisk

Note user namespace requirements for CAP_SETUID

setreuid.2

Michael Kerrisk

Note user namespace requirements for CAP_SETUID and CAP_SETGID

setsid.2

Michael Kerrisk

Refer to credentials(7) for details for details on controlling terminal

Refer to credentials(7) for details of how a session obtains a controlling terminal.

set_thread_area.2

Michael Kerrisk

Add get_thread_area() to NAME

setuid.2

Michael Kerrisk

Note user namespace requirements for CAP_SETUID

sigprocmask.2

Keno Fischer

Expand/clarify libc/kernel sigset_t difference

stat.2

Michael Kerrisk [Ursache Vladimir, Mats Wichmann]

Improve discussion of 'st_size' for /proc and /sys files

Michael Kerrisk

_BSD_SOURCE and _SVID_SOURCE no longer expose nanosecond timestamps

umask.2

Michael Kerrisk

Provide a rationale for the existence of /proc/PID/status 'Umask' field

wait.2

Michael Kerrisk

Remove erroneous statement that waitpid() is implemented via wait4()

There is a fallback to wait4(), but only if the kernel does
not provide a waitpid() system call.

bindresvport.3

rcmd.3

ip.7

Michael Kerrisk

Note user namespace requirements for CAP_NET_BIND_SERVICE

byteorder.3

Michael Kerrisk

SEE ALSO: add bswap(3)

dlopen.3

Michael Kerrisk

dlmopen() is still broken in glibc 2.24

endian.3

Michael Kerrisk

SEE ALSO: add bswap(3)

ffs.3

Michael Kerrisk [Stefan Tauner]

Correct feature test macro requirements

fmemopen.3

Michael Kerrisk [Rich Felker]

Remove bogus suggestion to use setbuffer()

getlogin.3

Michael Kerrisk

Update feature test macro requirements for cuserid()

getumask.3

Michael Kerrisk

Note that getumask() is still unavailable in glibc 2.24

Michael Kerrisk

Point to umask(2) for a thread-safe way to discover process's umask

mkstemp.3

Quentin Rameau

Fix `_POSIX_C_SOURCE` value for mkstemp()

The correct `_POSIX_C_SOURCE` value has always been 200809L,
not 200112L.

pthread_join.3

Michael Kerrisk [Mats Wichmann]

Note that the caller might do clean up after joining with a thread

Michael Kerrisk []

Clarify use of 'retval' pointer

resolver.3

Ray Bellis

Correct arguments to `res_ninit(res_state statep)`

strverscmp.3

Michael Kerrisk

Add an example program

wcstombs.3

Michael Kerrisk [Igor Liferenko]

`wcrtombs()` does not provide thread-safe interface to same functionality

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=741360>

core.5

Mike Frysinger [Michael Kerrisk]

Add more details for output paths and the crash handler

People sometimes assume that the crash handler runs in the same
context as the crashing process. They would be incorrect :).

proc.5

Mike Frysinger

Clarify the root symlink and mount namespaces

If the target process is in a different mount namespace, the root
symlink actually shows that view of the filesystem.

Michael Kerrisk [Mike Frysinger]

Expand discussion of `/proc/[pid]/root`

Add a shell example showing that `/proc/[pid]/root` is more
than a symlink. Based on an example provided by Mike Frysinger

in an earlier commit message.

Michael Kerrisk

Explain rules determining ownership of `/proc/PID/*` files
Describe the effect of the "dumpable" attribute on ownership
of `/proc/PID` files.

Michael Kerrisk

Note effect of 'suid_dumpable' on ownership of `/proc/PID` files

Michael Kerrisk

Refer to `ptrace(2)` for info on effect of `suid_dumpable` on ptraceability

Michael Kerrisk

Add reference to `core(5)` in discussion of 'suid_dumpable'

Michael Kerrisk

Note that 'suid_dumpable' mode 1 is insecure

Michael Kerrisk

Document `/proc/meminfo` '+ShmemHugePages' and 'ShmemPmdMapped' fields

Michael Kerrisk

Document `/proc/PID/status` 'RssAnon', 'RssFile', and 'RssShmem' fields

Michael Kerrisk

Document `/proc/PID/status` 'HugetlbPages' field

Michael Kerrisk [Zefram]

Clarify that `/proc/PID/statm` 'shared' field counts *resident* pages
See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=741360>

Michael Kerrisk

Add reference to `umask(2)` in discussion of `/proc/PID/status` 'Umask'

Michael Kerrisk

Clarify user namespace requirements for `/proc/sys/fs/protected_hardlinks`

Michael Kerrisk

Note changes to config option governing `/proc/[pid]/task/[tid]/children`

Michael Kerrisk

Clarify description of `/proc/PID/statm` 'lib' and 'dt' fields
These fields are always zero since Linux 2.6.

Namhyung Kim [Petr Cermak]

Add description of `CLEAR_REFS_MM_HIWATER_RSS`

Michael Kerrisk

Update example VM values in `/proc/PID/status`

capabilities.7

Michael Kerrisk

Add note about nosuid to file capabilities section

Michael Kerrisk

SEE ALSO: add `proc(5)`

Michael Kerrisk

SEE ALSO: add `setsid(2)` and `setpgid(2)`

glob.7

Michael Kerrisk [Arnaud Gaillard]

Clarify that syntactically incorrect patterns are left unchanged

packet.7

Michael Kerrisk

Clarify user namespace requirements for CAP_NET_RAW

pipe.7

Michael Kerrisk [Patrick McLean]

Document FIONREAD

raw.7

Michael Kerrisk

Clarify user namespace requirements for CAP_NET_RAW

Also remove mention of UID 0 as a method of creating a raw socket. As far as I can tell from reading the kernel source (net/ipv4/af_inet.c), this is not true.

socket.7

Michael Kerrisk

SIOCSPGRP: refer to fcntl(2) F_SETOWN for correct permission rules

The permission rules described for SIOCCPGRP are wrong. Rather than repeat the rules here, just refer the reader to fcntl(2), where the rules are described for F_SETOWN.

unix.7

Michael Kerrisk [Laurent Georget, Ivan Kharpalev]

Remove mention of recvmsg() from discussion of EPIPE error

See https://bugzilla.kernel.org/show_bug.cgi?id=137351

ld.so.8

Michael Kerrisk

Expand description of LD_DEBUG

Provide a list of the categories, and note that multiple categories can be specified.

Michael Kerrisk

Add glibc version for LD_USE_LOAD_BIAS

Michael Kerrisk

Clarify text describing whether secure-mode programs preload libraries

Michael Kerrisk

Remove discussion of environment variables understood by libc5

libc5 disappeared long ago, so cease cluttering up this page with those ancient details. Thus, remove discussion of the following environment variables: LD_AOUT_LIBRARY_PATH, LD_AOUT_PRELOAD, LD_KEEPPDIR, LD_NOWARN, and LDD_ARGV0.

Michael Kerrisk

Remove text with ancient libc4 and Linux libc details

Michael Kerrisk

Remove mention of "ELF only"

Drawing a distinction between ELF-only features versus a,out ceased to be relevant long ago, so cluttering the page

with "ELF-only" serves no purpose.

===== Changes in man-pages-4.09 =====

Released: 2016-12-12, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

pkey_alloc.2

Dave Hansen [Michael Kerrisk]

New page documenting pkey_alloc(2) and pkey_free(2)

pthread_getattr_default_np.3

Michael Kerrisk

New page documenting pthread_getattr_default_np(3) and pthread_setattr_default_np(3)

strfromd.3

Wainer dos Santos Moschetta

New page documenting strfromd(3), strfromf(3), and strfroml(3)

The ISO/IEC TS 18661-1 specifies the strfrom() class
of functions that convert a float-point value to string.

fuse.4

Keno Fischer [Michael Kerrisk]

New page describing /dev/fuse

This is my writeup of a basic description of /dev/fuse after
playing with it for a few hours today. It is of course woefully
incomplete, and since I neither have a use case nor am working
on this code, I will not be in a position to expand it in the
near future. However, I'm hoping this could still serve as a
handy reference for others looking at this interface.

[mtk: Notwithstanding the incompleteness of this page,
it's a good base for future extension.]

tmpfs.5

Michael Kerrisk

New page documenting the tmpfs filesystem

pkeys.7

Dave Hansen [Michael Kerrisk]

New page with overview of Memory Protection Keys

random.7

Michael Kerrisk [Theodore Ts'o, Nikos Mavrogiannopoulos, Laurent Georget]

New page providing an overview of interfaces for obtaining randomness

Contains material extracted from getrandom(2) and random(4),
as well as new material.

sock_diag.7

Pavel Emelyanov, Dmitry V. Levin

New page documenting NETLINK_SOCK_DIAG interface

close.2

getpriority.2

nice.2

timer_create.2

timerfd_create.2

random.4

elf.5

proc.5

sched.7

Various authors

These pages also saw substantial updates, as described under
"Changes to individual pages".

Newly documented interfaces in existing pages

mmap.2

Michael Kerrisk

Add (much) more detail on MAP_GROWSDOWN

mprotect.2

Dave Hansen

Document the new pkey_mprotect() system call

Eugene Syromyatnikov

Document PROT_SEM, PROT_SAO, PROT_GROWSUP, and PROT_GROWSDOWN

prctl.2

Eugene Syromyatnikov

Document PR_SET_FP_MODE and PR_GET_FP_MODE

perf_event_open.2

Vince Weaver

PERF_RECORD_SWITCH support

Linux 4.3 introduced two new record types for recording context

switches: PERF_RECORD_SWITCH and PERF_RECORD_SWITCH_CPU_WIDE.

Vince Weaver

Add PERF_SAMPLE_BRANCH_CALL branch sample type

Vince Weaver

PERF_SAMPLE_BRANCH_IND_JUMP branch_sample_type

Linux 4.2 added a new branch_sample_type: PERF_SAMPLE_BRANCH_IND_JUMP

Vince Weaver

Document PERF_RECORD_MISC_PROC_MAP_PARSE_TIMEOUT

Vince Weaver

Document sample_max_stack and /proc/sys/kernel/perf_event_max_stack

Linux 4.8 added a new sample_max_stack parameter, as well as

/proc/sys/kernel/perf_event_max_stack which limits it and a new

E_OVERFLOW error return.

Dave Hansen

PERF_RECORD_LOST_SAMPLES record type

Linux 4.2 added a new record type: PERF_RECORD_LOST_SAMPLES

It is generated when hardware samples (currently only Intel PEBS)

are lost.

ptrace.2

Michael Kerrisk

Document PTRACE_SECCOMP_GET_FILTER

Michael Kerrisk

Document PTRACE_GET_THREAD_AREA and PTRACE_SET_THREAD_AREA

namespaces.7

Michael Kerrisk [Eric W. Biederman]

Document the NS_GET_USERNS and NS_GET_PARENT ioctl() operations

sched.7

Michael Kerrisk [Mike Galbraith]

Document the autogroup feature

Includes documenting autogroup nice value

Michael Kerrisk

Autogrouping breaks traditional semantics of nice in many cases

When autogrouping is enabled (the default in many distros)

there are many traditional use cases where the nice value

ceases to have any effect.

Michael Kerrisk

Add a subsection on nice value and group scheduling

New and changed links

killpg.2

Michael Kerrisk

New link to relocated killpg(3) page

pkey_free.2

Michael Kerrisk

New link to new pkey_alloc(2) page

pkey_mprotect.2

Michael Kerrisk

New link to mprotect(2)

pthread_setattr_default_np.3

Michael Kerrisk

New link to new pthread_getattr_default_np.3

strfromf.3

Wainer dos Santos Moschetta

New link to strfromd(3)

strfroml.3

Wainer dos Santos Moschetta

New link to strfromd(3)

Global changes

Various pages

Michael Kerrisk

Remove ancient libc4 and libc5 details

It's nearly 20 years now since Linux libc went away.

Remove some ancient details from the pages.

Various pages

Michael Kerrisk

Add cross references to new tmpfs(5) page

Various pages

Michael Kerrisk

Change section number from 2 to 3 in killpg() references

Changes to individual pages

accept.2

Michael Kerrisk

Remove editorializing comments about 'socklen_t'

Michael Kerrisk

Simplify the discussion of 'socklen_t'

We don't really need to list the old OSes in this discussion.

adjtimex.2

clock_getres.2

gettimeofday.2

Michael Kerrisk

SEE ALSO: add hwclock(8)

bind.2

connect.2

getpeername.2

getsockname.2

getsockopt.2

Michael Kerrisk

Replace discussion of 'socklen_t' with reference to accept(2)

The discussion of 'socklen_t' editorializes and is repeated across several pages. Replace it with a reference to accept(2), where some details about this type are provided.

chmod.2

Michael Kerrisk

SEE ALSO: add chmod(1)

chown.2

Michael Kerrisk

SEE ALSO: add chgrp(1) and chown(1)

chroot.2

Michael Kerrisk

SEE ALSO: add chroot(1)

clone.2

Michael Kerrisk

The CLONE_*_SETTID operations store TID before return to user space

CLONE_PARENT_SETTID and CLONE_CHILD_SETTID store the new TID before clone() returns to user space

close.2

Michael Kerrisk [Daniel Wagner]

Rework and greatly extend discussion of error handling

Further clarify that an error return should be used only for diagnostic or remedial purposes.

Michael Kerrisk

Other UNIX implementations also close the FD, even if reporting an error

Looking at some historical source code suggests that the "close() always closes regardless of error return"

behavior has a long history, predating even POSIX.1-1990.

Michael Kerrisk

Note that future POSIX plans to require that the FD is closed on error

See <http://austingroupbugs.net/view.php?id=529#c1200>.

Michael Kerrisk

Clarify the variation in EINTR behavior per POSIX and other systems

fallocate.2

Darrick J. Wong

Document behavior with shared blocks

Note that FALLOC_FL_UNSHARE may use CoW to unshare blocks to guarantee that a disk write won't fail with ENOSPC.

fanotify_mark.2

Heinrich Schuchardt

Mention FAN_Q_OVERFLOW

To receive overflow events it is necessary to set this bit in fanotify_mark().

fcntl.2

Michael Kerrisk

F_GETPIPE_SZ allocates next power-of-2 multiple of requested size

Add some detail about current implementation, since this helps the user understand the effect of the user pipe limits added in Linux 4.5 (described in pipe(7)).

Michael Kerrisk

Add EPERM that occurs for F_SETPIPE_SZ when user pipe limit is reached

fideduperange.2

Darrick J. Wong [Omar Sandoval]

Fix the discussion of maximum sizes

Fix the discussion of the limitations on the dest_count and src_length parameters to the fideduperange ioctl() to reflect what's actually in the kernel.

fsync.2

Michael Kerrisk

SEE ALSO: add fileno(3)

fileno(3) is useful if one is combining fflush(3)/fclose(3) and fsync(2).

Michael Kerrisk

SEE ALSO: add fflush(3)

getgroups.2

Andrew Clayton

FTM requirements fix for setgroups(2)

gethostname.2

Michael Kerrisk

SEE ALSO: add hostname(1)

get_mempolicy.2

Michael Kerrisk

Note that 'addr' must be NULL when 'flags' is 0

getpriority.2

Michael Kerrisk

Warn that autogrouping voids the effect of 'nice' in many cases

Refer the reader to sched(7) for the details.

Michael Kerrisk

Expand discussion of getpriority() return value

Michael Kerrisk

The nice value supplied to setpriority() is clamped

Note that the nice value supplied to setpriority() is clamped to the permitted range.

Michael Kerrisk

Improve description of setpriority() return value

getpriority.2

sched.7

Michael Kerrisk

Move nice value details from getpriority(2) to sched(7)

Centralizing these details in sched(7) is more logical.

getrandom.2

random.4

Michael Kerrisk

Consolidate and improve discussion on usage of randomness

Currently, recommendations on how to consume randomness are spread across both getrandom(2) and random(4) and the general opinion seems to be that the text in getrandom(2) does a somewhat better job. Consolidate the discussion to a single page (getrandom(2)) and address some of the concerns expressed about the existing text in random(4).

[Some of this text ultimately made its way into the new random(7) page.]

getrandom.2

Michael Kerrisk

Remove material incorporated into random(7)

Michael Kerrisk

Note advantages of fact that getrandom() doesn't use file descriptors

Michael Kerrisk

Clarify that getrandom() is not "reading" from /dev/{random,urandom}

getrlimit.2

Michael Kerrisk

Refer to sched(7) in discussion of RLIMIT_RTPRIO and RLIMIT_RTTIME

Michael Kerrisk

Describe the range of the RLIMIT_NICE limit

Michael Kerrisk

Refer to sched(7) in the discussion of RLIMIT_NICE

Michael Kerrisk

SEE ALSO: add credentials(7)

ioctl_ficlone.2

ioctl_fideduperange.2

Darrick J. Wong

Clarify the behavior of the FIDEDUPERANGE ioctl

kill.2

Michael Kerrisk

SEE ALSO: add kill(1)

mbind.2

Michael Kerrisk [Christoph Lameter]

Memory policy is a per-thread attribute, not a per-process attribute

mbind.2

set_mempolicy.2

Piotr Kwapulinski [Christoph Lameter, Michael Kerrisk]

Add MPOL_LOCAL NUMA memory policy documentation

mount.2

Michael Kerrisk

SEE ALSO: add mountpoint(1)

mprotect.2

Michael Kerrisk

CONFORMING TO: note that pkey_mprotect() is Linux-specific

nice.2

Michael Kerrisk

Warn that autogrouping voids the effect of 'nice' in many cases

Michael Kerrisk

CONFORMING TO: Remove an ancient SVr4 detail on errno values

Michael Kerrisk

Rework discussion of nice() return value and standards conformance

Make the text a little clearer. In particular, clarify that the raw system call (still) returns 0 on success.

Michael Kerrisk

Clarify the range of the nice value, and note that it is clamped

Michael Kerrisk

Add mention of RLIMIT_NICE

Michael Kerrisk

Move discussion of handling the -1 success return to RETURN VALUE

This detail was rather hidden in NOTES. Also, rework the text a little.

Michael Kerrisk

Clarify that nice() changes the nice value of the calling *thread*

Michael Kerrisk

Add "C library/kernel differences" subsection heading

Michael Kerrisk

Add reference to sched(7) for further details on the nice value

open.2

Michael Kerrisk

ubifs supports O_TMPFILE starting with Linux 4.9

Michael Kerrisk

Document ENOMEM that occurs when opening FIFO because of pipe hard limit

perf_event_open.2

Vince Weaver

Add cycles field in LBR records

Linux 4.3 added a cycles field to the PERF_SAMPLE_BRANCH_STACK last branch records.

Vince Weaver

Update time_shift sample code

Linux 4.3 improved the accuracy of the clock/ns conversion routines.

Michael Kerrisk

Clarify the use of signals for capturing overflow events

pipe.2

Michael Kerrisk

Add ENFILE error for user pipe hard limit reached

prctl.2

Eugene Syromyatnikov

Some additional details regarding the PR_GET_UNALIGNED operation

Eugene Syromyatnikov

Note the output buffer size for PR_GET_TID_ADDRESS operation on x32/n32

Michael Kerrisk

Remove numeric definitions of PR_FP_MODE_FR and PR_FP_MODE_FRE bits

ptrace.2

Keno Fischer

Document the behavior of PTRACE_SYSEMU stops

Keno Fischer

Expand documentation PTRACE_EVENT_SECCOMP traps

In Linux 4.8, the order of PTRACE_EVENT_SECCOMP and syscall-entry-stops was reversed. Document both behaviors and their interaction with the various forms of restart.

quotactl.2

Eugene Syromyatnikov

Describe Q_XQUOTASYNC, which is present but no-op in recent kernels

reboot.2

Wang Long

Note errors for invalid commands inside a PID namespace

sched_setattr.2

Michael Kerrisk

Fix cross reference for further info on the nice value

The information moved from getpriority(2) to sched(7).

sched_setscheduler.2

Michael Kerrisk [Daniel Berrange]

Mention SCHED_DEADLINE

Give the reader a clue that there is another policy

available that can't be set via sched_setscheduler(2).

seccomp.2

Jann Horn

Document changed interaction with ptrace

Before kernel 4.8, the seccomp check will not be run again

after the tracer is notified. Fixed in kernel 4.9.

Michael Kerrisk

NOTES: mention ptrace(PTRACE_SECCOMP_GET_FILTER) to dump seccomp filters

set_mempolicy.2

Michael Kerrisk

Reformat list of modes

setsid.2

Michael Kerrisk

Improve wording of text on calling setsid() after fork()+_exit()

Michael Kerrisk

SEE ALSO: add sched(7)

List sched(7), because setsid(2) is part of the machinery of autogrouping.

sigaction.2

Dave Hansen

Further documentation of SEGV_PKUERR

signalfd.2

Michael Kerrisk

Document ssi_addr_lsb field of signalfd_siginfo

symlink.2

Michael Kerrisk

SEE ALSO: add namei(1)

sync_file_range.2

Michael Kerrisk

Fix description for ESPIPE error

A file descriptor can't refer to a symbolic link.

syscalls.2

Michael Kerrisk

Add pkey_alloc(), pkey_free(), and pkey_mprotect()

New system calls in Linux 4.9.

Michael Kerrisk

Add ppc_swapcontext(2)

timer_create.2

Michael Kerrisk

Document CLOCK_BOOTTIME

Michael Kerrisk

Document CLOCK_REALTIME_ALARM and CLOCK_BOOTTIME_ALARM

timerfd_create.2

Michael Kerrisk

Document CLOCK_BOOTTIME, CLOCK_REALTIME_ALARM, and CLOCK_BOOTTIME_ALARM

Michael Kerrisk

Document TFD_TIMER_CANCEL_ON_SET

Michael Kerrisk

Rework discussion on relative and absolute timers

unlink.2

Michael Kerrisk

SEE ALSO: add unlink(2)

utime.2

utimensat.2

Michael Kerrisk

SEE ALSO: add touch(1)

wait.2

Michael Kerrisk

On some architectures, waitpid() is a wrapper that calls wait4().

atof.3

Wainer dos Santos Moschetta

SEE ALSO: add strfromd(3)

ctime.3

Michael Kerrisk

Add ERRORS section

Michael Kerrisk

RETURN VALUE: describe return values more explicitly

errno.3

Michael Kerrisk [Igor Liferenko]

Add glibc error text for EILSEQ

fclose.3

fflush.3

Michael Kerrisk

SEE ALSO: add fileno(2)

getlogin.3

Michael Kerrisk

Remove deprecated `_REENTRANT` from FTM requirements for `getlogin_r()`

Michael Kerrisk

SEE ALSO: add `logname(1)`

isalpha.3

Michael Kerrisk

Note circumstances where 'c' must be cast to 'unsigned char'

killpg.3

Michael Kerrisk

Move `killpg.2` from section to section 3

mallopt.3

Michael Kerrisk [Siddhesh Poyarekar]

Document 0 as default value of `M_ARENA_MAX` and explain its meaning

Michael Kerrisk

Improve description of `M_ARENA_TEST`

Michael Kerrisk

Document default value for `M_ARENA_TEST`

Michael Kerrisk

Note default value of `M_PERTURB`

mbsnrtowcs.3

Michael Kerrisk [Igor Liferenko]

Note behavior of `mbsnrtowcs()` for an incomplete character

Note the behavior of `mbsnrtowcs()` when an incomplete character is found at end of the input buffer.

mbstowcs.3

wcstombs.3

Michael Kerrisk [Igor Liferenko]

Improve language relating to "initial state"

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=839705>

mbstowcs.3

Michael Kerrisk [Igor Liferenko]

Add missing include to example program

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=845172>

mq_close.3

Michael Kerrisk

DESCRIPTION: add reference to mq_notify(3)

mq_open.3

Eugene Syromyatnikov

Clarification regarding usage of mq_flags attribute in mq_open()

mq_receive.3

mq_send.3

Eugene Syromyatnikov

Clarification regarding reasons behind EBADF

printf.3

Wainer dos Santos Moschetta

SEE ALSO: add strfromd(3)

pthread_attr_init.3

Michael Kerrisk

SEE ALSO: add pthread_setattr_default_np(3)

pthread_create.3

Michael Kerrisk

SEE ALSO: add pthread_setattr_default_np(3)

ptsname.3

Michael Kerrisk

Note that ptsname_r() is proposed for future inclusion in POSIX.1

Michael Kerrisk

CONFORMING TO:: clarify that only ptsname() is standardized (so far)

remainder.3

Michael Kerrisk

Note fix to remainder(nan(""), 0) handling

The bug https://www.sourceware.org/bugzilla/show_bug.cgi?id=6779

has been fixed in glibc 2.15.

Michael Kerrisk

Document fixes for EDOM handling for range errors

The bug http://sources.redhat.com/bugzilla/show_bug.cgi?id=6783

was fixed in glibc 2.15.

setjmp.3

Michael Kerrisk

_BSD_SOURCE must be *explicitly* defined to get BSD setjmp() semantics

strtod.3

Wainer dos Santos Moschetta

SEE ALSO: add strfromd(3)

tgamma.3

Michael Kerrisk

Document fixes to give ERANGE for underflow range error

The bug https://www.sourceware.org/bugzilla/show_bug.cgi?id=6810
was fixed in glibc 2.19.

timegm.3

Michael Kerrisk

Add ERRORS section

Michael Kerrisk [Vincent Lefevre]

Add RETURN VALUE section

tmpnam.3

Michael Kerrisk

Properly document tmpnam_r(3)

toupper.3

Michael Kerrisk

Note circumstances where 'c' must be cast to 'unsigned char'

ttyname.3

Michael Kerrisk

SEE ALSO: add tty(1)

console_ioctl.4

Michael Kerrisk

Add brief descriptive text for KDGKBMODE modes

Miroslav Koskar

Add K_OFF keyboard mode

random.4

Michael Kerrisk

Add reference to new random(7) page

Michael Kerrisk

Rework formatting of /proc interfaces

Make the information easier to parse by formatting the file
descriptions as hanging lists. No significant content changes.

Nikos Mavrogiannopoulos [Laurent Georget]

Provide a more accurate description of /dev/urandom

This documents the "property" of /dev/urandom of being able to

serve numbers prior to pool being initialized, and removes any suggested usages of /dev/random which are disputable (i.e., one-time pad). Document the fact /dev/random is only suitable for applications which can afford indeterminate delays since very few applications can do so. Smooth the alarming language about a theoretical attack, and mention that its security depends on the cryptographic primitives used by the kernel, as well as the total entropy gathered.

Michael Kerrisk [Laurent Georget, Theodore Ts'o]

Improve discussion of /dev/urandom, blocking reads, and signals
The text currently states that O_NONBLOCK has no effect for /dev/urandom, which is true. It also says that reads from /dev/urandom are nonblocking. This is at the least confusing. If one attempts large reads (say 10MB) from /dev/urandom there is an appreciable delay, and interruption by a signal handler will result in a short read. Amend the text to reflect this.

elf.5

Mike Frysinger

Add subsection headers at major points
The current pages dumps all the content into one big DESCRIPTION with no real visual break up between logically independent sections. Add some subsection headers to make it easier to read and scan.

Mike Frysinger

Document notes
Document the Elf{32,64}_Nhdr structure, the sections/segments that contain notes, and how to interpret them. I've been lazy and only included the GNU extensions here, especially as others are not defined in the elf.h header file as shipped by glibc.

filesystems.5

Michael Kerrisk

SEE ALSO: add fuse(4)

proc.5

Dave Hansen

Describe new ProtectionKey 'smaps' field

Michael Kerrisk

Add example ProtectionKey output for 'smaps' file

Michael Kerrisk

Add pointers to sched(7) for autogroup files
sched(7) describes /proc/sys/kernel/sched_autogroup_enabled and /proc/PID/autogroup.

Michael Kerrisk

Add /proc/sys/fs/pipe-user-pages-`{hard,soft}` entries

Michael Kerrisk

Improve description of the KernelPageSize and MMUPageSize 'smaps' fields

Michael Kerrisk

Rework 'smaps' ProtectionKey text and add some details

Michael Kerrisk

Mention lslocks(8) in discussion of /proc/locks

Michael Kerrisk

Describe Shmem field of /proc/meminfo

Michael Kerrisk

Rework 'smaps' VmFlags text, and add kernel version and example output

proc.5

pipe.7

Michael Kerrisk

Move /proc/sys/fs/pipe-max-size content from proc(5) to pipe(7)

resolv.conf.5

Carlos O'Donnell [Florian Weimer]

Timeout does not map to resolver API calls

utmp.5

Michael Kerrisk

SEE ALSO: add users(1)

capabilities.7

Michael Kerrisk

CAP_SYS_ADMIN governs ptrace(2) PTRACE_SECCOMP_GET_FILTER

Michael Kerrisk

CAP_SYS_ADMIN allows privileged ioctl() operations on /dev/random

cgroups.7

Michael Kerrisk

Add details on 'cpu' CFS bandwidth control

credentials.7

Michael Kerrisk

SEE ALSO: add setpriv(1)

Michael Kerrisk

SEE ALSO: add shadow(5)

feature_test_macros.7

Michael Kerrisk [Zack Weinberg]

Note that _REENTRANT and _THREAD_SAFE are now deprecated

Michael Kerrisk

Note that "cc -pthread" defines _REENTRANT

inotify.7

Michael Kerrisk

Note a subtlety of event generation when monitoring a directory

libc.7

Michael Kerrisk

Add a note on why glibc 2.x uses the soname libc.so.6

Michael Kerrisk

Add a few historical details on Linux libc4 and libc5

Just for historical interest. Details taken from

<http://www.linux-m68k.org/faq/glibcinfo.html>.

mdoc.7

Michael Kerrisk

Add a cross-reference to groff_mdoc(7)

mount_namespaces.7

Michael Kerrisk

SEE ALSO: add user_namespaces(7)

mount_namespaces.7

user_namespaces.7

Michael Kerrisk

Migrate subsection on mount restrictions to mount_namespaces(7)

This section material in the user_namespaces(7) page was written before the creation of the mount_namespaces(7) manual page.

Nowadays, this material properly belongs in the newer page.

netlink.7

Dmitry V. Levin

Document NETLINK_INET_DIAG rename to NETLINK_SOCK_DIAG

Dmitry V. Levin

Add references to sock_diag(7)

pid_namespaces.7

Michael Kerrisk

Refer to namespaces(7) for information about NS_GET_PARENT

pipe.7

Michael Kerrisk, Vegard Nossum [Vegard Nossum]

Document /proc files controlling memory usage by pipes

Document /proc/sys/fs/pipe-max-size and /proc/sys/fs/pipe-user-pages-`{soft,hard}`.

Michael Kerrisk

Document pre-Linux 4.9 bugs in pipe limit checking

sched.7

Michael Kerrisk

Add a new introductory paragraph describing the nice value

Michael Kerrisk

Add more precise details on CFS's treatment of the nice value

Michael Kerrisk

Mention RLIMIT_NICE in the discussion of the nice value

Michael Kerrisk

NOTES: mention cgroups CPU controller

Michael Kerrisk

Add introductory sentence mentioning CFS scheduler

Michael Kerrisk

Add nice(2), getpriority(2), and setpriority(2) to API list

Michael Kerrisk

Make it clearer that SCHED_OTHER is always scheduled below real-time

Michael Kerrisk

Give the page a more generic NAME

The page isn't just about APIs.

standards.7

Michael Kerrisk

POSIX.1-2016 (POSIX.1-2008 TC2) has now been released

symlink.7

Michael Kerrisk

SEE ALSO: add namei(1)

uri.7

Jakub Wilk

Use "example.com" as example domain

user_namespaces.7

Michael Kerrisk

Add reference to namespaces(7) for NS_GET_USERNS operation

Michael Kerrisk

Add reference to namespaces(7) for NS_GET_PARENT operation

==== Changes in man-pages-4.10 =====

Released: 2017-03-13, Paris

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

add_key.2

Michael Kerrisk [Eugene Syromyatnikov, David Howells]

Major improvements and additions

The page has doubled in length.

ioctl_iflags.2

Michael Kerrisk

New page describing inode flags and ioctl() operations

ioctl_ns.2

Michael Kerrisk

New page created by splitting ioctl(2) operations out of namespaces(7)

keyctl.2

Michael Kerrisk, Eugene Syromyatnikov [David Howells, Mat Martineau]

A vast number of additions and improvements

The page has gone from somewhat over 100 lines to well over 1000 lines and now more or less documents the complete interface provided by this system call.

getentropy.3

Michael Kerrisk

New page documenting getentropy(3)

getentropy(3) is added to glibc in version 2.25.

keyrings.7

David Howells

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces, it makes sense to have it as part of man-pages, rather than the keyutils package.

Michael Kerrisk [Eugene Syromyatnikov, David Howells]

Very many additions and improvements

Michael Kerrisk

Document /proc/keys

Michael Kerrisk

Document /proc/sys/kernel/keys/persistent_keyring_expiry

Michael Kerrisk

Document /proc/key-users

Michael Kerrisk

Document /proc/sys/kernel/keys/gc_delay

Michael Kerrisk

Document /proc files that define key quotas

persistent-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces, it makes sense to have it as part of man-pages, rather

than the keyutils package.

Michael Kerrisk

Various clean-ups and additions

process-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces, it makes sense to have it as part of man-pages, rather than the keyutils package.

Michael Kerrisk

Various additions and improvements

request_key.2

Michael Kerrisk, Eugene Syromyatnikov [David Howells]

Very many additions and improvements

The page is now three times its former length.

session-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces, it makes sense to have it as part of man-pages, rather than the keyutils package.

Michael Kerrisk

Various reworking and additions

signal-safety.7

Michael Kerrisk

New page created by migrating the signal-safety discussion from signal(7). Along the way some more details got added.

Michael Kerrisk [KASAKI Motohiro]

Note async-signal-safety problems caused by pthread_atfork()

See https://bugzilla.kernel.org/show_bug.cgi?id=25292

Michael Kerrisk [KASAKI Motohiro]

Note glibc deviations from POSIX requirements

See https://bugzilla.kernel.org/show_bug.cgi?id=25292

thread-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces, it makes sense to have it as part of man-pages, rather than the keyutils package.

Michael Kerrisk

Various rewordings and additions

user-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces,
it makes sense to have it as part of man-pages, rather
than the keyutils package.

Michael Kerrisk

Various reworking and improvements

user-session-keyring.7

Michael Kerrisk

New page (written by David Howells) adopted from keyutils

Since this page documents kernel-user-space interfaces,
it makes sense to have it as part of man-pages, rather
than the keyutils package.

Michael Kerrisk

Various rewordings and additions

Newly documented interfaces in existing pages

bzero.3

Michael Kerrisk

Document `explicit_bzero()` (new in glibc 2.25)
Also, reword the description of `bzero` somewhat.

proc.5

Michael Kerrisk

Document `/proc/sys/vm/user_reserve_kbytes`

Michael Kerrisk

Document `/proc/sys/vm/admin_reserve_kbytes`

Michael Kerrisk

Document `/proc/sys/fs/mount-max`

Michael Kerrisk

Document `/proc/PID/status` 'NoNewPrivs' field

New and changed links

explicit_bzero.3

Michael Kerrisk

New link to `bzero.3`

Changes to individual pages

chmod.2

Michael Kerrisk

ERRORS: add EPERM error for immutable/append-only file

chown.2

Michael Kerrisk

ERRORS: add EPERM error for immutable/append-only file

chroot.2

Michael Kerrisk

SEE ALSO: add switch_root(8)

clock_getres.2

Michael Kerrisk

Note POSIX.1 requirements re relative time services and CLOCK_REALTIME

clone.2

Michael Kerrisk

clone() does not execute fork handlers

execve.2

Michael Kerrisk

Rework text describing when effective IDs aren't transformed by execve()

Michael Kerrisk

File capabilities can be ignored for the same reasons as set-UID/set-GID

Michael Kerrisk

The 'no_new_privs' bit inhibits transformations of the effective IDs

fork.2

Michael Kerrisk

cgroup PIDs controller may also be trigger for EAGAIN error

fsync.2

Michael Kerrisk

SEE ALSO: add posix_fadvise(2)

getrandom.2

Michael Kerrisk

Remove getentropy(3) details and defer to new getentropy(3) page

Michael Kerrisk

Starting with glibc 2.25, getrandom() is now declared in <sys/random.h>

Michael Kerrisk

glibc support was added in version 2.25

getrlimit.2

Michael Kerrisk

Document role of RLIMIT_NOFILE for FD passing over UNIX sockets

getxattr.2

listxattr.2

Andreas Gruenbacher

Document E2BIG errors

inotify_add_watch.2

Michael Kerrisk

Note "inode" as a synonym for "filesystem object"

Consistent with clarifications just made in inotify(7).

ioctl.2

Michael Kerrisk

SEE ALSO: add ioctl_ns(2), ioctl_iflags(2)

ioctl_fat.2

Brian Masney

Correctly reference volume ID instead of volume label

kcmp.2

Michael Kerrisk

Mention the clone(2) flags relating to various kcmp() 'type' values

Michael Kerrisk

KCMP_FILE: note reasons why FDs may refer to same open file description

link.2

Michael Kerrisk

When using linkat() AT_EMPTY_PATH, 'olddirfd' must not be a directory

Michael Kerrisk

ERRORS: add EPERM for immutable/append-only files

Michael Kerrisk

Note limits where EMLINK is encountered on ext4 and Btrfs

listxattr.2

Michael Kerrisk

Eliminate extra E2BIG error text

Andreas' patch added a second description of E2BIG that

was (mostly) more detailed than the existing text. Combine

the two texts.

lseek.2

Michael Kerrisk

O_APPEND overrides the effect of lseek() when doing file writes

Michael Kerrisk

Remove ancient info about whence values and return values on old systems

Michael Kerrisk

Remove slightly bogus advice about race conditions

The page already (by now) contains a reference to open(2)

for a discussion of open file descriptions. Leave it at that,

since the reader can then deduce how things work.

madvise.2

Michael Kerrisk

Note that `madvise()` is generally about improving performance

mbind.2

Krzysztof Kulakowski [Michael Kerrisk]

Update `MPOL_BIND` description

The behavior of `MPOL_BIND` changed in Linux 2.6.26.

mincore.2

Michael Kerrisk

SEE ALSO: `add_madvise(2)`, `posix_fadvise(2)`, `posix_madvise(3)`

mlock.2

Michael Kerrisk

Note pre-4.9 bug in `RLIMIT_MEMLOCK` accounting for overlapping locks

Michael Kerrisk

SEE ALSO: `add_mincore(2)`

mmap.2

Michael Kerrisk

`mincore(2)` can be used to discover which pages of a mapping are resident

mount.2

Michael Kerrisk [Rob Landley]

Refer to `mount_namespaces(7)` for details of default propagation type

nanosleep.2

Michael Kerrisk

Describe "creeping sleep" problem

`nanosleep()` has a problem if used in a program that catches signals and those signals are delivered at a very high rate.

Describe the problem, and note that `clock_nanosleep(2)` provides a solution.

Michael Kerrisk

BUGS: explicitly note that the Linux 2.4 bug was fixed in Linux 2.6

open.2

Michael Kerrisk

Make it clear that `O_APPEND` implies atomicity

Michael Kerrisk

Clarify distinction between file creation flags and file status flags

Michael Kerrisk

Note ambiguity of `ELOOP` error when using `O_NOFOLLOW`

Michael Kerrisk

Restructure `O_NOFOLLOW` text for easier parsing

Michael Kerrisk

Clarify that O_NOFOLLOW is now in POSIX

poll.2

select.2

Nicolas Biscos

Add a reference to the sigset discussion in sigprocmask(2)

A little while back, I added a note to sigprocmask.2 that discussed the difference between the libc's and the kernel's sigset_t structures. I added that note, because I saw this being done wrong in a tool tracing system calls (causing subtle bugs). As it turns out, the same bugs existed for ppoll and pselect, for the same reason. I'm hoping by adding the reference here, future writers of similar tools will find that discussion and not make the same mistake.

posix_fadvise.2

Michael Kerrisk

Mention /proc/sys/vm/drop_caches

It may be helpful for the reader of this page to know about /proc/sys/vm/drop_caches.

Michael Kerrisk

Reorganize some text

Details for various flags were hidden under NOTES. Move them to DESCRIPTION, to make the details more obvious.

Michael Kerrisk

One can use open(2) + mmap(2) + mincore(2) as a 'fincore'

Note that open(2) + mmap(2) + mincore(2) can be used to get a view of which pages of a file are currently cached.

Michael Kerrisk [Maik Zumstrull]

Note that POSIX_FADV_DONTNEED *may* try to write back dirty pages

Michael Kerrisk

SEE ALSO: mincore(2)

prctl.2

Michael Kerrisk

Clarify that the ambient capability set is per-thread

Keno Fischer

Be more precise in what causes dumpable to reset

Michael Kerrisk

The no_new_privs setting is per-thread (not per-process)

Michael Kerrisk

Mention /proc/PID/status 'NoNewPrivs' field

Michael Kerrisk

Add reference to seccomp(2) in discussion of PR_SET_NO_NEW_PRIVS

ptrace.2

Omar Sandoval

Clarify description of PTRACE_O_EXITKILL

read.2

Michael Kerrisk [Kai NODA]

Rework text in DESCRIPTION that talks about limits for 'count'

See https://bugzilla.kernel.org/show_bug.cgi?id=86061

Michael Kerrisk [Steven Luo]

Remove crufty text about EINTR and partial read

Remove bogus text saying that POSIX permits partial read to return -1/EINTR on interrupt by a signal handler.

That statement already ceased to be true in SUSv1 (1995)!

See https://bugzilla.kernel.org/show_bug.cgi?id=193111

readv.2

Michael Kerrisk

Remove generic advice about mixing stdio and syscalls on same file

There is nothing specific to readv()/writev() about this advice.

recv.2

Michael Kerrisk [Vincent Bernat]

Remove duplicate paragraph

man-pages-1.34 included changes that duplicated an existing paragraph. Remove that duplicate.

Michael Kerrisk

SEE ALSO: add ip(7), ipv6(7), tcp(7), udp(7), unix(7)

remap_file_pages.2

Michael Kerrisk

remap_file_pages() has been replaced by a slower in-kernel emulation

send.2

Michael Kerrisk

SEE ALSO: add ipv6(7), socket(7), unix(7)

setxattr.2

Michael Kerrisk

ERRORS: add EPERM for immutable/append-only files

signalfd.2

Michael Kerrisk

signalfd() doesn't play well with helper programs spawned by libraries

See <https://lwn.net/Articles/415684/>.

Michael Kerrisk

signalfd can't be used to receive synchronously generated signals

Signals such as the SIGSEGV that results from an invalid

memory access can be caught only with a handler.

stat.2

Michael Kerrisk

EXAMPLE: extend program to also show ID of the containing device

Michael Kerrisk

NOTES: mention fstatat() AT_NO_AUTOMOUNT in discussion of automounting

statfs.2

Namhyung Kim

Add more filesystem types

Add missing magic numbers from /usr/include/linux/magic.h

syscall.2

Mike Frysinger

Add endian details with 64-bit splitting

Architectures that split 64-bit values across register pairs usually do so according to their C ABI calling convention (which means endianness). Add some notes to that effect, and change the readahead example to show a little endian example (since that is way more common than big endian).

Also start a new list of syscalls that this issue does not apply to.

Mike Frysinger

Note parisc handling of aligned register pairs

While parisc would normally have the same behavior as ARM/PowerPC, they decide to write shim syscall stubs to unpack/realign rather than expose the padding to userspace.

tkill.2

Jann Horn

Document EAGAIN error for real-time signals

truncate.2

Michael Kerrisk

Note use of ftruncate() for POSIX shared memory objects

unlink.2

Michael Kerrisk

ERRORS: add EPERM error for immutable/read-only files

vfork.2

Michael Kerrisk

Explain why the child should not call exit(3)

Michael Kerrisk

Another reason to use vfork() is to avoid overcommitting memory

Michael Kerrisk

Note some caveats re the use of vfork()

Inspired by Rich Felker's post at <http://ewontfix.com/7/>.

See also https://sourceware.org/bugzilla/show_bug.cgi?id=14749 and

See also https://sourceware.org/bugzilla/show_bug.cgi?id=14750.

Michael Kerrisk

SEE ALSO: `add _exit(2)`

`write.2`

Michael Kerrisk [Kai NODA]

Alert the reader that there is a limit on 'count'

See https://bugzilla.kernel.org/show_bug.cgi?id=86061

`aio_suspend.3`

Michael Kerrisk

Note that the glibc implementation is not async-signal-safe

See https://sourceware.org/bugzilla/show_bug.cgi?id=13172

`backtrace.3`

Michael Kerrisk

SEE ALSO: `add addr2line(1)` and `gdb(1)`

`bcmp.3`

`bcopy.3`

`bzero.3`

`memccpy.3`

`memchr.3`

`memcmp.3`

`memcpy.3`

`memfrob.3`

`memmem.3`

`memmove.3`

`memset.3`

Michael Kerrisk

SEE ALSO: `add bstring(3)`

`exec.3`

Michael Kerrisk

`execl()` and `execle()` were not async-signal-safe before glibc 2.24

`fopen.3`

Michael Kerrisk [Helmut Eller]

Describe `freopen()` behavior for NULL pathname argument

See https://bugzilla.kernel.org/show_bug.cgi?id=191261

Michael Kerrisk

Note the `open(2)` flags that correspond to the 'mode' argument

Michael Kerrisk

Change argument name: 'path' to 'pathname'

For consistency with `open(2)`.

Michael Kerrisk

Add subsection headings for each function

fts.3

Michael Kerrisk

Use better argument name for `fts_children()` and `fts_set()`

Michael Kerrisk

Fix minor error in `FTSENT` structure definition

Michael Kerrisk

Improve explanation of `'fts_errno'`

Michael Kerrisk

Give a hint that there are further fields in the `FTSENT` structure

Michael Kerrisk

Clarify meaning of zero as `'instr'` value for `fts_set()`

ftw.3

Michael Kerrisk

Correctly handle use of stat info for `FTW_NS` in example program

Michael Kerrisk

Clarify that stat buffer is undefined for `FTW_NS`

getline.3

Michael Kerrisk

EXAMPLE: better error handling

Michael Kerrisk [Kent Fredic]

EXAMPLE: handle null bytes in input

Jann Horn

Document `ENOMEM` error case

see the error handling in `libio/iogetdelim.c`

Michael Kerrisk

EXAMPLE: specify file to be opened as command-line argument

Michael Kerrisk

Use better variable name in example program

getmntent.3

Michael Kerrisk [Anders Thulin]

Prefer `\\` as the escape to get a backslash

See https://bugzilla.kernel.org/show_bug.cgi?id=191611

getopt.3

Michael Kerrisk

Reword discussion of error handling and reporting

The existing description was hard to understand. Break it into a bullet list that separates out the details in a manner that is easier to parse.

Michael Kerrisk

Correct details of use of `<stdio.h>` to get `getopt()` declaration

Michael Kerrisk [John Wiersba]

Remove some redundant text

mq_open.3

Michael Kerrisk [Adam Martindale]

Include definition of the 'mq_attr' structure in this man page
Make the reader's life a little easier by saving them from
having to refer to mq_getattr(3).

mq_send.3

Michael Kerrisk [Adam Martindale]

Refer to mq_overview(7) for details on range of message priority

__ppc_set_ppr_med.3

Wainer dos Santos Moschetta

Note need for _ARCH_PWR8 macro

The _ARCH_PWR8 macro must be defined to get the
__ppc_set_ppr_very_low() and __ppc_set_ppr_med_high()
definitions.

printf.3

Michael Kerrisk

Document nonstandard 'Z' modifier

Michael Kerrisk

Document 'q' length modifier

Michael Kerrisk [Erik Roland van der Meer]

Fix a small bug in example code

Move the second call to va_end(ap) to above the if-block that
precedes it, so that the va_list 'ap' will be cleaned up in
all cases.

Michael Kerrisk [Nadav Har'El]

As a nonstandard extension, GNU treats 'll' and 'L' as synonyms

See https://bugzilla.kernel.org/show_bug.cgi?id=190341.

Michael Kerrisk

Add references to setlocale(3) in discussions of locales

Michael Kerrisk

SEE ALSO: remove bogus self reference (dprintf(3))

random.3

Michael Kerrisk

Relocate information of "optimal" value of initState() 'n' argument
The information was a bit hidden in NOTES.

random_r.3

Michael Kerrisk [Jan Ziak]

'buf.state' must be initialized to NULL before calling initState_r()

See https://bugzilla.kernel.org/show_bug.cgi?id=192801.

Michael Kerrisk

Add some usage notes for setstate_r()

Michael Kerrisk

Note that 'buf' records a pointer to 'statebuf'

See https://sourceware.org/bugzilla/show_bug.cgi?id=3662.

Michael Kerrisk

Add BUGS section pointing out the weirdness of the `initstate_r()` API

resolver.3

Michael Kerrisk

`RES_AAONLY`, `RES_PRIMARY`, `RES_NOCHECKNAME`, `RES_KEEPTSIG` are deprecated

These options were never implemented; since glibc 2.25, they are deprecated.

Michael Kerrisk

The `RES_NOIP6DOTINT` is removed in glibc 2.25

Michael Kerrisk

Note that `RES_BLAZT` was unimplemented and is now deprecated

Michael Kerrisk

`RES_USE_INET6` is deprecated since glibc 2.25

Michael Kerrisk

`RES_USEBSTRING` was removed in glibc 2.25

resolver.3

resolv.conf.5

Michael Kerrisk

Note that `RES_USEBSTRING` defaults to off

scandir.3

Michael Kerrisk [Ian Jackson]

Fix errors in example program

See <http://bugs.debian.org/848231>.

Michael Kerrisk

Improve logic of the example program

scanf.3

Michael Kerrisk

Document the quote (') modifier for decimal conversions

sem_post.3

setjmp.3

Michael Kerrisk

SEE ALSO: `add signal-safety(7)`

sem_wait.3

Michael Kerrisk [Fabjan Sukalia]

Remove statement that `SA_RESTART` does not cause restarting

This has not been true since Linux 2.6.22. The description of `EINTR` maintains a reference to `signal(7)`, which explains the historical details.

See https://bugzilla.kernel.org/show_bug.cgi?id=192071

sleep.3

Michael Kerrisk [Mike Frysiner]

Note that sleep() is implemented via nanosleep(2)

See https://bugzilla.kernel.org/show_bug.cgi?id=73371.

Michael Kerrisk [Mike Frysinger]

Note that sleep() sleeps for a real-time number of seconds

See https://bugzilla.kernel.org/show_bug.cgi?id=73371.

Michael Kerrisk

Convert BUGS text to "Portability notes" subsection

The existing text is not a bug, as such.

Michael Kerrisk

DESCRIPTION: minor reworking

strerror.3

Heinrich Schuchardt

Indicate reasonable buffer size for strerror_r() and strerror_l()

Add a hint which buffer size is needed for
strerror_r() and strerror_l().

strverscmp.3

Michael Kerrisk [Vivencio Pagliari]

Fix comparison error in example program

system.3

Michael Kerrisk

In the glibc implementation, fork handlers are not executed by system()

random.4

Michael Kerrisk [Jon Jensen]

Note that entropy_avail will be a number in the range 0..4096

core.5

Michael Kerrisk

Clarify that dumping program's initial CWD is root directory

Michael Kerrisk

The target of core dump piping can also be a script

filesystems.5

Michael Kerrisk

SEE ALSO: add btrfs(5), nfs(5), tmpfs(5)

intro.5

Michael Kerrisk

Document the reality that by now Section 5 also covers filesystems

There are by now, from various filesystem projects, various
pages in Section 5 that document different filesystems.

Change intro(5) to reflect that.

Documented after following: <http://bugs.debian.org/847998>

proc.5

Mike Frysinger [Michael Kerrisk]

Clarify /proc/pid/environ behavior

/proc/pid/environ reflects process environment at

start of program execution; it is set at time of `execve(2)`

Michael Kerrisk

Add reference to `slabinfo(5)` in discussion of /proc/meminfo 'Slab' field

Michael Kerrisk

Add entries for "keys" files that refer reader to `keyrings(7)`

Michael Kerrisk

Remove duplicate /proc/[pid]/seccomp entry

Michael Kerrisk

Mention other system calls that create 'anon_inode' file descriptors

Mention a few other system calls that create file descriptors

that display an 'anon_inode' symlink in /proc/PID/fd

Michael Kerrisk

Add some detail on `overcommit_memory` value 1

Michael Kerrisk

Add reference to `vdso(7)` in discussion of /proc/PID/maps

resolv.conf.5

Michael Kerrisk

`ip6-bytestring` was removed in glibc 2.25

Michael Kerrisk

The `ipc-dotint` and `no-ip6-dotint` options were removed in glibc 2.25

Michael Kerrisk

The 'inet6' option is deprecated since glibc 2.25

slabinfo.5

Michael Kerrisk

SEE ALSO: add `slabtop(1)`

capabilities.7

Michael Kerrisk [Casey Schaufler]

Add subsection with notes to kernel developers

Provide some notes to kernel developers considering how to choose

which capability should govern a new kernel feature.

Michael Kerrisk

Further enhance the recommendation against new uses of `CAP_SYS_ADMIN`

Michael Kerrisk

Explicitly point from `CAP_SYS_ADMIN` to "Notes for kernel developers"

Michael Kerrisk

Add another case for `CAP_DAC_READ_SEARCH`

Michael Kerrisk

Refer to `execve(2)` for the reasons that file capabilities may be ignored

Michael Kerrisk

Document a new use of CAP_SYS_RESOURCE

Michael Kerrisk

Add some more operations governed by CAP_SYS_ADMIN

Michael Kerrisk

Adjust references to chattr(1) to point to ioctl_iflags(2)

environ.7

Michael Kerrisk

Mention prctl(2) PR_SET_MM_ENV_START and PR_SET_MM_ENV_END operations

inotify.7

Michael Kerrisk

Point out that inotify monitoring is inode based

ip.7

Michael Kerrisk

SEE ALSO: add ip(8)

man.7

uri.7

Jakub Wilk

Use "www.kernel.org" in example URLs

Apparently www.kernelnotes.org is now a spam site.

mount_namespaces.7

Michael Kerrisk [Rob Landley]

Rework the discussion of defaults for mount propagation types

Add rather more detail. In particular, note the cases where the default propagation type is MS_PRIVATE vs MS_SHARED.

namespaces.7

Michael Kerrisk

EXAMPLE: fix an error in shell session

Michael Kerrisk

EXAMPLE: rename the example program

Use a more generic name, since this program may be expanded in various ways in the future.

Michael Kerrisk

SEE ALSO: add ip-netns(8)

Michael Kerrisk

Remove content split out into ioctl_ns(2)

netlink.7

Michael Kerrisk

NETLINK_IP6_FW went away in Linux 3.5

Michael Kerrisk

NETLINK_W1 went away in Linux 2.6.18

Michael Kerrisk

Add NETLINK_SCSITRANSPORT to list

Michael Kerrisk

Add NETLINK_RDMA to list

Michael Kerrisk

NETLINK_FIREWALL was removed in Linux 3.5

Michael Kerrisk

NETLINK_NFLOG was removed in Linux 3.17

Jakub Wilk

Update libnl homepage URL

The original URL is 404.

pid_namespaces.7

user_namespaces.7

Michael Kerrisk

Adjust references to namespaces(7) to ioctl_ns(2)

pid_namespaces.7

Keno Fischer

CLONE_SIGHAND|CLONE_VM|CLONE_NEWPID is no longer disallowed

pipe.7

Michael Kerrisk

Since Linux 4.9, pipe-max-size is ceiling for the default pipe capacity

Michael Kerrisk

Clarify that default pipe capacity is 16 pages

The statement that the default pipe capacity is 65536 bytes is accurate only on systems where the page size is 4096B.

See the use of PIPE_DEF_BUFFERS in the kernel source.

random.7

Michael Kerrisk

Mention getentropy(3)

Michael Kerrisk

SEE ALSO: add getentropy(3)

Michael Kerrisk

SEE ALSO: add getauxval(3)

A small hint to the reader that some random bytes arrive in the auxiliary vector.

signal.7

Michael Kerrisk

SIGSYS: add reference to seccomp(2)

Michael Kerrisk

Change description of SIGSYS to "Bad system call"

This is the more typical definition.

Michael Kerrisk

SIGPIPE: add reference to pipe(7)

Michael Kerrisk

SIGXFSZ: add reference to setrlimit(2)

Michael Kerrisk

Add a name for SIGEMT

Michael Kerrisk

SIGXCPU: add reference to setrlimit(2)

Michael Kerrisk

Migrated signal-safety discussion to new signal-safety(7) page

unix.7

Michael Kerrisk [Sergey Polovko]

Since Linux 3.4, UNIX domain sockets support MSG_TRUNC

This was correctly noted in recv(2), but the unix(7) page

was not correspondingly updated for the Linux 3.4 change.

Michael Kerrisk [Willy Tarreau]

Document ETOOMANYREFS for SCM_RIGHTS send exceeding RLIMIT_NOFILE limit

user_namespaces.7

Michael Kerrisk

Change page cross reference: keyctl(2) ==> keyrings(7)

ld.so.8

Michael Kerrisk

LD_BIND_NOT has effect only for function symbols

Michael Kerrisk

Describe use of LD_DEBUG with LD_BIND_NOT

Michael Kerrisk

In secure mode, LD_AUDIT restricts the libraries that it will load

Michael Kerrisk

LD_AUDIT understands \$ORIGIN, \$LIB, and \$PLATFORM

==== Changes in man-pages-4.11 =====

Released: 2017-05-03, Baden, Switzerland

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

ioctl_userfaultfd.2

Michael Kerrisk, Mike Rapoport

New page describing ioctl(2) operations for userfaultfd

statx.2

David Howells, Michael Kerrisk [Andreas Dilger]

New page describing statx(2) system call added in Linux 4.11

userfaultfd.2

Mike Rapoport, Michael Kerrisk [Andrea Arcangeli]
New page describing userfaultfd(2) system call.

pthread_atfork.3

Michael Kerrisk
New page describing pthread_atfork(3)

slabinfo.5

Michael Kerrisk
Rewrite to try to bring the content close to current reality
There's still gaps to fill in, but the existing page
was in any case hugely out of date.

inode.7

Michael Kerrisk
New page with information about inodes
David Howells provided a statx(2) page that duplicated much of
the information from stat(2). Avoid such duplication
by moving the common information in stat(2) and statx(2)
to a new page.

Renamed pages

ioctl_console.2

Michael Kerrisk
Renamed from console_ioctl.4
Most ioctl() man pages are in section 2, so move this one there
for consistency.

Michael Kerrisk
Note type of 'argp' for a various operations
For some commands, there was no clear statement about the type
of the 'argp' argument.

ioctl_tty.2

Michael Kerrisk
Renamed from tty_ioctl(4)
All other ioctl(2) pages are in section 2. Make this
page consistent.

Michael Kerrisk
Packet mode state change events give POLLPRI events for poll(2)

Newly documented interfaces in existing pages

ioctl_ns.2

Michael Kerrisk

Document the NS_GET_NSTYPE operation added in Linux 4.11

Michael Kerrisk

Document the NS_GET_OWNER_UID operation added in Linux 4.11

proc.5

Michael Kerrisk

Document /proc/sys/kernel/sched_child_runs_first

namespaces.7

Michael Kerrisk

Document the /proc/sys/user/* files added in Linux 4.9

socket.7

Francois Saint-Jacques, Michael Kerrisk

Document SO_INCOMING_CPU

New and changed links

console_ioctl.4

Michael Kerrisk

Link for old name of ioctl_console(2) page

tty_ioctl.4

Michael Kerrisk

Link for old name of ioctl_tty(2) page

Global changes

Various pages

Michael Kerrisk

Change page cross-references from tty_ioctl(4) to ioctl_tty(2)

Michael Kerrisk

Change page cross-references for console_ioctl(4) to ioctl_console(2)

Changes to individual pages

alarm.2

Michael Kerrisk

SEE ALSO: add timer_create(2) and timerfd_create(2)

chmod.2

fsync.2

mkdir.2

mknod.2

open.2

truncate.2

umask.2

utime.2

utimensat.2

Michael Kerrisk

Add/replace references to inode(7)

clone.2

Michael Kerrisk

CLONE_NEWCGROUP by an unprivileged process also causes an EPERM error

clone.2

unshare.2

Michael Kerrisk

Exceeding one of the limits in /proc/sys/user/* can cause ENOSPC

Michael Kerrisk

CLONE_NEWPID yields ENOSPC if nesting limit of PID namespaces is reached

Michael Kerrisk

Exceeding the maximum nested user namespace limit now gives ENOSPC

Formerly, if the limit of 32 nested user namespaces was exceeded, the error EUSERS resulted. Starting with Linux 4.9, the error is ENOSPC.

epoll_ctl.2

Michael Kerrisk

Defer to poll(2) for an explanation of EPOLLIN

Michael Kerrisk [Nicolas Biscos]

EPOLLERR is also set on write end of a pipe when the read end is closed

Michael Kerrisk [Nicolas Biscos]

Give the reader a clue that the 'events' field can be zero

'events' specified as zero still allows EPOLLHUP and EPOLLERR to be reported.

_exit.2

Michael Kerrisk

On exit, child processes may be inherited by a "subreaper"

It is no longer necessarily true that orphaned processes are inherited by PID 1.

Michael Kerrisk

Only the least significant byte of exit status is passed to the parent

fcntl.2

Michael Kerrisk

Mention memfd_create() in the discussion of file seals

Give the reader a clue about what kinds of objects can be employed with file seals.

Michael Kerrisk

File seals are not generally applicable to tmpfs(5) files

As far as I can see, file seals can be applied only to memfd_create(2) file descriptors. This was checked by experiment and by reading mm/shmem.c::shmem_get_inode(), where one finds the following line that applies to all new shmem files:

```
info->seals = F_SEAL_SEAL;
```

Only in the code of the memfd_create() system call is this setting reversed (in mm/shmem.c::memfd_create):

```
if (flags & MFD_ALLOW_SEALING)
    info->seals &= ~F_SEAL_SEAL;
```

fork.2

Michael Kerrisk

SEE ALSO: add pthread_atfork(3)

getdents.2

open.2

stat.2

statx.2

Michael Kerrisk

SEE ALSO: add inode(7)

getdtablesize.2

attr.5

Alexander Miller

Move .so directive to first line

Improves compatibility with the man and other dumb tools that process man page files.

getpid.2

Michael Kerrisk

Mention init(1) and "subreapers" in discussion of parent PID

ioctl_list.2

Cyril Hrubis [Arnd Bergmann]

BLKRASET/BLKRASET take unsigned long

ioctl_ns.2

Michael Kerrisk

ERRORS: document ENOTTY

kexec_load.2

sched_setaffinity.2

bootparam.7

Michael Kerrisk

Documentation/kernel-parameters.txt is now in Documentation/admin-guide/

lseek.2

Michael Kerrisk

SEE ALSO: add fallocate(2)

Both of these pages discuss file holes.

mincore.2

Michael Kerrisk

SEE ALSO: add fincore(1)

mmap.2

Michael Kerrisk

Remove ancient reference to flags that appear on some other systems

MAP_AUTOGROW, MAP_AUTORES RV, MAP_COPY, and MAP_LOCAL may have appeared on some systems many years ago, but the discussion here mentions no details and the systems and flags probably ceased to be relevant long ago. So, remove this text.

Michael Kerrisk

SEE ALSO: add userfaultfd(2)

open.2

Michael Kerrisk

Add statx() to list of "at" calls in rationale discussion

poll.2

Michael Kerrisk

Expand discussion of POLLPRI

Michael Kerrisk [Nicolas Biscos]

POLLERR is also set on write end of a pipe when the read end is closed

posix_fadvise.2

Michael Kerrisk

SEE ALSO: add fincore(1)

prctl.2

Mike Frysinger

PR_SET_MM: Refine CONFIG_CHECKPOINT_RESTORE requirement

The Linux 3.10 release dropped the c/r requirement and opened it up to all users.

Mike Frysinger

PR_SET_MM: Document new PR_SET_MM_MAP{,_SIZE} helpers

Mike Frysinger

PR_SET_MM: Document arg4/arg5 zero behavior

The kernel will immediately reject calls where arg4/arg5 are not

zero. See kernel/sys.c:prctl_set_mm().

Michael Kerrisk

Explain rationale for use of subreaper processes

Michael Kerrisk

Note semantics of child_subreaper setting on fork() and exec()

Michael Kerrisk

Improve description of PR_SET_CHILD_SUBREAPER

rename.2

Michael Kerrisk [Georg Sauthoff]

Note that there is no glibc wrapper for renameat2()

sched_setaffinity.2

Michael Kerrisk

SEE ALSO: add get_nprocs(3)

select.2

Michael Kerrisk [Matthew Wilcox, Carlos O'Donnell]

Linux select() is buggy wrt POSIX in its check for EBADF errors

Michael Kerrisk

Show correspondence between select() and poll() readiness notifications

Michael Kerrisk

Give a hint that sets must be reinitialized if using select() in a loop

Michael Kerrisk

Refer to POLLPRI in poll(2) for info on exceptional conditions

Michael Kerrisk

Move mislocated text describing the self-pipe text from BUGS to NOTES

sigaction.2

Michael Kerrisk

Show the prototype of an SA_SIGINFO signal handler

signalfd.2

Michael Kerrisk

SIGKILL and SIGSTOP are silently ignored in 'mask'

sigprocmask.2

Dmitry V. Levin

Do not specify an exact value of rt_sigprocmask's 4th argument

As sizeof(kernel_sigset_t) is not the same for all architectures,
it would be better not to mention any numbers as its value.

Michael Kerrisk

'set' and 'oldset' can both be NULL

sigwaitinfo.2

Michael Kerrisk

sigwaitinfo() can't be used to accept synchronous signals

socketcall.2

Mike Frysinger

Document call argument

stat.2

Michael Kerrisk

Remove information migrated to inode(7) page

Michael Kerrisk

Restructure field descriptions as a hanging list

Michael Kerrisk

Remove "Other systems" subsection

These details about other systems were added in 1999,
and were probably of limited use then, and even less today.

However, they do clutter the page, so remove them.

Michael Kerrisk

DESCRIPTION: add list entries for 'st_uid' and 'st_gid'

Michael Kerrisk

Add some subsection headings to ease readability

David Howells

ERRORS: correct description of ENOENT

Michael Kerrisk

Give 'struct stat' argument a more meaningful name ('statbuf')

Marcin Iusarz

Tweak description of AT_EMPTY_PATH

Currently it says when dirfd is AT_FDCWD it can be something
other than directory, which doesn't make much sense. Just swap
the order of sentences.

Michael Kerrisk

Add slightly expanded description of 'st_ino' field

Michael Kerrisk

DESCRIPTION: add a list entry for 'st_ino'

Michael Kerrisk

DESCRIPTION: add a list entry for 'st_nlinks' field

syscalls.2

Michael Kerrisk

Add membarrier(2)

Michael Kerrisk

Fix kernel version for userfaultfd(2)

Michael Kerrisk

Linux 4.11 added statx()

Michael Kerrisk

Include deprecated getunwind(2) in list

wait.2

Michael Kerrisk

Orphaned children may be adopted by a "subreaper", rather than PD 1

bzero.3

Michael Kerrisk [Zack Weinberg]

Add correct header file for explicit_bzero()

cfree.3

Michael Kerrisk

cfree() is removed from glibc in version 2.26

exit.3

Michael Kerrisk

Improve discussion of zombie processes

getentropy.3

Nikos Mavrogiannopoulos [Michael Kerrisk, Florian Weimer]

Correct header file

Michael Kerrisk [Frank Theile]

SYNOPSIS: add missing return type for getentropy() declaration

grantpt.3

Michael Kerrisk

Tell a more nuanced story about what grantpt() does or does not do

insque.3

Michael Kerrisk

SEE ALSO: add queue(3)

queue.3

Michael Kerrisk

SEE ALSO: add insque(3)

shm_open.3

Michael Kerrisk

Clarify that POSIX shared memory uses tmpfs(5)

syslog.3

Michael Kerrisk [Ian Abbott, Walter Harms]

Reorganize page text for easier parsing and better readability

Michael Kerrisk

Various rewordings and improvements

Michael Kerrisk

Note default value for 'facility' when calling openlog()

Michael Kerrisk

SEE ALSO: add journalctl(1)

ttyname.3

Dmitry V. Levin

Document ENODEV error code

Christian Brauner

NOTES: warn about a confusing case that may occur with mount namespaces

wcsdup.3

Jan Heberer

RETURN VALUE: fix error in return value description

Return value for failure was accidentally changed from NULL to

-1 in man-pages commit 572acb41c48b6b8e690d50edff367d8b8b01702a.

elf.5

Michael Kerrisk

SEE ALSO: add elfedit(1), nm(1), size(1), strings(1), and strip(1)

nsswitch.conf.5

Florian Weimer

Mention sudoers

It turns out that sudo drops things into nsswitch.conf, too.

proc.5

Michael Kerrisk

Refer to namespaces(7) for discussion of /proc/sys/user/* files

Michael Kerrisk

Simplify /proc/slabinfo entry

Don't repeat (out-of-date) info from slabinfo(5); just defer to that page.

tmpfs.5

Michael Kerrisk

tmpfs supports extended attributes, but not 'user' extended attributes

environ.7

Jakub Wilk

Fix name of function that honors TMPDIR

tempnam() takes the TMPDIR environment variable into account, unlike tmpnam(), which always creates pathnames within /tmp.

hostname.7

Marko Myllynen

Use lower case for hostname example

Marko Myllynen

Use generic names in examples

Marko Myllynen

Describe accepted characters for hostname

inotify.7

Michael Kerrisk [Nicolas Iooss]

Mounting a filesystem on top of a monitored directory causes no event

man-pages.7

Michael Kerrisk

Note preferred approach for 'duplicate' errors

pid_namespaces.7

Michael Kerrisk

The maximum nesting depth for PID namespaces is 32

user_namespaces.7

Stephan Bergmann

Fixes to example

While toying around with the `userns_child_exec` example program on the `user_namespaces(7)` man page, I noticed two things:

* In the EXAMPLE section, we need to mount the new `/proc` before looking at `/proc/$$/status`, otherwise the latter will print information about the outer namespace's PID 1 (i.e., the real init). So the two paragraphs need to be swapped.

* In the program source, make sure to close `pipe_fd[0]` in the child before exec'ing.

pthread.7

Michael Kerrisk

SEE ALSO: add `pthread_rwlockattr_setkind_np(3)`

pty.7

Michael Kerrisk

Mention a couple of other applications of pseudoterminals

sem_overview.7

Michael Kerrisk

SEE ALSO: add `shm_overview(7)`

signal.7

Michael Kerrisk

SEE ALSO: add `sigreturn(2)`

tcp.7

Michael Kerrisk

Note indications for OOB data given by `select(2)` and `poll(2)`

Chema Gonzalez

`tcp_abc` was removed in 3.9

xattr.7

Michael Kerrisk

SEE ALSO: add `ioctl_iflags(2)`

People sometimes confuse `xattrs` and inode flags. Provide a link to the page that describes inode flags to give them a tip.

ld.so.8

Michael Kerrisk

Mention quoting when using "Rpath tokens" in LD_AUDIT and LD_PRELOAD

Michael Kerrisk

Expand description of /etc/ld.so.preload

Michael Kerrisk

Mention ldconfig(8) in discussion of /etc/ld.so.cache

zdump.8

Jakub Wilk

Add OPTIONS section heading

===== Changes in man-pages-4.12 =====

Released: 2017-07-13, London

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

ioctl_getfsmap.2

Darrick J. Wong

Document the GETFSMAP ioctl

Document the new GETFSMAP ioctl that returns the physical layout of a
(disk-based) filesystem.

Newly documented interfaces in existing pages

namespaces.7

Kirill Tkhai [Michael Kerrisk]

Document the /proc/[pid]/ns/pid_for_children file

Changes to individual pages

ldd.1

Michael Kerrisk

'objdump -p prog | grep NEEDED' doesn't give quite same info as 'ldd'

chmod.2

Michael Kerrisk

Put fchmod() feature test macro requirements in a more readable format

Michael Kerrisk

Note glibc 2.24 feature test macro requirements changes for fchmod()

chown.2

Michael Kerrisk

When file owner or group is changed, file capabilities are cleared

Michael Kerrisk

Changes to file owner by root also clear set-UID and set-GID bits

clone.2

Michael Kerrisk

Update BUGS to reflect fact that PID caching was removed in glibc 2.25

epoll_wait.2

Michael Kerrisk

Clarify semantics of returned 'data' field

The returned 'data' is the 'data' most recently set via
epoll_ctl().

get_mempolicy.2

Michael Kerrisk [Nadav Har'El, Andi Kleen]

SYNOPSIS: fix return type of get_mempolicy()

See https://bugzilla.kernel.org/show_bug.cgi?id=97051

getpid.2

Carlos O'Donell, Michael Kerrisk

Note that PID caching is removed as of glibc 2.25

Since glibc 2.25 the PID cache is removed.

Rationale given in the release notes:

https://sourceware.org/glibc/wiki/Release/2.25#pid_cache_removal

ioctl.2

Michael Kerrisk

SEE ALSO: add ioctl_getfsmap(2)

ioctl_getfsmap.2

Michael Kerrisk

Fix ordering of sections

Michael Kerrisk

Add VERSIONS section

Michael Kerrisk

ERRORS: order alphabetically

madvise.2

Michael Kerrisk

Remove bogus text re POSIX_MADV_NOREUSE

There is a POSIX_FADV_NOREUSE for posix_fadvise(),
but no POSIX_MADV_NOREUSE for any API in POSIX.

membarrier.2

Michael Kerrisk

Add ENOSYS error for 'nohz_full' CPU setting

mount.2

NeilBrown

Revise description of MS_REMOUNT | MS_BIND

MS_REMOUNT|MS_BIND affects all per-mount-point flag. MS_RDONLY is only special because it, uniquely, is both a per-mount-point flag *and* a per-filesystem flag.

So the sections of per-mount-point flags and MS_REMOUNT can usefully be clarified.

open.2

Michael Kerrisk

Note some further advantages of the *at() APIs

pipe.2

Michael Kerrisk

SEE ALSO: add tee(2) and vmsplice(2)

readv.2

Michael Kerrisk

glibc 2.26 adds library support for preadv2() and pwritev2()

sched_setaffinity.2

Michael Kerrisk

Mention cpuset cgroups as a cause of EINVAL error

seccomp.2

Mike Frysinger

Expand SECCOMP_RET_KILL documentation

sigaction.2

Michael Kerrisk

Note feature test macro requirements for 'si_code' constants

Michael Kerrisk

Add a subheading for the description of 'si_code'

Michael Kerrisk

TRAP_BRANCH and TRAP_HWBKPT are present only on IA64

sigaltstack.2

Michael Kerrisk

Note that specifying SS_ONSTACK in ss.ss_flags decreases portability

In the Illumos source (which presumably mirrors its Solaris ancestry), there is this check in the sigaltstack() implementation:

```
if (ss.ss_flags & ~SS_DISABLE)
    return (set_errno(EINVAL));
```

And in the FreeBSD source we find similar:

```
if ((ss->ss_flags & ~SS_DISABLE) != 0)
    return (EINVAL);
```

Michael Kerrisk

Note buggy addition of `ss.ss_flags==SS_ONSTACK`

Note buggy addition of `ss.ss_flags==SS_ONSTACK` as a synonym for `ss_flags==0`. No other implementation does this, AFAIK.

And it was not needed :-).

Michael Kerrisk

Specifying 'ss' returns the current settings without changing them

Michael Kerrisk

Give 'oss' argument a more meaningful name: 'old_ss'

Michael Kerrisk

Some minor reworking of the text

Michael Kerrisk

ERRORS: update description of EINVAL error

splice.2

tee.2

vmsplice.2

Michael Kerrisk

SEE ALSO: add pipe(7)

splice.2

Michael Kerrisk

ERRORS: split EINVAL error cases

Michael Kerrisk

ERRORS: add EINVAL for case where both descriptors refer to same pipe

timer_create.2

Michael Kerrisk

Document the CONFIG_POSIX_TIMERS option added in Linux 4.10

wait.2

Michael Kerrisk

Note glibc 2.26 changes to feature test macro requirements for waitid()

acosh.3

asinh.3

atanh.3

Alex Henrie

Remove C89 designation.

See https://bugzilla.kernel.org/show_bug.cgi?id=196319

bsd_signal.3

Michael Kerrisk

Note feature test macro requirements changes for glibc 2.26

dl_iterate_phdr.3

Michael Kerrisk

dl_iterate_phdr() shows the order in which objects were loaded
dl_iterate_phdr() tells us not just which objects are
loaded, but also the order in which they are loaded
(the "link-map order"). Since the order is relevant for
understanding symbol resolution, give the reader this clue.

Michael Kerrisk

Expand the code example, and show sample output

Michael Kerrisk

List values for the 'p_type' field

dlsym.3

Michael Kerrisk

_GNU_SOURCE is needed to get RTLD_DEFAULT and RTLD_NEXT definitions

flockfile.3

Michael Kerrisk

Note glibc 2.24 feature test macro requirement changes

fpathconf.3

Michael Kerrisk

Rework RETURN VALUE description to add more detail

Michael Kerrisk

Add an errors section

Michael Kerrisk

Largely rewrite the description of _PC_CHOWN_RESTRICTED

Michael Kerrisk

Rewrite description of _PC_PIPE_BUF

The existing description was not accurate, and lacked details.

ftw.3

Michael Kerrisk

BUGS: document a probable glibc regression in FTW_SLN case

See https://bugzilla.redhat.com/show_bug.cgi?id=1422736

and <http://austingroupbugs.net/view.php?id=1121>.

getaddrinfo.3

Quentin Rameau

Fix _POSIX_C_SOURCE value for getaddrinfo()

The correct _POSIX_C_SOURCE value is 200112L, not 201112L in features.h.

getcontext.3

Carlos O'Donell

Exemplar structure should use 'ucontext_t'.

getgrent.3

Michael Kerrisk

Note glibc 2.22 changes for feature test macro requirements

grantpt.3

ptsname.3

unlockpt.3

Ferdinand Thiessen [Michael Kerrisk]

Update feature test macro-requirements for glibc 2.24

if_nametoindex.3

Douglas Caetano dos Santos

Add ENODEV error for if_nametoindex()

malloc.3

Michael Kerrisk

Document the reallocarray() added in glibc 2.26

nl_langinfo.3

Michael Kerrisk

Note feature test macro requirements for nl_langinfo_l()

posix_madvise.3

Dr. Tobias Quathamer

Remove paragraph about POSIX_FADV_NOREUSE

POSIX_FADV_NOREUSE is documented for posix_fadvise, and a

corresponding POSIX_MADV_NOREUSE flag is not specified by POSIX.

See <https://bugs.debian.org/865699>

ptsname.3

Michael Kerrisk [Arjun Shankar]

Since glibc 2.26, ptsname_r() no longer gives EINVAL for buf==NULL

rand.3

Michael Kerrisk

Note glibc 2.24 feature test macro requirement changes for rand_r()

resolver.3

Michael Kerrisk

Add basic notes on 'op' argument of res_nmkquery() and res_mkquery()

sigpause.3

Michael Kerrisk

Note glibc 2.26 changes to feature test macro requirements

sigwait.3

Michael Kerrisk

Note glibc 2.26 feature test macro changes

strtol.3

Heinrich Schuchardt

Mention 0X prefix

The prefix 0x may be capitalized as 0X.

See ISO/IEC 9899:1999.

sysconf.3

Michael Kerrisk [Pavel Tikhomirov]

Rework RETURN VALUE description to add more detail

Make the discussion clearer, and add a few details.

Also, fix the problem report from Pavel Tikhomirov who noted that the man page falsely said that errno is not changed on a successful return.

Addresses https://bugzilla.kernel.org/show_bug.cgi?id=195955

Michael Kerrisk

Add ERRORS section

ttyslot.3

Michael Kerrisk

Fix error in feature test macro requirements

Michael Kerrisk

Note feature test macro requirements changes in glibc 2.24

Michael Kerrisk

Clarify details of use of <stdlib.h> file

unlocked_stdio.3

Michael Kerrisk

Note glibc 2.24 feature test macro requirement changes

elf.5

Michael Kerrisk

SEE ALSO: add dl_iterate_phdr(3)

nsswitch.conf.5

DJ Delorie

Clarify group merge rules

This minor patch clarifies when merging is not done, and how duplicate entries are merged.

proc.5

Michael Kerrisk

Document that 'iowait' field of /proc/stat is unreliable

Text taken from Chao Fan's kernel commit 9c240d757658a3ae996.

slabinfo.5

Michael Kerrisk [Jorge Nerin]

SEE ALSO: add some references to relevant kernel source files

tmpfs.5

Michael Kerrisk

SEE ALSO: add memfd_create(2), mmap(2), shm_open(3)

capabilities.7

Michael Kerrisk

Clarify the effect on process capabilities when UID 0 does execve(2)

Michael Kerrisk

Note effect on capabilities when a process with UID != 0 does execve(2)

Michael Kerrisk [David Lewis]

Fix reversed descriptions of CAP_MAC_OVERRIDE and CAP_MAC_ADMIN

Michael Kerrisk

SEE ALSO: add filecap(8), netcap(8), pscap(8)

cgroup_namespaces.7

Michael Kerrisk

Add some further explanation of the example shell session

Michael Kerrisk

Fix a bug in shell session example

inode.7

Michael Kerrisk

Note glibc 2.24 feature test macro changes for S_IFSOCK and S_ISSOCK()

man.7

G. Branden Robinson

Undocument "URL" macro in man(7) in favor .UR+.UE

pid_namespaces.7

Michael Kerrisk

Mention /proc/[pid]/ns/pid_for_children

pipe.7

Michael Kerrisk

SEE ALSO: add tee(2) and vmsplice(2)

sigevent.7

Michael Kerrisk

Mention signal.h header file

signal.7

Michael Kerrisk [lilydjwg]

Since Linux 3.8, read(2) on an inotify FD is restartable with SA_RESTART

See https://bugzilla.kernel.org/show_bug.cgi?id=195711

Michael Kerrisk

read() from an inotify FD is no longer interrupted by a stop signal
(Change was in Linux 3.8.)

tcp.7

Michael Kerrisk

Document value '2' for tcp_timestamps

Since Linux 4.10, the value '2' is meaningful for tcp_timestamps

Ruben Kerkhof

Change default value of tcp_frto

The default changed in c96fd3d461fa495400df24be3b3b66f0e0b152f9
(Linux 2.6.24).

ld.so.8

Michael Kerrisk

Greatly expand the explanation of LD_DYNAMIC_WEAK

Carlos O'Donell

Expand DT_RUNPATH details.

ld.so.8: Expand DT_RUNPATH details.

Every 3 years we get asked why DT_RUNPATH doesn't work like DT_RPATH.

The most recent question was here:

<https://www.sourceware.org/ml/libc-help/2017-06/msg00013.html>

We need to expand the description of DT_RUNPATH to cover this situation and explain that the DT_RUNPATH entries apply only to the immediate DT_NEEDED, not that of another, say dlopen'd child object.

Michael Kerrisk

Since glibc 2.2.5, LD_PROFILE is ignored in secure-execution mode

Michael Kerrisk

Make notes on secure-execute mode more prominent

Place each note on secure-execution mode in a separate paragraph, to make it more obvious.

Michael Kerrisk

Note that libraries in standard directories are not normally set-UID

In secure mode, LD_PRELOAD loads only libraries from standard directories that are marked set-UID. Note that it is unusual for a library to be marked in this way.

Michael Kerrisk

SEE ALSO: add elf(5)

Michael Kerrisk

Note version where secure-execution started ignoring LD_USE_LOAD_BIAS

Michael Kerrisk

Correct glibc version that ignores LD_SHOW_AUXV in secure-execution mode

Ignored since 2.3.4 (not 2.3.5).

Michael Kerrisk

Rewrite LD_DEBUG_OUTPUT description and note that .PID is appended

Released: 2017-09-15, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

pthread_mutex_consistent.3

Yubin Ruan, Michael Kerrisk

New page documenting pthread_mutex_consistent(3)

pthread_mutexattr_getpshared.3

Michael Kerrisk

New page for pthread_mutexattr_getpshared(3) and pthread_mutexattr_setpshared(3)

pthread_mutexattr_init.3

Michael Kerrisk

New page for pthread_mutexattr_init(3) and pthread_mutexattr_destroy(3)

pthread_mutexattr_setrobust.3

Yubin Ruan, Michael Kerrisk

New page for pthread_mutexattr_setrobust(3) and pthread_mutexattr_getrobust(3)

sysfs.5

Michael Kerrisk [Mark Wiegaard]

New page documenting the sysfs filesystem

Just a skeleton page so far, but perhaps it will be filled out
over time.

Newly documented interfaces in existing pages

fcntl.2

Jens Axboe, Michael Kerrisk

Describe the set/get write hints commands that are added in Linux 4.13

Document F_GET_RW_HINT, F_SET_RW_HINT, F_GET_FILE_RW_HINT, and
F_SET_FILE_RW_HINT.

ioctl_tty.2

Aleksa Sarai, Michael Kerrisk

Add TIOCGPTPEER documentation

kcmp.2

Cyrill Gorcunov

Add KCMP_EPOLL_TFD description

keyctl.2

Eugene Syromyatnikov

Document the KEYCTL_RESTRICT_KEYRING operation

Eugene Syromyatnikov [Stephan Müller]

Document the ability to provide KDF parameters in KEYCTL_DH_COMPUTE

New and changed links

pthread_mutexattr_destroy.3

Michael Kerrisk

New link to new pthread_mutexattr_init.3 page

pthread_mutexattr_getrobust.3

pthread_mutexattr_getrobust_np.3

pthread_mutexattr_setrobust_np.3

Michael Kerrisk

New links to new pthread_mutexattr_setrobust.3 page

pthread_mutexattr_setpshared.3

Michael Kerrisk

New link to new pthread_mutexattr_getpshared.3 page

Global changes

Various pages

Michael Kerrisk

Use .EX/.EE for EXAMPLE programs

Various pages

Michael Kerrisk

Use consistent markup for code snippets

Change .nf/.fi to .EX/.EE

Various pages

Michael Kerrisk

Use consistent markup for code snippets

The preferred form is

.PP/IP

.in +4n

.EX
<code>
.EE
.in
.PP/.IP

Various pages

Michael Kerrisk

Formatting fix: replace blank lines with .PP/.IP

Blank lines shouldn't generally appear in *roff source (other than in code examples), since they create large vertical spaces between text blocks.

Various pages

Michael Kerrisk [Bjarni Ingi Gislason]

Add a non-breaking space between a number and a unit (prefix)

Based on a patch by Bjarni Ingi Gislason.

Various pages

Michael Kerrisk [Bjarni Ingi Gislason]

Use en-dash for ranges

Based on a patch by Bjarni Ingi Gislason.

A few pages

Michael Kerrisk

Fix misordering of sections

Michael Kerrisk

Fix order of SEE ALSO entries

Changes to individual pages

ldd.1

Michael Kerrisk

Add more detail on ldd security implications, noting glibc 2.27 changes

add_key.2

backtrace.3

syslog.3

Michael Kerrisk

Fix misordered SEE ALSO entries

add_key.2

request_key.2

keyrings.7

Eugene Syromyatnikov

Update Linux documentation pointers

chown.2

Michael Kerrisk

Update kernel version in note on support for grp/nogrp mount options

There has been no change since Linux 2.6.25, so update the kernel version to 4.12.

execve.2

Michael Kerrisk

SEE ALSO: add get_robust_list(2)

getrandom.2

Michael Kerrisk [Fabio Scotoni]

SYNOPSIS: make return type of getrandom() 'ssize_t'

This accords with glibc headers and the Linux kernel source.

getrlimit.2

Thiago Jung Bauermann

Mention unit used by RLIMIT_CORE and RLIMIT_FSIZE

Michael Kerrisk

Note that RLIMIT_AS and RLIMIT_DATA are rounded down to system page size

Michael Kerrisk

Mention unit for RLIMIT_DATA

getrlimit.2

mmap.2

malloc.3

Jonas Grabber

RLIMIT_DATA affects mmap(2) since Linux 4.7

get_robust_list.2

Michael Kerrisk

Detail the operation of robust futex lists

Michael Kerrisk

Since Linux 2.6.28, robust futex lists also have an effect for execve(2)

Michael Kerrisk

Clarify that "thread ID" means "kernel thread ID"

Michael Kerrisk

SEE ALSO: add pthread_mutexattr_setrobust(3)

ioctl_getfsmap.2

Darrick J. Wong

Correct semantics of FMR_OF_LAST flag

ioctl_userfaultfd.2

Mike Rapoport

Document replacement of ENOSPC with ESRCH

Mike Rapoport

Update uffdio_api.features description

There is no requirement that uffdio_api.features must be zero for newer kernels. This field actually defines what features space would like to enable.

io_submit.2

Sage Weil

Acknowledge possibility of short return

Note that the return value may be a value less than 'nr' if not all iocbs were queued at once.

ipc.2

Michael Kerrisk

SEE ALSO: add svipc(7)

keyctl.2

Eugene Syromyatnikov

mention keyctl_dh_compute(3) and keyctl_dh_compute_alloc (3)

These functions have been added in keyutils 1.5.10

Eugene Syromyatnikov

Mention ENOMEM in ERRORS

Eugene Syromyatnikov

Update kernel documentation path reference

move_pages.2

Otto Ebeling [Michael Kerrisk]

Note permission changes that occurred in Linux 4.13

mprotect.2

Michael Kerrisk [Shrikant Giridhar]

Add warning about the use of printf() in the example code

open.2

NeilBrown

Improve O_PATH documentation

- fstatfs is now permitted.

- ioctl isn't, and is worth listing explicitly

- O_PATH allows an automount point to be opened with triggering the mount.

prctl.2

seccomp.2

Eugene Syromyatnikov

Update pointer to in-kernel seccomp documentation

prctl.2

ptrace.2

Eugene Syromyatnikov

Update pointer to in-kernel Yama documentation

prctl.2

Eugene Syromyatnikov

Update pointer to in-kernel no_new_privs flag documentation

readlink.2

Michael Kerrisk [Jason Noakes]

Fix an off-by-one error in example code

seccomp.2

Kees Cook

Clarify SECCOMP_RET_KILL kills tasks not processes

select_tut.2

Michael Kerrisk [Sergey Z.]

Clarify an ambiguity with respect to select() and EAGAIN

See https://bugzilla.kernel.org/show_bug.cgi?id=196345

set_tid_address.2

Elliott Hughes

Note that there's no glibc wrapper for set_tid_address()

socket.2

Michael Kerrisk [Yubin Ruan]

socket() uses the lowest available file descriptor

_syscall.2

Michael Kerrisk

Remove redundant comment from EXAMPLE

A discussion of the nroff source of the manual page isn't very useful...

sysfs.2

Michael Kerrisk

Add a pointer to sysfs(5) to help possibly confused readers

Michael Kerrisk

Make it clearer near the start of the page that sysfs(2) is obsolete

timer_create.2

Michael Kerrisk

Strengthen the warning about use of printf() in the example program

Michael Kerrisk

Update cross reference: signal(7) should be signal-safety(7)

umount.2

NeilBrown

Revise MNT_FORCE description

MNT_FORCE does not allow a busy filesystem to be unmounted. Only MNT_DETACH allows that. MNT_FORCE only tries to abort pending transactions, in the hope that might help unmount not to block,

Also, other filesystems than NFS support MNT_FORCE.

unshare.2

Eugene Syromyatnikov

Update pointer to in-kernel unshare documentation

wait.2

Michael Kerrisk []

POSIX.1-2008 TC1 clarifies treatment of 'si_pid' for waitid() WNOHANG

cmmsg.3

Sukadev Bhattiprolu

Add a scatter/gather buffer to sample code

Michael Kerrisk

Reorganize the text somewhat (no content changes)

crypt.3

Konstantin Shemyak [Michael Kerrisk]

Add description of previously undocumented 'rounds' parameter

Konstantin Shemyak

Encryption isn't done with SHA-xxx, but with a function based on SHA-xxx

Konstantin Shemyak

Clarify that ending of the salt string with '\$' is optional

exit.3

Michael Kerrisk

Mention the prctl(2) PR_SET_PDEATHSIG operation

Michael Kerrisk

SEE ALSO: add get_robust_list(2)

Michael Kerrisk

Add a heading to delimit discussion of signals sent to other processes

exp2.3

Alex Henrie

Remove C89 designation

log1p.3

Alex Henrie

Document fixes to give EDOM or ERANGE on error

matherr.3

Michael Kerrisk

Note that glibc 2.27 removes the 'matherr' mechanism

Michael Kerrisk

Remove crufty feature test macro requirements

pow10.3

Michael Kerrisk

Note that pow10() is now obsolete in favor of exp10()

Also, the pow10() functions are no longer supported by glibc, starting with version 2.27.

sincos.3

Michael Kerrisk

Note that sincos() is intended to be more efficient than sin() + cos()

cciss.4

hpsa.4

Eugene Syromyatnikov [Don Brace, Meelis Roos]

Mention cciss removal in Linux 4.14

During the Linux 4.13 development cycle, the cciss driver has been removed in favor of the hpsa driver, which has been amended with some legacy board support.

initrd.4

proc.5

bootparam.7

Eugene Syromyatnikov

Update pointer to in-kernel initrd documentation

initrd.4

Eugene Syromyatnikov

Update pointer to in-kernel root over NFS documentation

intro.4

Michael Kerrisk

SEE ALSO: add mknod(1) and mknod(2)

host.conf.5

Michael Kerrisk

Add cross-reference to hosts(5)

locale.5

Marko Myllynen

Refer to existing locales for encoding details

Since I don't think it would make sense to try to have different explanation for each glibc version on the locale(5) man page, I'm proposing that we apply the below patch so that we refer to existing locale definition files in general and not spell out the exact format or any certain locale as a definitive guideline.

nologin.5

Michael Kerrisk

Add a sentence explaining why nologin is useful

proc.5

Eugene Syromyatnikov

Document removal of htab-reclaim sysctl file

This PPC-specific sysctl option has been removed in Linux 2.4.9.2, according to historic Linux repository commit log.

Eugene Syromyatnikov

Add description for cpuN lines in /proc/stat

Eugene Syromyatnikov

Add description for softirq line in /proc/stat

Eugene Syromyatnikov

Document removal of timer_stats file

Michael Kerrisk

Note Linux 4.9 changes to privileges for /proc/[pid]/timerslack_ns

Michael Kerrisk

Show command used to mount /proc

Michael Kerrisk

Explicitly note in intro that some /proc files are writable

Eugene Syromyatnikov

Update pointer to in-kernel SysRq documentation

Michael Kerrisk

SEE ALSO: add sysfs(5)

Eugene Syromyatnikov

Update pointer to in-kernel security keys documentation

Benjamin Peterson

Fix path to binfmt_misc docs

Eugene Syromyatnikov

Update pointer to in-kernel MTRR documentation

Eugene Syromyatnikov

Update reference to kernel's crypto API documentation

tzfile.5

Paul Eggert

Sync from tzdb upstream

This makes tzfile.5 a copy of the tzdb version, except that the tzdb version's first line is replaced by man-pages boilerplate.

The new version documents version 3 format, among other things.

Also, it removes the "Summary of the timezone information file format" section, which should no longer be needed due to improvements in the part of the man page.

capabilities.7

Michael Kerrisk

Note semantics for a program that is set-UID-root and has capabilities

Note semantics for a program that is both set-user-ID-root and has file capabilities.

Michael Kerrisk [Dennis Knorr]

Note that a set-UID-root program may have an empty file capability set

cgroups.7

Michael Kerrisk

SEE ALSO: systemd-cgls(1)

cpuset.7

Eugene Syromyatnikov

Update pointer to in-kernel cpusets documentation

keyrings.7

Eugene Syromyatnikov

Document description restriction for logon keys

"logon" type has additional check that enforces colon-separated prefix in key descriptions.

Eugene Syromyatnikov

Add pointers to kernel's documentation

Mostly because of asymmetric-keys.txt, which is outside security/keys for some reason.

man-pages.7

Michael Kerrisk

Expand the guidance on formatting code snippets

netlink.7

David Wilder

Change buffer size in example code about reading netlink message

Michael Kerrisk [Rick Jones]

Add a comment on 8192 buffer size in example code

pthread.7

Michael Kerrisk

SEE ALSO: add pthread_mutexattr_destroy(3) and pthread_mutexattr_init(3)

signal.7

Michael Kerrisk

Since glibc 2.26, SIGUNUSED is no longer defined

tcp.7

Vincent Bernat

tcp_tw_recycle is removed from Linux 4.12

And it is completely broken.

unicode.7

Eugene Syromyatnikov

Update pointer to in-kernel Unicode terminal support documentation

Released: 2017-11-27, Paris

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

pthread_spin_init.3

Michael Kerrisk [Peter Zijlstra, Thomas Gleixner, Zack Weinberg,
Florian Weimer]

New page describing pthread_spin_init(3) and pthread_spin_destroy(3)

pthread_spin_lock.3

Michael Kerrisk [Carlos O'Donnell]

New page describing functions that lock and unlock spin locks

Add a page describing pthread_spin_lock(3), pthread_spin_unlock(3),
and pthread_spin_trylock(3).

smartpqi.4

Don Brace [Michael Kerrisk, G. Branden Robinson]

Document the smartpqi SCSI driver

veth.4

Tomáš Pospíšek, Eric Biederman, Michael Kerrisk

New page documenting veth virtual ethernet devices

Based on a page from Tomáš Pospíšek, with some clean-ups by mtk.

Removed pages

infnan.3:

Michael Kerrisk

This function was in libc4 and libc5, but never part
of glibc. It ceased to be relevant nearly 20 years
ago. Time to remove the man page.

Newly documented interfaces in existing pages

ioctl_userfaultfd.2

userfaultfd.2

Prakash Sangappa [Andrea Arcangeli, Mike Rapoport]

Add description for UFFD_FEATURE_SIGBUS

madvise.2

Rik van Riel [Colm MacCárthaigh, Michael Kerrisk]

Document MADV_WIPEONFORK and MADV_KEEPPONFORK

Michael Kerrisk

Note fork() and execve() semantics for wipe-on-fork setting

membarrier.2

Mathieu Desnoyers

Update membarrier manpage for 4.14

Add documentation for these new membarrier() commands:

MEMBARRIER_CMD_PRIVATE_EXPEDITED

MEMBARRIER_CMD_REGISTER_PRIVATE_EXPEDITED

memfd_create.2

Mike Kravetz

Add description of MFD_HUGETLB (hugetlbf) support
hugetlbf support for memfd_create() was recently merged by Linus
and should be in the Linux 4.14 release. To request hugetlbf
support a new memfd_create() flag (MFD_HUGETLB) was added.

readv.2

Christoph Hellwig

Document RWF_NOWAIT added in Linux 4.14

seccomp.2

Tyler Hicks

Document the SECCOMP_GET_ACTION_AVAIL operation added in Linux 4.14

Tyler Hicks

Document the SECCOMP_FILTER_FLAG_LOG flag added in Linux 4.14

Tyler Hicks

Document the SECCOMP_RET_LOG action added In Linux 4.14

Michael Kerrisk [Kees Cook]

Add description of SECCOMP_RET_KILL_PROCESS

Michael Kerrisk

Add SECCOMP_RET_KILL_THREAD description and rework SECCOMP_RET_KILL text

Michael Kerrisk

Document the seccomp audit logging feature added in Linux 4.14

seccomp.2

proc.5

Tyler Hicks

Document the seccomp /proc interfaces added in Linux 4.14

Document the seccomp /proc interfaces in Linux 4.14:

/proc/sys/kernel/seccomp/actions_avail and

/proc/sys/kernel/seccomp/actions_logged.

sigaltstack.2

Michael Kerrisk [Stas Sergeev]

Document the SS_AUTODISARM flag added in Linux 4.7

proc.5

Michael Kerrisk

Document /proc/locks

Oliver Ebert

Document /proc/kpagecgroup

Oliver Ebert

Add KPF_BALLOON, KPF_ZERO_PAGE, and KPF_IDLE for /proc/kpageflags

pid_namespaces.7

Michael Kerrisk

Document /proc/sys/kernel/ns_last_pid

New and changed links

pthread_spin_destroy.3

Michael Kerrisk

New link to new pthread_spin_init.3 page

pthread_spin_trylock.3

pthread_spin_unlock.3

Michael Kerrisk

New links to new pthread_spin_lock.3 page

Global changes

Various pages

Michael Kerrisk

Consistently use "x86-64", not "x86_64"

When referring to the architecture, consistently use "x86-64", not "x86_64". Hitherto, there was a mixture of usages, with "x86-64" predominant.

Various pages

G. Branden Robinson

Replace incorrect uses of Latin abbreviation "cf.".

People seem to be using "cf." ("conferre"), which means "compare", to mean "see" instead, for which the Latin abbreviation would be "q.v." ("quod vide" -> "which see").

In some cases "cf." might actually be the correct term but it's still not clear what specific aspects of a function/system call one is supposed to be comparing.

Changes to individual pages

capget.2

Michael Kerrisk

Clarify discussion of kernels that have no VFS capability support

clock_getres.2

Michael Kerrisk

clock_gettime() may be implemented in the vDSO

clone.2

Michael Kerrisk

Warn that the clone() wrapper modifies child_stack in the parent

Michael Kerrisk

Rework the discussion of the historical CLONE_PID for clarity

Michael Kerrisk

Add NOTES heading

Michael Kerrisk

Add a reference to new veth(4) page

Michael Kerrisk

Eliminate some redundant phrasing in discussion of "fn()"

Michael Kerrisk

Combine redundant paragraphs describing child_stack==NULL

Michael Kerrisk

Note that child_stack can be NULL when using the raw system call

Michael Kerrisk

Remove a redundant paragraph

connect.2

Michael Kerrisk

Clarify that ECONNREFUSED is for stream sockets

fcntl.2

Michael Kerrisk [Jens Axboe]

Inode read-write hints persist only until the filesystem is unmounted

flock.2

Michael Kerrisk

Move NFS details to a headed subsection

Michael Kerrisk [Petr Uzel]

Placing an exclusive lock over NFS requires the file is open for writing

fork.2

Rik van Riel [Colm MacCárthaigh, Michael Kerrisk]

Document effect of MADV_WIPEONFORK

fork.2

getsid.2

setpgid.2

setsid.2

Ahmad Fatoum

Include <sys/types.h> in SYNOPSIS to obtain declaration of pid_t

fsync.2

Craig Ringer

ERRORS: add ENOSPC

getcpu.2

Michael Kerrisk

getcpu() may have an implementation in the vDSO

getpid.2

Michael Kerrisk

Mention that PID == TGID, and note contrast with TID

Michael Kerrisk

SEE ALSO: add gettid(2)

getrandom.2

Michael Kerrisk [Fabio Scotoni]

ERRORS: add ENOSYS

getrlimit.2

Michael Kerrisk [Scott Vokes]

Make it clear RLIMIT_NPROC is a limit on current number of processes

<https://twitter.com/silentbicycle/status/893849097903505409>

gettid.2

Michael Kerrisk

SEE ALSO: add getpid(2)

gettimeofday.2

Michael Kerrisk

Note that gettimeofday() may be implemented in the vDSO

ioctl_userfaultfd.2

Michael Kerrisk

Rework version information for feature bits

io_submit.2

Goldwyn Rodrigues

Add iocb details to io_submit

Add more information about the iocb structure. Explains the fields of the I/O control block structure which is passed to the io_submit() call.

Michael Kerrisk

Add cross-reference to io_getevents(2)

Michael Kerrisk

Cross reference pwritev(2) in discussion of RWF_SYNC and RWF_DSYNC

membarrier.2

Mathieu Desnoyers

Update example to take TSO into account

The existing example given specifically states that it focus on x86 (TSO memory model), but gives a read-read vs write-write ordering example, even though this scenario does not require explicit barriers on TSO.

So either we change the example architecture to a weakly-ordered architecture, or we change the example to a scenario requiring barriers on x86.

Let's stay on x86, but provide a Dekker as example instead.

Mathieu Desnoyers

Adapt the MEMBARRIER_CMD_SHARED return value documentation to reflect that it now returns -EINVAL when issued on a system configured for nohz_full.

memfd_create.2

Michael Kerrisk

Note the limit for size of 'name'

mkdir.2

Michael Kerrisk [Raghavendra D Prabhu]

ERRORS: document EINVAL error for invalid filename

mmap.2

Michael Kerrisk

Add explicit text noting that 'length' must be greater than 0
Currently, this detail is hidden in ERRORS. Make it clear in the main text.

Michael Kerrisk

SEE ALSO: add ftruncate(2)

mremap.2

Mike Kravetz [Florian Weimer, Jann Horn]

Add description of old_size == 0 functionality
Since at least the 2.6 time frame, mremap() would create a new mapping of the same pages if 'old_size == 0'. It would also leave the original mapping. This was used to create a 'duplicate mapping'.

A recent change was made to mremap() so that an attempt to create a duplicate a private mapping will fail.

Michael Kerrisk [Michal Hocko, Mike Kravetz]

BUGS: describe older behavior for old_size==0 on private mappings
Explain the older behavior, and why it changed. This is a follow-up to Mike Kravetz's patch documenting the behavior for old_size==0 with shared mappings.

Michael Kerrisk

Reformat EINVAL errors as a list

open.2

Michael Kerrisk

By contrast with O_RDONLY, no file permissions are required for O_PATH

Note one of the significant advantages of O_PATH: many of the operations applied to O_PATH file descriptors don't require read permission, so there's no reason why the open() itself should require read permission.

Michael Kerrisk

Note use of O_PATH to provide O_EXEC functionality

Michael Kerrisk

Mention O_PATH file descriptor use with fexecve(3)

Michael Kerrisk

ERRORS: document EINVAL error for invalid filename

Michael Kerrisk

Clarify that O_TMPFILE creates a *regular* file

Michael Kerrisk

Make it explicit that O_CREAT creates a regular file

Michael Kerrisk

Since glibc 2.26, the open() wrapper always uses the openat() syscall

Michael Kerrisk

Change pathname used in discussion of rationale for openat()

/path/to/file is a little confusing as a pathname

Michael Kerrisk

Make the purpose of open() a little clearer at the start of the page

open_by_handle_at.2

NeilBrown

Clarifications needed due to NFS reexport

NeilBrown [Lennart Poettering]

Clarify MAX_HANDLE_SZ

As hinted in the kernel source, MAX_HANDLE_SZ is a hint rather than a promise.

pipe.2

Michael Kerrisk [Marin H.]

Since Linux 4.5, fcntl() can be used to set O_DIRECT for a pipe

See https://bugzilla.kernel.org/show_bug.cgi?id=197917

pivot_root.2

Michael Kerrisk

SEE ALSO: add switch_root(8)

pkey_alloc.2

Breno Leitao

Fix argument order

Currently pkey_alloc() syscall has two arguments, and the very first argument is still not supported and should be set to zero.

The second argument is the one that should specify the page access rights.

ptrace.2

Michael Kerrisk

SEE ALSO: add ltrace(1)

reboot.2

Michael Kerrisk [Micha Zegan]

Fix bogus description of reboot() from non-initial PID namespace

The current text was confused (mea culpa). No signal is sent to the init() process. Rather, depending on the 'cmd' given to reboot(), the 'group_exit_code' value will set to either SIGHUP or SIGINT, with the effect that one of those signals is reported to wait() in the parent process.

See https://bugzilla.kernel.org/show_bug.cgi?id=195899

Michael Kerrisk

SEE ALSO: remove reboot(8) (synonym for halt(8)); add shutdown(8)

Michael Kerrisk

SEE ALSO: add systemctl(1), systemd(1)

recvmsg.2

sendmsg.2

Elliot Hughes

Type fixes in SYNOPSIS

[mtk: The raw system calls use "unsigned int", but the glibc wrappers have "int" for the 'flags' argument.]

sched_setaffinity.2

Michael Kerrisk

SEE ALSO: add numactl(8)

sched_yield.2

Michael Kerrisk [Peter Zijlstra]

sched_yield() is intended for use with real-time scheduling policies

seccomp.2

Michael Kerrisk [Adhemerval Zanella, Florian Weimer, Kees Cook]

Add some Caveats regarding the use of seccomp filters

Michael Kerrisk

Document the "default" filter return action

The kernel defaults to either SECCOMP_RET_KILL_PROCESS or SECCOMP_RET_KILL_THREAD for unrecognized filter return action values.

Michael Kerrisk [Kees Cook]

Change SECCOMP_RET_ACTION to SECCOMP_RET_ACTION_FULL

In Linux 4.14, the action component of the return value switched from being 15 bits to being 16 bits. A new macro, SECCOMP_RET_ACTION_FULL, that masks the 16 bits was added, to replace the older SECCOMP_RET_ACTION.

Michael Kerrisk

Explicitly note that other threads survive SECCOMP_RET_KILL_THREAD

Michael Kerrisk

SEE ALSO: add strace(1)

send.2

Grégory Vander Schueren

Add EALREADY to ERRORS

setns.2

Michael Kerrisk

SEE ALSO: add nsenter(1)

shmop.2

Yubin Ruan

Note that return value of shmat() is page-aligned

sigaction.2

Michael Kerrisk

Rework discussion of SA_SIGINFO handler arguments

Expand and rework the text a little, in particular adding a reference to sigreturn(2) as a source of further information about the ucontext argument.

Michael Kerrisk

Mention that libc sets the act.sa_restorer field

sigaltstack.2

Michael Kerrisk [Walter Harms]

Reword BUGS text to be a little clearer

Michael Kerrisk

Add explicit error handling to example code

Michael Kerrisk

Add use of sigaction() to example code

sigreturn.2

Michael Kerrisk

Make it a little clearer that a stack frame is created by the kernel

Michael Kerrisk

glibc has a simple wrapper for sigreturn() that returns ENOSYS

splice.2

Michael Kerrisk

Since Linux 2.6.31, 'fd_in' and 'fd_out' may both refer to pipes

stat.2

Michael Kerrisk [Richard Knutsson]

Use lstat() instead of stat()

It's more logical to use lstat() in the example code, since one can then experiment with symbolic links, and

also the S_IFLNK case can also occur.

NeilBrown

Correct AT_NO_AUTOMOUNT text and general revisions

Expand on the relationship between fstatat() and the other three functions, and improve the description of AT_NO_AUTOMOUNT. Specifically, both stat() and lstat() act the same way with respect to automounts, and that behavior matches fstatat() with the AT_NO_AUTOMOUNT flag.

stats.2

Michael Kerrisk

Add some comments noting filesystems that are no longer current

Michael Kerrisk

Add comments describing a few filesystem types

time.2

Michael Kerrisk

Note that time() may be implemented in the vDSO

Michael Kerrisk [Victor Porton]

Language fix-up: clarify that "tasks" means "work"

See https://bugzilla.kernel.org/show_bug.cgi?id=197183

userfaultfd.2

Mike Rapoport

BUGS: document spurious UFFD_EVENT_FORK

write.2

fsync.2

close.2

NeilBrown [Jeff Layton]

Update description of error codes

Since 4.13, errors from writeback are more reliably reported to all file descriptors that might be relevant.

Add notes to this effect, and also add detail about ENOSPC and EDQUOT which can be delayed in a similar many to EIO - for NFS in particular.

abort.3

Michael Kerrisk

Starting with glibc 2.27, abort() does not attempt to flush streams

Michael Kerrisk

SEE ALSO: add assert(3)

backtrace_symbols_fd(3)

Stefan Puiu [Walter Harms]

backtrace_symbols_fd() can trigger a call to malloc()

daemon.3

Michael Kerrisk

SEE ALSO: add daemon(7), logrotate(8)

errno.3

Michael Kerrisk

Note use of errno(1) to look up error names and numbers

Michael Kerrisk

Update error list for POSIX.1-2008

POSIX.1-2008 specified a couple of new errors not present in POSIX.1-2001.

Michael Kerrisk [Walter Harms]

Note the use of perror(3) and strerror(3)

Michael Kerrisk

Recast the advice against manually declaring 'errno'

Recast the advice against manually declaring 'errno' to a more modern perspective. It's 13 years since the original text was added, and even then it was describing old behavior.

Cast the description to be about behavior further away in time, and note more clearly that manual declaration will cause problems with modern C libraries.

Michael Kerrisk

Add some missing errors

Michael Kerrisk

Error numbers are positive values (rather than nonzero values)

POSIX.1-2008 noted the explicitly the change (to align with the C standards) that error numbers are positive, rather than nonzero.

Michael Kerrisk

Reorganize the text and add some subheadings

Restructure the text and add some subheadings for better readability. No (intentional) content changes.

Michael Kerrisk [Wesley Apteekar-Cassels]

Note that error numbers vary somewhat across architectures

Added after a patch from Wesley Apteekar-Cassels that proposed to add error numbers to the text.

Michael Kerrisk

Note the <errno.h> also provides the symbolic error names

Michael Kerrisk [Walter Harms]

Explicitly note that error numbers vary also across UNIX systems

exec.3

Michael Kerrisk

glibc 2.24 dropped CWD from the default path

Document the glibc 2.24 change that dropped CWD from the default search path employed by execlp(), execvp() and execvpe() when PATH is not defined.

fexecve.3

Michael Kerrisk

O_PATH file descriptors are also usable with fexecve()

Cristian Rodríguez

fexecve() is now implemented with execveat(2), where available

Michael Kerrisk

Add some detail on the glibc implementation of fexecve() via execveat(2)

ffs.3

Michael Kerrisk

glibc 2.27 relaxes the FTM requirements for ffs() and ffsll()

get_nprocs_conf.3

Michael Kerrisk

SEE ALSO: add nproc(1)

lround.3

Michael Kerrisk [David Eckardt]

Clarify that lround() rounds "halfway cases" away from zero

See https://bugzilla.kernel.org/show_bug.cgi?id=194601

makedev.3

Adrian Bunk

glibc has deprecated exposing the definitions via <sys/types.h>

mallinfo.3

Jakub Wilk

Fix the example

Remove reference to non-standard "tspi_hdr.h" and replace calls to functions that were declared in this header.

malloc.3

Michael Kerrisk

SEE ALSO: add valgrind(1)

popen.3

Michael Kerrisk

Add a cross reference to Caveats in system(3)

All of the same risks regarding system() also apply to popen().

pthread_detach.3

Michael Kerrisk [Rahul Bedarkar]

Improve sentence describing freeing of resources on process termination

As reported by Rahul, the existing sentence could be read as meaning that resources of joined and terminated detached threads are freed only at process termination. Eliminate that possible misreading.

pthread_yield.3

Michael Kerrisk [Peter Zijlstra]

pthread_yield() is intended for use with real-time scheduling policies

setlocale.3

Michael Kerrisk [Kištof Želechovski]

The standards do not specify all of the locale categories

socketmark.3

Seonghun Lim

Fix cruft in code example

stdio.3

Michael Kerrisk

Use proper section cross references in function list

Michael Kerrisk

Remove crufty reference to pc(1)

sysconf.3

Michael Kerrisk

Mention get_nprocs_conf(3)

Mention get_nprocs_conf(3) in discussion of _SC_NPROCESSORS_CONF and _SC_NPROCESSORS_ONLN.

system.3

Michael Kerrisk [Bastien Roucaries]

Create a "Caveats" subsection to hold warnings about the use of system()

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=882222>

Michael Kerrisk [Bastien Roucaries]

Mention PATH explicitly in discussion of system() and set-UID programs

Michael Kerrisk [Bastien Roucaries]

Note that user input for system() should be carefully sanitized

Michael Kerrisk

Mention file capabilities in discussion of privileged programs

Michael Kerrisk

Correctly note which shell Debian uses as (noninteractive) /bin/sh

core.5

Michael Kerrisk

Add some notes on systemd and core dumps

Michael Kerrisk

Dumps are not produced if core_pattern is empty and core_uses_pid is 0

Michael Kerrisk [Per Böhlin]

RLIMIT_CORE is not enforced when piping core dump to a program

Michael Kerrisk

SEE ALSO: add systemd-coredump(8)

Michael Kerrisk

SEE ALSO: add coredumpctl(1)

filesystems.5

Michael Kerrisk [Jonny Grant]

Replace crufty URL reference for 'smb' with up-to-date URL

Michael Kerrisk [Jonny Grant]

Refer to VFAT as an extended FAT (not DOS) filesystem

proc.5

Michael Kerrisk [Miklos Szered, Ram Pai]

Correct the description of the parent mount ID for /proc/PID/mountinfo

Oliver Ebert

Add mmap-exclusive bit for /proc/[pid]/pagemap

Marcus Folkesson

Update description of /proc/<pid>/oom_score

Lucas Werkmeister

Clarify permissions in /proc/[pid]/fd/

Michael Kerrisk

Add reference to pid_namespaces(7) for /proc/sys/kernel/ns_last_pid

shells.5

Michael Kerrisk

SEE ALSO: add pam_shells(8)

sysfs.5

Michael Kerrisk

Add a brief explanation of /sys/kernel

Michael Kerrisk

Add a brief description of /sys/class/net

Michael Kerrisk

Add a brief description of /sys/kernel/mm

Michael Kerrisk

Add brief description of /sys/kernel/debug/tracing

Michael Kerrisk

Add a description of /sys/kernel/mm/hugepages

arp.7

Michael Kerrisk

SEE ALSO: add arpd(8)

capabilities.7

Michael Kerrisk

Add a reference to xattr(7) in the discussion of extended attributes

Michael Kerrisk

SEE ALSO: add captest(8)

epoll.7

Michael Kerrisk

Note existence of kcmp() KCMP_EPOLL_TFD operation

fifo.7

Michael Kerrisk

Refer reader to pipe(7) for details of I/O semantics of FIFOs

hier.7

Michael Kerrisk

SEE ALSO: add file-hierarchy(7)

icmp.7

Michael Kerrisk

SEE ALSO: add rdisc(8)

man-pages.7

Michael Kerrisk

Note that "x86-64" is generally preferred over "x86_64"

G. Branden Robinson

Add a use case for real minus character

namespaces.7

Michael Kerrisk

Add a reference to new veth(4) page

Michael Kerrisk

EXAMPLE: refer also to example in clone(2)

pid_namespaces.7

Michael Kerrisk

SEE ALSO: add reboot(2)

Add because reboot(2) has special semantics for non-initial

PID namespaces.

pthread.7

Michael Kerrisk

SEE ALSO: add pthread_spin_init(3) and pthread_spin_lock(3)

socket.7

Michael Kerrisk [Petr Malat, Tobias Klausmann]

Correct the description of SO_RXQ_OVFL

standards.7

Michael Kerrisk

SEE ALSO: add getconf(1), confstr(3), pathconf(3), sysconf(3)

user_namespaces.7

Christian Brauner [Michael Kerrisk]

Document new 340 line idmap limit

ld.so.8

Michael Kerrisk [Yubin Ruan]

Simplify language around conferring capabilities

The statement "conferring permitted or effective capabilities" to the process is somewhat redundant. Binaries with capabilities confer capabilities only to those process capability sets, so it's simpler to just say "confers capabilities to the process".

===== Changes in man-pages-4.15 =====

Released: 2018-02-02, Palo Alto

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

New and rewritten pages

s390_sthyi.2

QingFeng Hao [Michael Kerrisk]

New page for s390-specific s390_sthyi(2)

network_namespaces.7

Michael Kerrisk

New page describing network namespaces

Based on content moved from namespaces(7)

vsock.7

Stefan Hajnoczi [Jorgen Hansen, Michael Kerrisk]

Document the VSOCK socket address family

Newly documented interfaces in existing pages

cgroups.7

Michael Kerrisk [Tejun Heo]

Document cgroups v2 "thread mode"

Michael Kerrisk [Tejun Heo]

Document cgroup v2 delegation via the 'nsdelegate' mount option

Michael Kerrisk

Document the cgroup.max.depth and cgroup.max.descendants files

Michael Kerrisk

Document 'release_agent' mount option

Michael Kerrisk [Roman Gushchin]

Document /sys/kernel/cgroup/delegate

Michael Kerrisk [Roman Gushchin]

Document /sys/kernel/cgroup/features

Michael Kerrisk [Roman Gushchin]

Document cgroups v2 cgroup.stat file

Global changes

Various pages

G. Branden Robinson

Standardize on "nonzero"

Also add this term to the style guide in man-pages(7).

Changes to individual pages

bpf.2

Nikolay Borisov

Sync list of supported map types with 4.14 kernel

copy_file_range.2

Michael Kerrisk

Library support was added in glibc 2.27

Shawn Landden

glibc provides a user-space emulation where the system call is absent

Florian Weimer

EFBIG errors are possible, similar to write(2)

Michael Kerrisk

ERRORS: add EISDIR

Michael Kerrisk

Order ERRORS alphabetically

Michael Kerrisk

Add comment to code example explaining use of syscall(2)

fcntl.2

read.2

write.2

NeilBrown

Document "Lost locks" as cause for EIO.

If an advisory lock is lost, then read/write requests on any affected file descriptor can return EIO - for NFSv4 at least.

memfd_create.2

Michael Kerrisk

glibc support for memfd_create() was added in version 2.27

mlock.2

Michael Kerrisk

Make details for MLOCK_ONFAULT a little more explicit

Michael Kerrisk

glibc support for mlock2() is added in version 2.27

mmap.2

John Hubbard [Michael Hocko]

MAP_FIXED is no longer discouraged

MAP_FIXED has been widely used for a very long time, yet the man page still claims that "the use of this option is discouraged".

John Hubbard

MAP_FIXED updated documentation

-- Expand the documentation to discuss the hazards in enough detail to allow avoiding them.

-- Mention the upcoming MAP_FIXED_SAFE flag.

-- Enhance the alignment requirement slightly.

mount.2

Keno Fischer [Michael Kerrisk]

Add EINVAL error condition when MS_BINDING MNT_LOCKED submounts

mprotect.2

pkey_alloc.2

Michael Kerrisk

Glibc support for memory protection keys was added in version 2.27

perf_event_open.2

Michael Kerrisk

SEE ALSO: add perf(1)

pkey_alloc.2

Michael Kerrisk

Clarify description of pkey_alloc() 'flags' argument

prctl.2

Michael Kerrisk

Defer to capabilities(7) for discussion of the "keep capabilities" flag

recvmsg.2

sendmsg.2

Nikola Forró

Point out that error handling is unreliable

seccomp.2

Michael Kerrisk

Clarify that SECCOMP_RET_TRAP SIGSYS signal is thread-directed

syscalls.2

Michael Kerrisk

Add s390-specific s390_sthyi(2) to syscall list

unshare.2

Michael Kerrisk

Clarify that EUSERS occurred only until kernel 4.8

errno.3

Michael Kerrisk

'errno -s' can be used to search for errors by string in description

Michael Kerrisk

Add Linux error text corresponding to ENOMEM

fgetpwent.3

Michael Kerrisk

Add missing ATTRIBUTES preamble

fts.3

Michael Kerrisk [Pradeep Kumar]

fts_pathlen = strlen(fts_path) + strlen(fts_name)

fuse.4

Michael Kerrisk

Places errors in alphabetical order (no content changes)

veth.4

Michael Kerrisk

Add network_namespaces(7)

sysfs.5

Michael Kerrisk

Refer to cgroups(7) for information about files in /sys/kernel/cgroup

capabilities.7

Michael Kerrisk

Note which capability sets are affected by SECBIT_NO_SETUID_FIXUP

Note explicitly that SECBIT_NO_SETUID_FIXUP is relevant for the permitted, effective, and ambient capability sets.

Michael Kerrisk

Deemphasize the ancient prctl(2) PR_SET_KEEPCAPS command

The modern approach is SECBITS_KEEP_CAPS.

Michael Kerrisk

Clarify effect of CAP_SETFCAP

Make it clear that CAP_SETFCAP allows setting arbitrary capabilities on a file.

Michael Kerrisk

Clarify which capability sets are effected by SECBIT_KEEP_CAPS

This flag has relevance only for the process permitted and effective sets.

Michael Kerrisk

Rephrase CAP_SETPCAP description

* Mention kernel versions.

* Place current kernel behavior first

Michael Kerrisk

SECBIT_KEEP_CAPS is ignored if SECBIT_NO_SETUID_FIXUP is set

Michael Kerrisk

Ambient set is also cleared when UIDs are set to nonzero value

cgroups.7

Michael Kerrisk

Add a more complete description of cgroup v1 named hierarchies

Michael Kerrisk

Add a section on unmounting cgroup v1 filesystems

Michael Kerrisk

Add subsection describing cgroups v2 subtree delegation

Michael Kerrisk

Mention ENOENT error that can occur when writing to subtree_control file

Michael Kerrisk

Add list of currently available version 2 controllers

Nikolay Borisov

Add information about RDMA controller

Michael Kerrisk

Rewrite the description of cgroup v2 subtree control

Michael Kerrisk [Tejun Heo]

Note Linux 4.11 changes to cgroup v2 delegation containment rules

Michael Kerrisk

systemd(1) nowadays automatically mounts the cgroup2 filesystem

Michael Kerrisk

Clarify that cgroup.controllers is read-only

Michael Kerrisk

Elaborate a little on problems of splitting threads across cgroups in v1

Michael Kerrisk [Tejun Heo]

Tweak the description of delegation of cgroup.subtree_control

ip.7

Ricardo Biehl Pasquali

INADDR_* values cannot be assigned directly to 's_addr'

Michael Kerrisk

s/INADDR_ANY/INADDR_LOOPBACK/ in discussion of htonl()

INADDR_LOOPBACK is a better example, since it is not byte-order neutral.

namespaces.7

network_namespaces.7

Michael Kerrisk

Move content from namespaces(7) to network_namespaces(7)

pid_namespaces.7

Michael Kerrisk

SEE ALSO: add mount_namespaces(7)

sched.7

Michael Kerrisk [Andrea Parri]

Correctly describe effect of priority changes for RT threads

The placement of a thread in the run queue for its new priority depends on the direction of movement in priority.

(This appears to contradict POSIX, except in the case of pthread_setschedprio().)

user_namespaces.7

Michael Kerrisk

Mention NS_GET_OWNER_UID ioctl() operation

===== Changes in man-pages-4.16 =====

Released: 2018-04-30, Munich

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The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

membarrier.2

Mathieu Desnoyers [Michael Kerrisk]

Document new membarrier commands introduced in Linux 4.16

Document the following membarrier commands introduced in Linux 4.16:

MEMBARRIER_CMD_GLOBAL_EXPEDITED

(the old enum label MEMBARRIER_CMD_SHARED is now an alias to preserve header backward compatibility)

MEMBARRIER_CMD_REGISTER_GLOBAL_EXPEDITED

MEMBARRIER_CMD_PRIVATE_EXPEDITED_SYNC_CORE

MEMBARRIER_CMD_REGISTER_PRIVATE_EXPEDITED_SYNC_CORE

mmap.2

Jan Kara [Ross Zwisler, Michael Kerrisk]

Add description of MAP_SHARED_VALIDATE and MAP_SYNC

Michal Hocko [John Hubbard, Michael Kerrisk, Jann Horn]

Document new MAP_FIXED_NOREPLACE flag

4.17+ kernels offer a new MAP_FIXED_NOREPLACE flag which allows the caller to atomically probe for a given address range.

readv.2

io_submit.2

Jürg Billeter

Document RWF_APPEND added in Linux 4.16

capabilities.7

Michael Kerrisk

Describe file capability versioning

Michael Kerrisk [Serge E. Hallyn]

Document namespaced-file capabilities

[There's still more work to be done on this new text]

Changes to individual pages

bpf.2

Michael Kerrisk

Update list of architectures that support JITed eBPF

And note kernel version numbers where support is added.

Michael Kerrisk

Kernel 4.15 added CONFIG_BPF_JIT_ALWAYS_ON

This causes the JIT compiler to be always on and forces bpf_jit_enable to 1.

execve.2

Michael Kerrisk

Note that describing execve as "executing a new process" is misleading

This misdescription is so common that it's worth calling it out explicitly.

Michael Kerrisk

More explicitly describe effect of execve() in the opening paragraph

fallocate.2

Michael Kerrisk

Since Linux 4.16, Btrfs supports FALLOC_FL_ZERO_RANGE

getrlimit.2

Michael Kerrisk

CAP_SYS_RESOURCE capability is required in *initial user namespace*

io_submit.2

Michael Kerrisk

Add kernel version numbers for various 'aio_rw_flags' flags

Michael Kerrisk

Place 'aio_rw_flags' in alphabetical order

mmap.2

Jann Horn

MAP_FIXED is okay if the address range has been reserved

Clarify that MAP_FIXED is appropriate if the specified address range has been reserved using an existing mapping, but shouldn't be used otherwise.

Michael Kerrisk

Move the text on MAP_FIXED to NOTES

This text has become rather long, making it somewhat unwieldy in the discussion of the mmap() flags. Therefore, move it to NOTES, with a pointer in DESCRIPTION referring the reader to NOTES.

Michael Kerrisk [Heinrich Schuchardt]

Clarify that when addr==NULL, address chosen by kernel is page-aligned

Michael Kerrisk

Add a little historical detail on the obsolete MAP_DENYWRITE

mount.2

Michael Kerrisk

ERRORS: add EBUSY for the case of trying to stack same mount twice

Michael Kerrisk

Remove a couple of obsolete EBUSY errors

As far as I can tell, these EBUSY errors disappeared with the addition of stackable mounts in Linux 2.4.

msgget.2

semget.2

shmget.2

Michael Kerrisk

The purpose of "flags" == 0 is to obtain ID of an existing IPC object

This was implied in these pages, but the meaning of "flags" == 0

could be more explicit, as indicated by questions such as

<https://stackoverflow.com/questions/49833569/flag-value-of-semget-function>

open.2

Jann Horn

Document more -ETXTBSY conditions

Jakub Wilk

Add missing argument for snprintf() in example code

perf_event_open.2

Song Liu

Add type kprobe and uprobe

Two new types kprobe and uprobe are being added to

perf_event_open(), which allow creating kprobe or

uprobe with perf_event_open. This patch adds

information about these types.

ptrace.2

Jann Horn

Copy retval info for SECCOMP_GET_FILTER to right section

The "RETURN VALUE" section made a claim that was incorrect for

PTRACE_SECCOMP_GET_FILTER. Explicitly describe the behavior of

PTRACE_SECCOMP_GET_FILTER in the "RETURN VALUE" section (as

usual), but leave the now duplicate description in the section

describing PTRACE_SECCOMP_GET_FILTER, since the

PTRACE_SECCOMP_GET_FILTER section would otherwise probably become

harder to understand.

readv.2

Michael Kerrisk

Remove redundant sentence

seccomp.2

Michael Kerrisk

Note that execve() may change syscall numbers during life of process

On a multiarch/multi-ABI platform such as modern x86, each

architecture/ABI (x86-64, x32, i386) has its own syscall numbers,

which means a seccomp() filter may see different syscall numbers

over the life of the process if that process uses execve() to

execute programs that has a different architectures/ABIs.

Michael Kerrisk

Note which architectures support seccomp BPF

Michael Kerrisk

In EXAMPLE, clearly note that x32 syscalls are \geq X32_SYSCALL_BIT

shutdown.2

Carsten Grohmann

SEE ALSO: add close(2)

syscall.2

Adam Borowski

Add riscv

wait.2

Michael Kerrisk [Robin Kuzmin]

wait() and waitpid() block the calling thread (not process)

wait4.2

Michael Kerrisk [Martin Mares]

Soften the warning against the use of wait3()/wait4()

These functions are nonstandard, but there is no replacement.

See https://bugzilla.kernel.org/show_bug.cgi?id=199215

crypt.3

encrypt.3

Carlos O'Donell [Michael Kerrisk]

Add notes about _XOPEN_CRYPT

The distribution may choose not to support _XOPEN_CRYPT in the case that the distribution has transitioned from glibc crypt to libxcrypt.

fseek.3

Michael Kerrisk [Andy Owen]

ERRORS: EBADF should be ESPIPE

Michael Kerrisk

Improve EPIPE error text

getcwd.3

Carlos O'Donell

Mention that "(unreachable)" is no longer returned for glibc \geq 2.27.

makedev.3

Michael Kerrisk

Since glibc 2.28, <sys/types.h> no longer defines these macros

pthread_create.3

Frederic Brault

Note default thread stack size for several architectures

tsearch.3

Jann Horn

Clarify items vs nodes

The manpage claimed that `tsearch()` returns a pointer to a data item. This is incorrect; `tsearch()` returns a pointer to the corresponding tree node, which can also be interpreted as a pointer to a pointer to the data item.

Since this API is quite unintuitive, also add a clarifying sentence.

Jann Horn

`tdelete()` can return dangling pointers

POSIX says that deleting the root node must cause `tdelete()` to return some unspecified non-NULL pointer. Glibc implements it by returning a dangling pointer to the (freed) root node.

Therefore, explicitly note that `tdelete()` may return bad pointers that must not be accessed.

elf.5

Michael Kerrisk

SEE ALSO: add `patchelf(1)`

filesystems.5

Michael Kerrisk

Add an entry for `tmpfs(5)`

group.5

Michael Kerrisk

SEE ALSO: add `vigr(8)`

passwd.5

Michael Kerrisk

SEE ALSO: add `vipw(8)`

sysfs.5

Michael Kerrisk

Add brief note on `/sys/fs/smackfs`

tmpfs.5

Mike Frysinger

Document current mount options

Some of this content is moved from the `mount(8)` man page.

Style was based on `proc(5)` sections.

Michael Kerrisk

Remove reference to `mount(8)` for discussion of mount options

The mount options are now described in this page.

Michael Kerrisk

SEE ALSO: add Documentation/vm/transhuge.txt

Michael Kerrisk

Reformat 'huge' and 'mpol' mount option values as lists

Michael Kerrisk

Describe 'mpol' mount options

Based on text from Documentation/filesystems/tmpfs.txt.

Michael Kerrisk

Document 'huge' mount options

Based on text from Documentation/vm/transhuge.txt.

Michael Kerrisk

SEE ALSO: add set_mempolicy(2)

Michael Kerrisk

Document mpol=local mount option

capabilities.7

Michael Kerrisk

Remove redundant mention of PTRACE_SECCOMP_GET_FILTER

cgroups.7

Michael Kerrisk

cgroup.events transitions generate POLLERR as well as POLLPRI

mount_namespaces.7

Michael Kerrisk

Note another case where shared "peer groups" are formed

namespaces.7

Michael Kerrisk [Konstantin Khlebnikov]

Mention that device ID should also be checked when comparing NS symlinks

When comparing two namespaces symlinks to see if they refer to the same namespace, both the inode number and the device ID should be compared. This point was already made clear in `ioctl_ns(2)`, but was missing from this page.

Michael Kerrisk

Note an idiosyncrasy of `/proc/[pid]/ns/pid_for_children`
`/proc/[pid]/ns/pid_for_children` has a value only after first child is created in PID namespace. Verified by experiment.

network_namespaces.7

Michael Kerrisk

Network namespaces isolate the UNIX domain abstract socket namespace

Michael Kerrisk

Add cross reference to `unix(7)`

For further information on UNIX domain abstract sockets.

posixoptions.7

Carlos O'Donell

Expand XSI Options groups

We define in detail the X/Open System Interfaces i.e. `_XOPEN_UNIX` and all of the X/Open System Interfaces (XSI) Options Groups.

The XSI options groups include encryption, realtime, advanced realtime, realtime threads, advanced realtime threads, tracing, streams, and legacy interfaces.

Michael Kerrisk

Use a more consistent, less cluttered layout for option lists

Michael Kerrisk

Make function lists more consistent and less cluttered

Use more consistent layout for lists of functions, and remove punctuation from the lists to make them less cluttered.

socket.7

Michael Kerrisk [Tomi Salminen]

Fix error in `SO_INCOMING_CPU` code snippet

The last argument is passed by value, not reference.

time.7

Michael Kerrisk [Enrique Garcia]

Mention `clock_gettime()/clock_settime()` rather than `[gs]etimeofday()`

`gettimeofday()` is declared obsolete by POSIX. Mention instead the modern APIs for working with the realtime clock.

See https://bugzilla.kernel.org/show_bug.cgi?id=199049

unix.7

Michael Kerrisk [Rusty Russell]

ERRORS: add `EBADF` for sending closed file descriptor with `SCM_RIGHTS`

vdso.7

Michael Kerrisk

VDSO symbols (system calls) are not visible to `seccomp(2)` filters

xattr.7

Michael Kerrisk

SEE ALSO: add `selinux(8)`

ld.so.8

Mike Frysinger

Make lack of separator escaping explicit

Make it clear that the delimiters in `LD_PRELOAD`, `LD_LIBRARY_PATH`, and `LD_AUDIT` cannot be escaped so people don't try various methods (such as `\:`) to workaroud it.

Michael Kerrisk

Remove unneeded mention of `PATH` in discussion of `LD_LIBRARY_PATH`

This brief sentence doesn't add value to the text.

===== Changes in man-pages-5.00 =====

Released: 2019-03-06, Munich

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Apologies if I missed anyone!

New and rewritten pages

s390_guarded_storage.2

Eugene Syromyatnikov

New page documenting s390_guarded_storage(2) s390-specific system call

address_families.7

Michael Kerrisk [Eugene Syromyatnikov]

New page that contains details of socket address families

There is too much detail in socket(2). Move most of it into
a new page instead.

bpf-helpers.7

Michael Kerrisk [Daniel Borkmann, Quentin Monnet]

Add new man page for eBPF helper functions
(autogenerated from kernel source files)

Removed Pages

mdoc.7

mdoc.samples.7

Michael Kerrisk [Ingo Schwarze]

Remove mdoc(7) and mdoc.samples(7)
groff_mdoc(7) from the groff project provides a better
equivalent of mdoc.samples(7) and the 'mandoc' project
provides a better mdoc(7). And nowadays, there are virtually
no pages in "man-pages" that use mdoc markup.

Newly documented interfaces in existing pages

fanotify_init.2

fanotify.7

nixiaoming [Amir Goldstein, Michael Kerrisk]

Document FAN_REPORT_TID
fanotify_init.2: add new flag FAN_REPORT_TID
fanotify.7: update description of member pid in
struct fanotify_event_metadata

Amir Goldstein

Document FAN_MARK_FILESYSTEM

Monitor fanotify events on the entire filesystem.

Matthew Bobrowski [Amir Goldstein]

Document FAN_OPEN_EXEC and FAN_OPEN_EXEC_PERM

io_submit.2

Adam Manzanares

Document IOCB_FLAG_IOPRIO

msgctl.2

semctl.2

shmctl.2

Davidlohr Bueso [Joe Lawrence, Michael Kerrisk]

Document STAT_ANY commands

prctl.2

Konrad Rzeszutek Wilk [Michael Kerrisk]

Document PR_SET_SPECULATION_CTRL and PR_GET_SPECULATION_CTRL

sched_setattr.2

Claudio Scordino [Michael Kerrisk]

Document SCHED_FLAG_DL_OVERRUN and SCHED_FLAG_RECLAIM

socket.2

Tobias Klauser

Document AF_XDP

Document AF_XDP added in Linux 4.18.

inotify.7

Henry Wilson

Document IN_MASK_CREATE

unix.7

Michael Kerrisk

Document SO_PASSSEC

Michael Kerrisk

Document SCM_SECURITY ancillary data

New and changed links

reallocarray.3

Michael Kerrisk

New link to malloc(3)

precedence.7

Josh Triplett

Add as a redirect to operator.7

Global changes

Various pages

Michael Kerrisk [G. Branden Robinson]

Use `\e` rather than `\\` to get a backslash

Various pages

Michael Kerrisk [Bjarni Ingi Gislason, G. Branden Robinson]

Use zerowidth space in appropriate locations

Various pages

Michael Kerrisk

Clarify the distinction between "file descriptor" and "file description"

Various pages

Mike Rapoport

Update paths for in-kernel memory management documentation files

A few pages

Michael Kerrisk

Change references to '2.6.0-test*' series kernels to just '2.6.0'

Changes to individual pages

iconv.1

Marko Myllynen

SEE ALSO: add `uconv(1)`

localedef.1

Howard Johnson

Note that `-f` and `-c`, are reversed from what you might expect

time.1

Michael Kerrisk [Johannes Altmanninger]

Document the `-q/--quiet` option

Jakub Wilk

Update bug reporting address

bpf.2

Tobias Klauser

Update JIT support list for Linux 4.18

JIT support for x86-32 was during the Linux 4.18 release cycle.

Also correct the entry for MIPS (only MIPS64 is supported).

Oded Elisha

Fix bug in example

Quentin Monnet

SEE ALSO: add bpf-helpers(7)

capget.2

Michael Kerrisk

Remove crufty sentence suggesting use of deprecated functions

Remove crufty sentence suggesting use of deprecated capsetp(3) and capgetp(3); the manual page for those functions has long (at least as far back as 2007) noted that they are deprecated.

Michael Kerrisk

Remove first paragraph, which repeats details from capabilities(7)

chroot.2

Michael Kerrisk

Mention /proc/[pid]/root

clock_getres.2

Michael Kerrisk [Jens Thoms Toerring]

CLOCK_MONOTONIC_RAW does not count while the system is suspended

Michael Kerrisk [Jens Thoms Toerring]

On Linux CLOCK_MONOTONIC counts time that the system has run since boot

Michael Kerrisk [Jens Thoms Toerring]

CLOCK_MONOTONIC does not count while the system is suspended

Michael Kerrisk

ERRORS: add EINVAL error for noncanonical clock_settime() value

clone.2

Michael Kerrisk

Rework discussion of threads and signals

The discussion is phrased in terms of signals sent using kill(2), but applies equally to a signal sent by the kernel.

Jann Horn

Pending CLONE_NEWPID prevents thread creation

Michael Kerrisk

Clarify the discussion of threads and signals

And explicitly introduce the terms "process-directed" and "thread-directed" signals.

Eugene Syromyatnikov

Add information about clone and clone2 on IA-64

Michael Kerrisk

ERRORS: EINVAL occurs with CLONE_NEWUSER if !CONFIG_USER_NS

connect.2

Benjamin Peterson

Document error semantics of nonblocking UNIX domain sockets

epoll_ctl.2

Michael Kerrisk

Use the term "interest list" consistently

epoll_wait.2

Michael Kerrisk

Clarify the behavior when `epoll_wait()`-ing on an empty interest list

Michael Kerrisk

Note that `epoll_wait()` round robins through the set of ready descriptors

eventfd.2

Michael Kerrisk

Move text noting that `eventfd()` creates a FD earlier in the page

fcntl.2

Michael Kerrisk

Actual pipe capacity may in practice be less than nominal capacity

The number of bytes that can be written to the pipe may be less (sometimes substantially less) than the nominal capacity.

Eugene Syromyatnikov

Mention that `l_sysid` is not used even if present

Michael Kerrisk

Briefly explain the meaning of the '`l_sysid`' field in '`struct flock`'

futex.2

Benjamin Peterson

Make the example use C11 atomics rather than GCC builtins

getcpu.2

Tobias Klauser [Michael Kerrisk]

`getcpu()` now has a glibc wrapper; remove mention of `syscall(2)`

The glibc wrapper was added in glibc 2.29, release on 1 Feb 2019.

getgid.2

getpid.2

getuid.2

pipe.2

syscall.2

Eugene Syromyatnikov [Michael Kerrisk]

Describe 2nd return value peculiarity

Some architectures (ab)use second return value register for additional return value in some system calls. Let's describe this.

getgroups.2

Michael Kerrisk

Note that a process can drop all groups with: `setgroups(0, NULL)`

getrlimit.2

Eugene Syromyatnikov

Note that setrlimit(RLIMIT_CPU) doesn't fail

Michael Kerrisk

Resource limits are process-wide attributes shared by all threads

This was already noted in pthreads(7), but bears repeating here.

Eugene Syromyatnikov

Correct information about large limits on 32-bit architectures

gettid.2

Michael Kerrisk

Glibc provides a wrapper since version 2.30

gettimeofday.2

Michael Kerrisk

ERRORS: add EINVAL for noncanonical 'tv' argument to gettimeofday()

gettimeofday.2

clock_getres.2

Michael Kerrisk [Jens Thoms Toerring]

ERRORS: EINVAL can occur if new real time is less than monotonic clock

getxattr.2

removexattr.2

setxattr.2

Michael Kerrisk [Andreas Gruenbacher, Enrico Scholz]

ERRORS: replace ENOATTR with ENODATA

See also https://bugzilla.kernel.org/show_bug.cgi?id=201995

inotify_add_watch.2

Paul Millar

Add IN_ONLYDIR based error

Henry Wilson

Note errors that can occur for IN_MASK_CREATE

io_submit.2

Jeff Moyer

Fix the description of aio_data

aio_data is not a kernel-internal field.

madvise.2

Michal Hocko [Niklas Hambüchen]

MADV_FREE clarify swapless behavior

memfd_create.2

Marc-André Lureau

Update hugetlb file-sealing support

Lucas De Marchi

Fix header for memfd_create()

Joseph C. Sible

_GNU_SOURCE is required

mmap.2

Elliott Hughes

Explicitly state that the fd can be closed

Jann Horn [Michal Hocko, William Kucharski]

Fix description of treatment of the hint

The current manpage reads as if the kernel will always pick a free space close to the requested address, but that's not the case.

mount.2

Michael Kerrisk

Clearly distinguish per-mount-point vs per-superblock mount flags

Michael Kerrisk

MS_SILENT is ignored when changing propagation type

Michael Kerrisk

Attempts to change MS_SILENT setting during remount are silently ignored

Michael Kerrisk [Harry Mallon]

Document EROFS for read-only filesystems

See https://bugzilla.kernel.org/show_bug.cgi?id=200649

Michael Kerrisk

Clarify that per-superblock flags are shared during remount

Michael Kerrisk

Remove crufty sentence about MS_BIND + MS_REMOUNT

Michael Kerrisk

Mention /proc/PID/mountinfo

Many people are unaware of the /proc/PID/mountinfo file. Provide a helpful clue here.

Michael Kerrisk

Mandatory locking also now requires CONFIG_MANDATORY_FILE_LOCKING

Michael Kerrisk [Simone Piccardi]

Add MS_STRICTATIME to list of flags that can be used in remount

Michael Kerrisk

EACCES: note some reasons why a filesystem may be read-only

Michael Kerrisk

SEE ALSO: add ioctl_iflags(2)

msgop.2

Michael Kerrisk

Correct the capability description for msgsnd() EACCESS error

nfsservctl.2

Michael Kerrisk

Add VERSIONS section noting that this system call no longer exists

open.2

Lucas Werkmeister

Document ENXIO for sockets

Michael Kerrisk

Clarify a special use case of O_NONBLOCK for devices

Eugene Syromiatnikov

Mention presence of unused O_RSYNC definition

O_RSYNC is defined in <asm/fcntl.h> on HP PA-RISC, but is not used anyway.

Eugene Syromiatnikov

Document FASYNC usage in Linux UAPI headers

Andrew Price

Remove O_DIRECT-related quotation

Remove a section that adds no benefit to the discussion of O_DIRECT.

Michael Kerrisk [Robin Kuzmin]

Clarify that O_NONBLOCK has no effect on poll/epoll/select

perf_event_open.2

Vince Weaver [Wang Nan]

Document the PERF_EVENT_IOC_PAUSE_OUTPUT ioctl

The PERF_EVENT_IOC_PAUSE_OUTPUT ioctl was introduced in Linux 4.7.

Vince Weaver

Fix wording in multiplexing description

Vince Weaver

Clarify exclude_idle

Vince Weaver

Document the PERF_EVENT_IOC_QUERY_BPF ioctl

Vince Weaver

Document the PERF_EVENT_IOC_MODIFY_ATTRIBUTES ioctl

Vince Weaver

Fix prctl behavior description

pivot_root.2

Elvira Khabirova

Explain the initramfs case and point to switch_root(8)

Joseph Sible [Joseph C. Sible]

Document EINVAL if root is rootfs

pkey_alloc.2

Michael Kerrisk [Szabolcs Nagy]

Switch to glibc prototype in SYNOPSIS

poll.2

Michael Kerrisk

Note that poll() and ppoll() are not affected by O_NONBLOCK

posix_fadvise.2

Eugene Syromyatnikov

Describe the difference between `fadvice64/fadvice64_64`

prctl.2

Benjamin Peterson

`PR_SET_MM_EXE_FILE` may now be used as many times as desired

Michael Kerrisk

Add some further historical details on `PR_SET_MM_EXE_FILE`

Michael Kerrisk [Jann Horn]

Explain the circumstances in which the parent-death signal is sent

Michael Kerrisk

Rework the `PR_SET_PDEATHSIG` description a little, for easier readability

Michael Kerrisk

Add additional info on `PR_SET_PDEATHSIG`

The signal is process directed and the `siginfo_t->si_pid` field contains the PID of the terminating parent.

Michael Kerrisk

Note `libcap(3)` APIs for operating on ambient capability set
(However, the `libcap` APIs do not yet seem to have manual pages...)

Michael Kerrisk

Mention `libcap` APIs for operating on capability bounding set

ptrace.2

Dmitry V. Levin

Do not say that `PTRACE_O_TRACESYSGOOD` may not work

Jann Horn

BUGS: `ptrace()` may set `errno` to zero

readdir.2

Eugene Syromyatnikov

Fix struct `old_linux_dirent` in accordance with current definition

readv.2

Xiao Yang [Florian Weimer]

Fix wrong `errno` for an unknown flag

rename.2

Michael Kerrisk

`glibc 2.28` adds library support for `renameat2()`

Tobias Klauser

Add feature test macro for `renameat2()`

The `glibc` wrapper for `renameat2()` was added in `glibc 2.28` and requires `_GNU_SOURCE`.

Eugene Syromyatnikov

Some additional notes regarding `RENAME_WHITEOUT`

Lucas Werkmeister [Michael Kerrisk]

Add kernel versions for `RENAME_NOREPLACE` support

Michael Kerrisk

Rework list of supported filesystems for RENAME_NOREPLACE

Tobias Klauser

renameat2() now has a libc wrapper; remove mention of syscall(2)

s390_runtime_instr.2

Eugene Syromyatnikov

Add a note about runtime_instr.h availability

s390_sthyi.2

Eugene Syromyatnikov [Heiko Carstens]

Some minor additions

sched_setattr.2

Michael Kerrisk

Add a bit more detail for SCHED_DEADLINE

sched_setparam.2

Michael Kerrisk

Clarify that scheduling parameters are per-thread (not per-process)

seccomp.2

Michael Kerrisk

(Briefly) document SECCOMP_FILTER_FLAG_SPEC_ALLOW

Michael Kerrisk

SEE ALSO: add bpfc(1)

select.2

Michael Kerrisk

BUGS: the use of value-result arguments is a design bug

Michael Kerrisk [Robin Kuzmin]

Note that select() and pselect() are not affected by O_NONBLOCK

select_tut.2

Michael Kerrisk [Antonio Chirizzi]

Diagnose inet_aton() errors with simple fprintf() (not perror())

setgid.2

Michael Kerrisk

Clarify EPERM capability requirements with respect to user namespaces

setns.2

Michael Kerrisk

When joining a user namespace, it must be a descendant user namespace

Michael Kerrisk

Note capability requirements for changing PID namespace

Note capability requirements for changing network, IPC, or UTS namespace

Note capability requirements for changing cgroup namespace

Michael Kerrisk

Some text restructuring and reordering

set_thread_area.2

Eugene Syromyatnikov

Mention related prctl() requests in SEE ALSO

Eugene Syromyatnikov

Mention that get_thread_area() is also Linux-specific

Eugene Syromyatnikov

Describe set_thread_area()/get_thread_area() on m68k/MIPS

setuid.2

Michael Kerrisk

Clarify EPERM capability requirements with respect to user namespaces

sigaction.2

Eugene Syromyatnikov [Michael Kerrisk]

Describe obsolete usage of struct sigcontext as signal handler argument

sigsuspend.2

Michael Kerrisk

Clarify that sigsuspend() suspends the calling *thread*

socket.2

Michael Kerrisk

Remove references to external docs

This information is all in the new address_families(7)

Michael Kerrisk

Add cross reference to address_families(7)

Eugene Syromyatnikov

Reinstate AF_VSOCK mention

Michael Kerrisk

Simplify list of address families

Remove many of the details that are in address_families(7)

Nikola Forró

Remove notes concerning AF_ALG and AF_XDP

All address families are now documented in address_families.7.

Michael Kerrisk

Remove some more obscure protocols from address family list

The list of address families in this page is still
overwhelmingly long. So let's shorten it.

The removed entries are all in address_families(7).

Michael Kerrisk

Remove a few obsolete protocols

Documentation for these remains in address_families(7)

socketpair.2

Eugene Syromyatnikov

Note that AF_TIPC also supports socketpair(2)

Introduced by Linux commit v4.12-rc1~64^3~304^2~1.

stat.2

Michael Kerrisk [Alessandro Vesely]

ERRORS: ENOENT can occur where a path component is a dangling symlink

See <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=909789>

Benjamin Peterson

SEE ALSO: add statx(2)

statx.2

Tobias Klauser [Michael Kerrisk]

statx() now has a glibc wrapper; remove mention of syscall(2)

syscall.2

Eugene Syromyatnikov [Michael Kerrisk]

Elaborate x32 ABI specifics

snyh

Fix wrong retval register number in alpha architecture

Helge Deller

parisc needs care with syscall parameters

Michael Kerrisk

Rework table to render within 80 columns

syscalls.2

Eugene Syromyatnikov

Change example of a thin syscall wrapper to chdir()

As truncate(3) should dispatch between truncate/truncate64,
as noted later in the page.

Eugene Syromyatnikov [Michael Kerrisk]

Update syscall table

Added: arc_gettls, arc_settls, arc_usr_cmpxchg, arch_prctl,
atomic_barrier, atomic_cmpxchg_32, bfin_spinlock, breakpoint,
clone2, cmpxchg, cmpxchg_badaddr, dma_memcpy, execv, get_tls,
getdomainname, getdtablesize, gethostname, getxgid, getxpid,
getxuid, metag_get_tls, metag_set_fpu_flags, metag_set_tls,
metag_set_global_bit, newfstatat, old_adjtimex, oldumount,
or1k_atomic, pread, pwrite, riscv_flush_icache,
sched_get_affinity, sched_set_affinity, set_tls, setaltroot,
sethae, setpggrp, spill, sram_alloc, sram_free, swapcontext,
switch_endian, sys_debug_setcontext, syscall, sysmips, timerfd,
usr26, usr32, xtensa.

Uncommented: memory_ordering

Renamed: ppc_rtas to rtas (__NR_rtas), ppc_swapcontext to
swapcontext (__NR_swapcontext).

Eugene Syromyatnikov

Note about s390x and old_mmap

Michael Kerrisk

Add s390_guarded_storage(2)

Michael Kerrisk

Update syscall list for Linux 4.18

Eugene Syromyatnikov

Note that not all architectures return errno negated

Helge Deller

parisc Linux does not any longer emulate HP-UX

Michael Kerrisk

Comment out details of a few system calls that only ever briefly existed

unshare.2

Michael Kerrisk [Shawn Landden]

Same EINVAL errors as for clone(2) can also occur with unshare(2)

Tycho Andersen

Note EINVAL when unsharing pid ns twice

The kernel doesn't allow unsharing a pid NS if it has previously been unshared.

ustat.2

Michael Kerrisk

Starting with version 2.28, glibc no longer provides a wrapper function

vmsplice.2

Andrei Vagin

Note that vmsplice can splice pages from pipe to memory

wait.2

Michael Kerrisk

Add some cross references to core(5)

write.2

Michael Kerrisk [Nadav Har'El]

RETURN VALUE: clarify details of partial write and

https://bugzilla.kernel.org/show_bug.cgi?id=197961

Goldwyn Rodrigues

Add details on partial direct I/O writes

alloca.3

Michael Kerrisk [Robin Kuzmin]

Prevent any misunderstanding about when allocated memory is released

bsd_signal.3

Xiao Yang

Fix the wrong version of _POSIX_C_SOURCE

bstring.3

Michael Kerrisk [Emil Fihlman]

Correct argument list for memmem() prototype

msg.3

Michael Kerrisk

Explain zero-initialization requirement for MSG_NXTHDR()

Michael Kerrisk

Remove out of place mention of MSG_CTRUNC

This detail is covered in recvmsg(2), and now also in unix(7).

Michael Kerrisk

Note that MSG_FIRSTHDR can return NULL

Michael Kerrisk

Remove unnecessary 'fdptr' intermediate variable in example code

des_crypt.3

encrypt.3

Michael Kerrisk

The functions described in these pages are removed in glibc 2.28

dlsym.3

Michael Kerrisk

Describe a case where a symbol value may be NULL

errno.3

Michael Kerrisk [Robert P. J. Day]

Mention that errno(1) is part of the 'moreutils' package

exec.3

Michael Kerrisk [Eugene Syromyatnikov]

Note that SPARC provides an execv() system call

exit.3

Mike Frysinger

Note wider sysexits.h availability

ferror.3

Elliot Hughes

Warn about closing the result of fileno()

fnmatch.3

Elliott Hughes

Clarify "shell wildcard pattern"

getaddrinfo.3

Michael Kerrisk [Eric Sanchis]

Fix off-by-one error in example client program

getcwd.3

Michael Kerrisk

Rework text on use of `getcwd()` system call

Make it clear that all of the library functions described on this page will use the `getcwd()` system call if it is present.

Michael Kerrisk

Add details on the `getcwd()` syscall and how it used by libc functions

Michael Kerrisk

Reorder the text describing "(unreachable)" being returned by `getcwd()`

`getmntent.3`

Elliot Hughes

Clarify that `endmntent()` should be used rather than `fclose()`

`isatty.3`

Michael Kerrisk [Jakub Wilk]

Most non-tty files nowadays result in the error `ENOTTY`

Historically, at least FIFOs and pipes yielded the error `EINVAL`.

`lockf.3`

Ian Turner

ERRORS: add `EINTR`

`malloc.3`

Michael Kerrisk

Add reference to glibc MallocInternals wiki

Michael Kerrisk

Note that `calloc()` detects overflow when multiplying its arguments

Michael Kerrisk

Since glibc 2.29, `reallocarray()` is exposed by defining `_DEFAULT_SOURCE`

Info gleaned from glibc NEWS file.

`pthread_attr_init.3`

Michael Kerrisk [Göran Häggsjö, Jakub Wilk]

Use correct `printf()` specifier for "size_t" in example program

`pthread_rwlockattr_setkind_np.3`

Carlos O'Donell

Remove bug notes

`pthread_setname_np.3`

Jakub Wilk

Explain `_np` suffix

Add text to CONFORMING TO explaining that the "`_np`" suffix is because these functions are non-portable.

`putenv.3`

Michael Kerrisk

Note a glibc extension: `putenv("NAME")` removes an environment variable

resolver.3

Michael Becker

Add documentation of res_nclose()

strcmp.3

Heinrich Schuchardt

Clarify that strcmp() is not locale aware

strcpy.3

Matthew Kilgore

Fix example code for strncpy, which could pass an incorrect length

Michael Kerrisk [Frank Theile]

Use "destination" consistently (instead of "target" sometimes)

strfry.3

Keith Thompson

Remove incorrect reference to rand(3)

string.3

strlen.3

strnlen.3

Michael Kerrisk [Jakub Wilk]

Use 'bytes' not 'characters'

This is in line with POSIX terminology.

system.3

Michael Kerrisk [Jonny Grant]

Use '(char *) NULL' rather than '(char *) 0'

Michael Kerrisk

Note that system() can fail for the same reasons as fork(2)

Arkadiusz Drabczyk

Mention that 'errno' is set on error

termios.3

Eugene Syromyatnikov

Note an XTABS alpha issue

trunc.3

Michael Kerrisk [Eric Benton, G. Branden Robinson]

Make the description a little clearer

Michael Kerrisk

Emphasize that the return value is a floating-point number

xcrypt.3

Jason A. Donenfeld

Warn folks not to use these functions

lirc.4

Sean Young

Fix broken link

Sean Young

Document error returns more explicitly

Sean Young

lirc.h include file is in /usr/include/linux/lirc.h

Sean Young [Alec Leamas, Mauro Carvalho Chehab]

Remove ioctls and feature bits which were never implemented

Sean Young

Unsupported ioctl() operations always return ENOTTY

Sean Young

LIRC_MODE_LIRCCODE has been replaced by LIRC_MODE_SCANCODE

Sean Young

Document remaining ioctl (LIRC_GET_REC_TIMEOUT)

Now all ioctls are documented.

Sean Young

Timeout reports are enabled by default

Sean Young

Some devices are send only

Sean Young

Update SEE ALSO

Sean Young

LIRC_CAN_SET_REC_DUTY_CYCLE_RANGE was never supported

No driver ever supported such a thing.

Michael Kerrisk

Clarify the description LIRC_SET_REC_TIMEOUT

tty.4

Michael Witten

Add `vcs(4)' and `pty(7)' to the `SEE ALSO' section

vcs.4

Mattias Engdegård [Michael Witten]

Fix broken example code

core.5

Michael Kerrisk

Add cross reference to vdso(7) where "virtual DSO" is mentioned

filesystems.5

Eugene Syromyatnikov

Mention sysfs(2)

host.conf.5

Nikola Forró

Clarify glibc versions in which spoof options were removed

proc.5

Michael Kerrisk [Philip Dumont]

Document /proc/[tid]

See also https://bugzilla.kernel.org/show_bug.cgi?id=201441

Michael Kerrisk

Add an overview section describing the groups of files under /proc

Keno Fischer [Robert O'Callahan]

Correct description of NSTgid

Lucas Werkmeister

Document fdinfo format for timerfd

Stephan Knauss

Mention /proc/uptime includes time spent in suspend

Michael Kerrisk

Reword /proc/PID/fdinfo timerfd field descriptions as a hanging list

Michael Kerrisk

SEE ALSO: add htop(1) and pstree(1)

fs/proc/uptime.c:uptime_proc_show() fetches time using

ktime_get_boottime which includes the time spent in suspend.

Michael Kerrisk

Document /proc/PID/status CoreDumping field

Michael Kerrisk

Mention choom(1) in discussion of /proc/[pid]/oom_score_adj

Michael Kerrisk

Add a few details on /proc/PID/fdinfo timerfd

Michael Kerrisk

Document /proc/meminfo KReclaimable field

Michael Kerrisk

Explain how to determine top-most mount in /proc/PID/mountinfo

Explain how to determine the top-most mount at a particular

location by inspecting /proc/PID/mountinfo.

Michael Kerrisk [Jakub Wilk]

Remove bogus suggestion to use cat(1) to read files containing '\0'

Michael Kerrisk

Refer to mount(2) for explanation of mount vs superblock options

Michael Kerrisk

Fix description of /proc/PID/* ownership to account for user namespaces

Elvira Khabirova

Describe ambiguities in /proc/<pid>/maps

Michael Kerrisk [Nick Gregory]

Since Linux 4.5, "stack:" is no longer shown in /proc/PID/maps

Nikola Forró

Document /proc/[pid]/status Speculation_Store_Bypass field

Alan Jenkins

Vmalloc information is no longer calculated (Linux 4.4)

Michael Kerrisk [Alexander E. Patrakov, Jakub Wilk, Michael Kerrisk]

Use 'tr '\000' '\n' to display contents of /proc/PID/envron

Michael Kerrisk

Setting dumpable to 1 reverts ownership of /proc/PID/* to effective IDs

Michael Kerrisk

Document /proc/meminfo LazyFree field

Michael Kerrisk

Fix kernel source pathname for soft-dirty documentation

Michael Kerrisk

/proc/[pid]/status VmPMD field was removed in Linux 4.15

resolv.conf.5

Nikola Forró

Document no-reload (RES_NPRELOAD) option

tzfile.5

Paul Eggert

Sync from tzdb upstream

capabilities.7

Michael Kerrisk

Fix some imprecisions in discussion of namespaced file capabilities

The file UID does not come into play when creating a v3 security.capability extended attribute.

Michael Kerrisk

Note that v3 security.attributes are transparently created/retrieved

Michael Kerrisk

Improve the discussion of when file capabilities are ignored

The text stated that the execve() capability transitions are not performed for the same reasons that setuid and setgid mode bits may be ignored (as described in execve(2)). But, that's not quite correct: rather, the file capability sets are treated as empty for the purpose of the capability transition calculations.

Michael Kerrisk

Rework bounding set as per-thread set in transformation rules

Michael Kerrisk

Substantially rework "Capabilities and execution of programs by root"

Rework for improved clarity, and also to include missing details on the case where (1) the binary that is being executed has capabilities attached and (2) the real user ID of the process is not 0 (root) and (3) the effective user ID of the process is 0 (root).

Marcus Gelderie

Add details about SECBIT_KEEP_CAPS

The description of SECBIT_KEEP_CAPS is misleading about the effects on the effective capabilities of a process during a switch to nonzero UIDs. The effective set is cleared based on the effective UID switching to a nonzero value, even if SECBIT_KEEP_CAPS is set. However, with this bit set, the effective and permitted sets are not cleared if the real and saved set-user-ID are set to nonzero values.

Marcus Gelderie

Mention header for SECBIT constants

Mention that the named constants (SECBIT_KEEP_CAPS and others) are available only if the linux/securebits.h user-space header is included.

Michael Kerrisk

Add text introducing bounding set along with other capability sets

Michael Kerrisk [Allison Randal]

Update URL for location of POSIX.1e draft standard

Michael Kerrisk

CAP_SYS_CHROOT allows use of setns() to change the mount namespace

Michael Kerrisk [Pierre Chifflier]

Ambient capabilities do not trigger secure-execution mode

Michael Kerrisk

Add a subsection on per-user-namespace "set-user-ID-root" programs

Michael Kerrisk

Rework discussion of exec and UID 0, correcting a couple of details

Clarify the "Capabilities and execution of programs by root" section, and correct a couple of details:

- * If a process with rUID == 0 && eUID != 0 does an exec, the process will nevertheless gain effective capabilities if the file effective bit is set.

- * Set-UID-root programs only confer a full set of capabilities if the binary does not also have attached capabilities.

Michael Kerrisk

Update URL for libcap tarballs

The previous location does not seem to be getting updated.

(For example, at the time of this commit, libcap-2.26

had been out for two months, but was not present at

<http://www.kernel.org/pub/linux/libs/security/linux-privs>.

Michael Kerrisk

Clarify which capability sets capset(2) and capget(2) apply to
capset(2) and capget(2) apply operate only on the permitted, effective, and inheritable process capability sets.

Michael Kerrisk

Correct the description of SECBIT_KEEP_CAPS

Michael Kerrisk

Add background details on capability transformations during execve(2)

Add background details on ambient and bounding set when discussing capability transformations during execve(2).

Michael Kerrisk

Document the 'no_file_caps' kernel command-line option

cgroup_namespaces.7

Michael Kerrisk [Troy Engel]

Clarify the example by making an implied detail more explicit.

See https://bugzilla.kernel.org/show_bug.cgi?id=201047

cgroups.7

Michael Kerrisk

Add more detail on v2 'cpu' controller and realtime threads
Explicitly note the scheduling policies that are relevant for the
v2 'cpu' controller.

Michael Kerrisk

Document the use of 'cgroup_no_v1=named' to disable v1 named hierarchies
This feature was added in Linux 5.0.

Michael Kerrisk [Mike Weilgart]

Complete partial sentence re kernel boot options and 'nsdelegate'
https://bugzilla.kernel.org/show_bug.cgi?id=201029

Michael Kerrisk

Reframe the text on delegation to include more details about cgroups v1

Michael Kerrisk [Leah Hanson]

Rework discussion of writing to cgroup.type file
In particular, it is possible to write "threaded" to a
cgroup.type file if the current type is "domain threaded".
Previously, the text had implied that this was not possible.

Michael Kerrisk [Balbir Singh, Marcus Gelderie]

Soften the discussion about delegation in cgroups v1
Balbir pointed out that v1 delegation was not an accidental
feature.

epoll.7

Michael Kerrisk

Introduce the terms "interest list" and "ready list"

Michael Kerrisk

Consistently use the term "interest list" rather than "epoll set"

Michael Kerrisk

Reformat Q&A list

Michael Kerrisk

Note that edge-triggered notification wakes up only one waiter
Note a useful performance benefit of EPOLLET: ensuring that
only one of multiple waiters (in `epoll_wait()`) is woken
up when a file descriptor becomes ready.

Michael Kerrisk

Expand the discussion of the implications of file descriptor duplication
In particular, note that it may be difficult for an application
to know about the existence of duplicate file descriptors.

feature_test_macros.7

Michael Kerrisk [Andreas Westfeld]

Add more detail on why FTMs must be defined before including any header

inotify.7

Michael Kerrisk [Paul Millar]

Note ENOTDIR error that can occur for IN_ONLYDIR
Note ENOTDIR error that occurs when requesting a watch on a
nondirectory with IN_ONLYDIR.

ip.7

Bert Hubert

IP_RECVTTL error fixed

I need to get the TTL of UDP datagrams from userspace, so I set the IP_RECVTTL socket option. And as promised by ip.7, I then get IP_TTL messages from recvfrom. However, unlike what the manpage promises, the TTL field gets passed as a 32 bit integer.

man.7

Michael Kerrisk

SEE ALSO: remove mdoc.samples(7)

mount_namespaces.7

Michael Kerrisk

SEE ALSO: add findmnt(8)

namespaces.7

Michael Kerrisk

List factors that may pin a namespace into existence

Various factors may pin a namespace into existence, even when it has no member processes.

Michael Kerrisk [Tycho Kirchner]

Briefly explain why CAP_SYS_ADMIN is needed to create nonuser namespaces

Michael Kerrisk

Mention ioctl(2) in discussion of namespaces APIs

Michael Kerrisk

SEE ALSO: add pam_namespace(8)

pid_namespaces.7

Michael Kerrisk

Clarify the semantics for the adoption of orphaned processes

Because of setns() semantics, the parent of a process may reside in the outer PID namespace. If that parent terminates, then the child is adopted by the "init" in the outer PID namespace (rather than the "init" of the PID namespace of the child).

Michael Kerrisk

Note a detail of /proc/PID/ns/pid_for_children behavior

After clone(CLONE_NEWPID), /proc/PID/ns/pid_for_children is empty until the first child is created. Verified by experiment.

Michael Kerrisk

Note that a process can do unshare(CLONE_NEWPID) only once

sched.7

Michael Kerrisk [Eugene Syromyatnikov]

In the kernel source SCHED_OTHER is actually called SCHED_NORMAL

Michael Kerrisk

SEE ALSO: add ps(1) and top(1)

Michael Kerrisk

SEE ALSO: add chcpu(1), lscpu(1)

signal.7

Michael Kerrisk [Robin Kuzmin]

Clarify that sigsuspend() and pause() suspend the calling *thread*

Helge Deller

Add signal numbers for parisc

Michael Kerrisk

Unify signal lists into a signal table that embeds standards info

Having the signals listed in three different tables reduces readability, and would require more table splits if future standards specify other signals.

Michael Kerrisk

Reorder the architectures in the signal number lists

x86 and ARM are the most common architectures, but currently are in the second subfield in the signal number lists.

Instead, swap that info with subfield 1, so the most common architectures are first in the list.

Michael Kerrisk

Place signal numbers in a separate table

The current tables of signal information are unwieldy, as they try to cram in too much information.

Michael Kerrisk

Insert standards info into tables

Michael Kerrisk

SEE ALSO: add clone(2)

socket.7

Michael Kerrisk

Refer reader to unix(7) for information on SO_PASSSEC

Michael Kerrisk

SEE ALSO: add address_families(7)

socket.7

unix.7

Michael Kerrisk

Move text describing SO_PEERCRECRED from socket(7) to unix(7)

This is, AFAIK, an option specific to UNIX domain sockets, so place it in unix(7).

tcp.7

udp.7

Michael Kerrisk

Add a reference to socket(7) noting existence of further socket options

unix.7

Michael Kerrisk

Enhance the description of SCM_RIGHTS

The existing description is rather thin. More can be said.

Michael Kerrisk

There is a limit on the size of the file descriptor array for SCM_RIGHTS

The limit is defined in the kernel as SCM_MAX_FD (253).

Michael Kerrisk

Rework SO_PEERCRED text for greater clarity

Michael Kerrisk [Felipe Gasper]

Clarify SO_PASSCRED behavior

Michael Kerrisk

Explicitly note that SO_PASSCRED provides SCM_CREDENTIALS messages

Michael Kerrisk

If the buffer to receive SCM_RIGHTS FDs is too small, FDs are closed

Michael Kerrisk

One must send at least one byte of real data with ancillary data

Michael Kerrisk

Ancillary data forms a barrier when receiving on a stream socket

Michael Kerrisk

When sending ancillary data, only one item of each type may be sent

Michael Kerrisk

Improve wording describing socket option argument/return values

Michael Kerrisk

Clarify treatment of incoming ancillary data if 'msg_control' is NULL

Michael Kerrisk

Note behavior if buffer to receive ancillary data is too small

Michael Kerrisk

Fix a minor imprecision in description of SCM_CREDENTIALS

Michael Kerrisk

Refer reader to socket(7) for information about SO_PEEK_OFF

user_namespaces.7

Michael Kerrisk

Rework terminology describing ownership of nonuser namespaces

Prefer the word "owns" rather than "associated with" when describing the relationship between user namespaces and non-user namespaces. The existing text used a mix of the two terms, with "associated with" being predominant, but to my ear, describing the relationship as "ownership" is more comprehensible.

vdso.7

Helge Deller

Fix parisc gateway page description

ld.so.8

Michael Kerrisk [Florian Weimer, David Newall]

Document the --preload command-line option added in glibc 2.30

Michael Kerrisk

Note delimiters for 'list' in --audit and --inhibit-rpath

Michael Kerrisk

Place OPTIONS in alphabetical order

Michael Kerrisk

LD_PRELOAD-ed objects are added to link map in left-to-right order

zdump.8

Paul Eggert

Sync from tzdb upstream

zic.8

Paul Eggert

Sync from tzdb upstream

==== Changes in man-pages-5.01 =====

Released: 2019-05-09, Munich

Contributors

The following people contributed patches/fixes or (noted in brackets in the changelog below) reports, notes, and ideas that have been incorporated in changes in this release:

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Apologies if I missed anyone!

Newly documented interfaces in existing pages

tsearch.3

Florian Weimer [Michael Kerrisk]

Document the `twalk_r()` function added in glibc 2.30

New and changed links

twalk_r.3

Michael Kerrisk

New link to `twalk(3)` page

Changes to individual pages

accept.2

Michael Kerrisk

Note that 'addrlen' is left unchanged in the event of an error

See <http://austingroupbugs.net/view.php?id=836>.

bpf.2

Michael Kerrisk

Update kernel version info for JIT compiler

clone.2

Michael Kerrisk [Jakub Nowak]

`CLONE_CHILD_SETTID` has effect before `clone()` returns *in the child*

`CLONE_CHILD_SETTID` may not have had effect by the time `clone()`

returns in the parent, which could be relevant if the

`CLONE_VM` flag is employed. The relevant kernel code is in

`schedule_tail()`, which is called in `ret_from_fork()`

in the child.

See https://bugzilla.kernel.org/show_bug.cgi?id=203105

execve.2

exec.3

Michael Kerrisk [Dr. Jürgen Sauermann]

Consistently use the term 'pathname' (not 'path')

execve.2

Michael Kerrisk

Note that stack+environ size is also limited to 3/4 of `_STK_LIM`

In `fs/exec.c::prepare_arg_pages()`, we have:

```
limit = _STK_LIM / 4 * 3;
```

```
limit = min(limit, bprm->rlim_stack.rlim_cur / 4);
```

Michael Kerrisk [Dr. Jürgen Sauermann]

SEE ALSO: refer to `exec(3)` (rather than `execl(3)`)

pipe.2

Michael Kerrisk

Note that 'pipefd' is left unchanged in the event of an error

See <http://austingroupbugs.net/view.php?id=467>.

sched_setaffinity.2

Michael Kerrisk [Brice Goglin]

Correct details of return value of `sched_getaffinity()` syscall

setfsuid.2

Michael Kerrisk

Rewrite for improved clarity and defer to `setfsuid()` for details

Rewrite for improved clarity and defer to `setfsuid(2)` for the rationale of the fsGID rather than repeating the same details in this page.

setfsuid.2

Michael Kerrisk

Rewrite for improved clarity and to hint history more explicitly

The current text reads somewhat clumsily. Rewrite it to introduce the eUID and fsUID in parallel, and more clearly hint at the historical rationale for the fsUID, which is detailed lower in the page.

socketpair.2

Michael Kerrisk

Clarify that 'sv' is left unchanged in the event of an error

See also <http://austingroupbugs.net/view.php?id=483>.

splice.2

Slavomir Kaslev

EAGAIN can occur when called on nonblocking file descriptors

syscalls.2

Michael Kerrisk [Andreas Korb]

Remove crufty text about i386 syscall dispatch table

The removed text long ago ceased to be accurate. Nowadays, the dispatch table is autogenerated when building the kernel (via the kernel makefile, `arch/x86/entry/syscalls/Makefile`).

tee.2

Slavomir Kaslev

EAGAIN can occur when called on nonblocking file descriptors

fopen.3

Elliot Hughes

Explain BSD vs glibc "a+" difference

Where is the initial read position for an "a+" stream?

POSIX leaves this unspecified. Most BSD man pages are silent, and MacOS has the ambiguous "The stream is positioned at the end of the file", not differentiating between reads and writes other than to say that fseek(3) does not affect writes. glibc's documentation explicitly specifies that the initial read position is the beginning of the file.

mallinfo.3

Elliott Hughes

Further discourage use of mallinfo()

The BUGS section already explains why you need to be cautious about using mallinfo, but given the number of bug reports we see on Android, it seems not many people are reading that far. Call it out up front.

malloc_trim.3

Carlos O'Donell

Update trimming information

Since glibc 2.8, commit 68631c8eb92, the malloc_trim function has iterated over all arenas and free'd back to the OS all page runs that were free. This allows an application to call malloc_trim to consolidate fragmented chunks and free back any pages it can to potentially reduce RSS usage.

posix_memalign.3

Elliot Hughes

Some functions set errno

True of bionic, glibc, and musl. (I didn't check elsewhere.)

resolver.3

Michael Kerrisk [Wladimir Mutel]

Mention that some functions set 'h_errno'

stdarg.3

Michael Kerrisk [Vincent Lefevre]

Remove the NOTES section describing the ancient varargs macros stdarg.h is now 30 years old, and gcc long ago (2004) ceased to implement <varargs.h>. There seems little value in keeping this

text.

See https://bugzilla.kernel.org/show_bug.cgi?id=202907

Michael Kerrisk [Egmont Koblinger]

Add a note that "..." in function signature means a variadic function

Egmont suggested adding this, because the string "..." appears at several other points in the page, but just to indicate that some text is omitted from example code.

strerror.3

Jakub Wilk

Don't discuss buffer size for strerror_l()

Unlike strerror_r(), strerror_l() doesn't take buffer length as an argument.

strtol.3

strtoul.3

Jakub Wilk

SEE ALSO: add strtoumax(3), strtoumax(3)

sysconf.3

Michael Kerrisk [Hugues Evrard]

Clearly note that _SC_PAGESIZE and _SC_PAGE_SIZE are synonyms

tsearch.3

Florian Weimer

Do not use const arguments in twalk() callback

The const specifier is not part of the prototype (it only applies to the implementation), so showing it here confuses the reader.

Michael Kerrisk

SYNOPSIS: add missing definition of 'VISIT' type

Michael Kerrisk

Reformat twalk() and twalk_r() prototypes for easier readability

console_codes.4

Jakub Wilk

Document that \e[1;n] and \e[2;n] support 16 colors

Source: setterm_command() in drivers/tty/vt/vt.c

elf.5

Michael Kerrisk [Keegan Saunders]

A data segment does not have PF_X

proc.5

Michael Witten [Anisse Astier]

Add missing Inode field to /proc/net/unix

hostname.7

Florian Weimer

HOSTALIASES/search path processing is DNS-specific

Other NSS modules do not necessarily honor these settings.

inode.7

Michael Kerrisk

Note that timestamp fields measure time starting at the Epoch

Michael Kerrisk

Timestamp fields are structures that include a nanosecond component

Michael Kerrisk

Add references to `execve(2)` to describe set-UID/set-GID behaviors

Found in path(s):

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/Changes.old

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Found in path(s):

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/__ppc_yield.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getrandom.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/quotactl.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/__ppc_set_ppr_med.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/__ppc_get_timebase.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/get_nprocs_conf.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/copy_file_range.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/fanotify_mark.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/fanotify_init.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/subpage_prot.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/if_nametoidex.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/fanotify.7

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ioctl_fat.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/random.7

```
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/strfromd.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/kcmp.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/if_nameindex.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getentropy.3
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```

Found in path(s):

```
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/xattr.7
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.b\" 2007-12-14 mtk Added Reiserfs, XFS, JFS.'
.b\"'
.b\" commit: 6af9f7bf3c399e0ab1eee048e13572c6d4e15fe9'

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mbsrtowcs.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wmemset.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcschr.3

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iswcntrl.3

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wmemcmp.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wscmp.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcsncat.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iswblank.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wctrans.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/mbstowcs.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/nl_langinfo.3

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iconv.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iswalph.3

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iswlower.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcspbrk.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/fputwc.3

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man4/random.4
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wmemchr.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iconv_close.3
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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/iswpunct.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/MB_LEN_MAX.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/stpncpy.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcscasecmp.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcsspn.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/charsets.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/wcsrchr.3
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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/getrpcnt.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/rpc.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/xdr.3
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.b\" \" %%%LICENSE_END'

.b\" \"

.b\" \" This document is based on the perf_event.h header file, the'

.b\" \" tools/perf/design.txt file, and a lot of bitter experience.'

.b\" \"

.b\" \" commit a21b0b354d4ac39be691f51c53562e2c24443d9e'

.b\" \" commit ac9721f3f54b27a16c7e1afb2481e7ee95a70318'

.b" commit e5d1367f17ba6afed5fd8b74e4d5720923e0c25'
.b" commit 24f1e32c60c45c89a997c73395b69c8af6f0a84e'
.b" commit 2e80a82a49c4c7eca4e35734380f28298ba5db19'
.b" commit 65074d43fc77bcae32776724b7fa2696923c78e4'
.b" commit e12f03d7031a977356e3d7b75a68c2185ff8d155'
.b" commit 33ea4b24277b06dbc55d7f5772a46f029600255e'
.b" commit cb5d76999029ae7a517cb07dfa732c1b5a934fc2'
.b" this was added much later when PERF_ATTR_SIZE_VER2 happened'
.b" but the actual attr_size had increased in 2.6.33'
.b" commit cb5d76999029ae7a517cb07dfa732c1b5a934fc2'
.b" commit 1659d129ed014b715b0b2120e6fd929bdd33ed03'
.b" commit 60e2364e60e86e81bc6377f49779779e6120977f'
.b" commit 1a5941312414c71dece6717da9a0fa1303127afa'
.b" commit f287d332ce835f77a4f5077d2c0ef1e3f9ea42d2'
.b" commit 8f62242246351b5a4bc0c1f00c0c7003edea128a'
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.b" commit e49a5bd38159dfb1928fd25b173bc9de4bbadb21'
.b" commit f7d7986060b2890fc26db6ab5203efbd33aa2497'
.b" commit f7d7986060b2890fc26db6ab5203efbd33aa2497'
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.b" commit 89d6c0b5bdbb1927775584dcf532d98b3efe1477'
.b" commit bce38cd53e5ddba9cb6d708c4ef3d04a4016ec7e'
.b" commit 4018994f3d8785275ef0e7391b75c3462c029e56'
.b" commit c5ebcedb566ef17bda7b02686e0d658a7bb42ee7'
.b" commit c3feedf2aaf9ac8bad6f19f5d21e4ee0b4b87e9c'
.b" commit d6be9ad6c960f43800a6f118932bc8a5a4eadcd1'
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.b" commit 60e2364e60e86e81bc6377f49779779e6120977f'
.b" commit 82b897782d10fcc4930c9d4a15b175348fdd2871'
.b" commit ab608344bcbde4f55ec4cd911b686b0ce3eae076'
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.b" commit c980d1091810df13f21aabbce545fd98f545bbf7'
.b" commit a240f76165e6255384d4bdb8139895fac7988799'
.b" commit a240f76165e6255384d4bdb8139895fac7988799'
.b" commit d077526485d5c9b12fe85d0b2b3b7041e6bc5f91'
.b" commit d077526485d5c9b12fe85d0b2b3b7041e6bc5f91'
.b" commit 13d7a2410fa637f450a29ecb515ac318ee40c741'
.b" This is tricky; was committed during 3.12 development'
.b" but right before release was disabled.'
.b" So while you could select mmap2 starting with 3.12'
.b" it did not work until 3.16'
.b" commit a5a5ba72843dd05f991184d6cb9a4471acce1005'
.b" commit 82b897782d10fcc4930c9d4a15b175348fdd2871'
.b" commit 34f439278cef7b1177f8ce24f9fc81dfc6221d3b'
.b" commit 45ac1403f564f411c6a383a2448688ba8dd705a4'
.b" commit f506b3dc0ec454a16d40cab9ee5d75435b39dc50'

.b" commit 24f1e32c60c45c89a997c73395b69c8af6f0a84e'
.b" commit 24f1e32c60c45c89a997c73395b69c8af6f0a84e'
.b" commit a7e3ed1e470116c9d12c2f778431a481a6be8ab6'
.b" commit 24f1e32c60c45c89a997c73395b69c8af6f0a84e'
.b" commit a7e3ed1e470116c9d12c2f778431a481a6be8ab6'
.b" commit bce38cd53e5ddba9cb6d708c4ef3d04a4016ec7e'
.b" commit c229bf9dc179d2023e185c0f705bdf68484c1e73'
.b" commit c9fdfa14c3792c0160849c484e83aa57afd80ccc'
.b" commit bac52139f0b7ab31330e98fd87fc5a2664951050'
.b" commit 135c5612c460f89657c4698fe2ea753f6f667963'
.b" commit 135c5612c460f89657c4698fe2ea753f6f667963'
.b" commit 135c5612c460f89657c4698fe2ea753f6f667963'
.b" commit 2c44b1936bb3b135a3fac8b3493394d42e51cf70'
.b" commit 4018994f3d8785275ef0e7391b75c3462c029e56'
.b" commit c5ebcedb566ef17bda7b02686e0d658a7bb42ee7'
.b" commit 34f439278cef7b1177f8ce24f9fc81dfc6221d3b'
.b" commit 1a5941312414c71dece6717da9a0fa1303127afa'
.b" commit 97c79a38cd454602645f0470ffb444b3b75ce574'
.b" commit c7206205d00ab375839bd6c7ddb247d600693c09'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit e8c6deac69629c0cb97c3d3272f8631ef17f8f0f'
.b" commit e8c6deac69629c0cb97c3d3272f8631ef17f8f0f'
.b" commit 45bfb2e50471abbbfd83d40d28c986078b0d24ff'
.b" commit 39447b386c846bbf1c56f6403c5282837486200f'
.b" commit 39447b386c846bbf1c56f6403c5282837486200f'
.b" commit 2fe85427e3bf65d791700d065132772fc26e4d75'
.b" commit 82b897782d10fcc4930c9d4a15b175348fdd2871'
.b" commit 45ac1403f564f411c6a383a2448688ba8dd705a4'
.b" commit 1676b8a077c352085d52578fb4f29350b58b6e74'
.b" commit 930e6fcd2bcce9bcd9d4aa7e755678d33f3fe6f4'
.b" commit 135c5612c460f89657c4698fe2ea753f6f667963'
.b" commit 135c5612c460f89657c4698fe2ea753f6f667963'
.b" commit 71ef3c6b9d4665ee7afbbe4c208a98917dcfc32f'
.b" commit 68db7e98c3a6ebe7284b6cf14906ed7c55f3f7f0'
.b" commit 2023a0d2829e521fe6ad6b9907f3f90bfbf57142'
.b" ec0d7729bbaed4b9d2d3fada693278e13a3d1368'
.b" f38b0dbb491a6987e198aa6b428db8692a6480f8'
.b" commit 45ac1403f564f411c6a383a2448688ba8dd705a4'
.b" commit 45ac1403f564f411c6a383a2448688ba8dd705a4'
.b" See <https://lkml.org/lkml/2011/5/24/337>
.b" commit 179033b3e064d2cd3f5f9945e76b0a0f0fbf4883'
.b" commit c7206205d00ab375839bd6c7ddb247d600693c09'
.b" 7911d3f7af14a614617e38245fedf98a724e46a9'

.b" commit 3581fe0ef37ce12ac7a4f74831168352ae848edc'
.b" commit bad7192b842c83e580747ca57104dd51fe08c223'
.b" commit ad0cf3478de8677f720ee06393b3147819568d6a'
.b" commit 6fb2915df7f0747d9044da9dbff5b46dc2e20830'
.b" commit cf4957f17f2a89984915ea808876d9c82225b862'
.b" commit 2541517c32be2531e0da59dfd7efc1ce844644f5'
.b" commit 86e7972f690c1017fd086cdf53d8524e68c661c'
.b" commit 32ff77e8cc9e66cc4fb38098f64fd54cc8f54573'
.b" commit f371b304f12e31fe30207c41ca7754564e0ea4dc'
.b"
.b" default changed in commit 0161028b7c8aebef64194d3d73e43bc3b53b5c66'
.b" Introduced in c5dfd78eb79851e278b7973031b9ca363da87a7e'
.b" commit abe43400579d5de0078c2d3a760e6598e183f871'
.b" commit 0c9d42ed4cee2aa1dfc3a260b741baae8615744f'
.b" a66734297f78707ce39d756b656bfae861d53f62'
.b" 7911d3f7af14a614617e38245fedf98a724e46a9'
.b" commit 641cc938815dfd09f8fa1ec72deb814f0938ac33'
.b" commit 641cc938815dfd09f8fa1ec72deb814f0938ac33'
.b" commit 314d9f63f385096580e9e2a06eaa0745d92fe4ac'
.b" bed5b25ad9c8a2f5d735ef0bc746ec870c01c1b0'
.b" commit aa2bc1ade59003a379ffc485d6da2d92ea3370a6'
.b" 97c79a38cd454602645f0470ffb444b3b75ce574'
.b" commit a4e95fc2cbb31d70a65beffef8773f881328c34'
.b" commit 0793a61d4df8daeac6492dbf8d2f3e5713caae5e'
.b" commit cdd6c482c9ff9c55475ee7392ec8f672eddb7be6'
.b" commit ba0a6c9f6fceed11c6a99e8326f0477fe383e6b5'
.b" commit b690081d4d3f6a23541493f1682835c3cd5c54a1'
.b" FIXME . cannot find a kernel commit for this one'
.b" commit 45e16a6834b6af098702e5ea6c9a40de42ff77d8'
.b" commit 38b435b16c36b0d863efcf3f07b34a6fac9873fd'
.b" commit 050735b08ca8a016bbace4445fa025b88fee770b'
.b" commit 4ec8363dfc1451f8c8f86825731fe712798ada02'
.b" commit 724b6daa13e100067c30cfc4d1ad06629609dc4e'
.b" commit fa7315871046b9a4c48627905691dbde57e51033'
.b" commit f287d332ce835f77a4f5077d2c0ef1e3f9ea42d2'

Found in path(s):

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/perf_event_open.2

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RELEASE

The Linux man page maintainer proudly announces. . .

man-pages-5.02.tar.gz - man pages for Linux

Differences from the previous manual pages release are listed in the file "Changes".

For further information, visit <http://www.kernel.org/doc/man-pages/>

POSIX PAGES

This package used to contains a copy of the POSIX 1003.1-2003 man pages. The POSIX pages are now distributed in the separate man-pages-posix package.

THE PAGES

These pages are most of the section 2, 3, 4, 5, 7 man pages for Linux. A few pages are provided in sections 1 and 8 for commands that are not documented in other packages, and there are a few pages in sections 5 and 8 for the timezone utilities.

[The timezone pages were taken from
<ftp://elsie.nci.nih.gov/pub/tzcode2001a.tar.gz>.]

[The section 3 man pages for the db routines have been taken from
<ftp://ftp.terra.net/pub/sleepycat/db.1.86.tar.gz>.]

[The rpc man pages were taken from the 4.4BSD-Lite CDROM.]

Here is a breakdown of what this distribution contains:

- Section 1 = user commands (intro, plus a few other pages)
- Section 2 = system calls
- Section 3 = libc calls
- Section 4 = devices (e.g., hd, sd)
- Section 5 = file formats and configuration files (e.g., wtmp, /etc/passwd)
- Section 6 = games (intro only)
- Section 7 = overviews, conventions, macro packages, etc.
- Section 8 = system administration (intro, plus a few other pages)

This package contains no, or very few, section 1, 6, and 8 man pages because these should be distributed with the binaries they are written for. Sometimes Section 9 is used for man pages describing parts of the kernel.

Note that only Section 2 is rather complete, but Section 3 contains several hundred man pages. If you want to write some man pages, or suggest improvements to existing pages, please visit <http://www.kernel.org/doc/man-pages/> .

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/udp.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/fifo.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/tcp.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/x25.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/icmp.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/ddp.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/ipv6.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/raw.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/packet.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/rtnetlink.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/ip.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/unix.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sendfile.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/arp.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/netdevice.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/rtnetlink.7
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man3/cmsg.3
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/socket.7

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/madvise.2

* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/sigaction.2

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/fallocate.2

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man1/ldd.1

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Found in path(s):

```
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/resolv.conf.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man7/mailaddr.7
```

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```
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.b\" and Copyright (C) 2002-2008,2017 Michael Kerrisk <mtk.manpages@gmail.com>'
.b\" with networking additions from Alan Cox (A.Cox@swansea.ac.uk)'
.b\" and scsi additions from Michael Neuffer (neuffer@mail.uni-mainz.de)'
.b\" and sysctl additions from Andries Brouwer (aeb@cwi.nl)'
.b\" and System V IPC (as well as various other) additions from'
.b\" Michael Kerrisk <mtk.manpages@gmail.com>'
.b\"
.b\" %%LICENSE_START(GPLv2+_DOC_FULL)'
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.b\" modify it under the terms of the GNU General Public License as'
.b\" published by the Free Software Foundation; either version 2 of'
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.b\" <http://www.gnu.org/licenses/>.'
.b\" %%LICENSE_END'
.b\"
.b\" Modified 1995-05-17 by faith@cs.unc.edu'
.b\" Minor changes by aeb and Marty Leisner (leisner@sdsp.mc.xerox.com).'  
.b\" Modified 1996-04-13, 1996-07-22 by aeb@cwi.nl'  
.b\" Modified 2001-12-16 by rwhron@earthlink.net'
```

.b\" Modified 2002-07-13 by jbelton@shaw.ca'
.b\" Modified 2002-07-22, 2003-05-27, 2004-04-06, 2004-05-25'
.b\" by Michael Kerrisk <mtk.manpages@gmail.com>
.b\" 2004-11-17, mtk -- updated notes on /proc/loadavg'
.b\" 2004-12-01, mtk, rtsig-max and rtsig-nr went away in 2.6.8'
.b\" 2004-12-14, mtk, updated '\statm', and fixed error in order of list'
.b\" 2005-05-12, mtk, updated '\stat'
.b\" 2005-07-13, mtk, added /proc/sys/fs/mqueue/*'
.b\" 2005-09-16, mtk, Added /proc/sys/fs/suid_dumpable'
.b\" 2005-09-19, mtk, added /proc/zoneinfo'
.b\" 2005-03-01, mtk, moved /proc/sys/fs/mqueue/* material to mq_overview.7.'
.b\" 2008-06-05, mtk, Added /proc/[pid]/oom_score, /proc/[pid]/oom_adj,'
.b\" /proc/[pid]/limits, /proc/[pid]/mountinfo, /proc/[pid]/mountstats,'
.b\" and /proc/[pid]/fdinfo/*.'
.b\" 2008-06-19, mtk, Documented /proc/[pid]/status.'
.b\" 2008-07-15, mtk, added /proc/config.gz'
.b\"'
.b\" FIXME cross check against Documentation/filesystems/proc.txt'
.b\" to see what information could be imported from that file'
.b\" into this file.'
.b\"'
.b\"'
.b\" commit 0499680a42141d86417a8fb8c8db806bea1201'
.b\" As an additional bonus, since'
.b\" .IR /proc/[pid]/cmdline'
.b\" is inaccessible for other users,'
.b\" poorly written programs passing sensitive information via'
.b\" program arguments are now protected against local eavesdroppers.'
.b\" commit 0499680a42141d86417a8fb8c8db806bea1201'
.b\"'
.b\"'
.b\" commit 68eb94f16227336a5773b83ecfa8290f1d6b78ce'
.b\" https://lwn.net/Articles/28222/'
.b\" From: Stephen Smalley <sds@epoch.ncsc.mil>
.b\" To:\t LKML and others'
.b\" Subject: [RFC][PATCH] Process Attribute API for Security Modules'
.b\" Date: 08 Apr 2003 16:17:52 -0400'
.b\"'
.b\" \thttp://www.nsa.gov/research/_files/selinux/papers/module/x362.shtml'
.b\"'
.b\" commit 4eb582cf1fbd7b9e5f466e3718a59c957e75254e'
.b\" commit b68101a1e8f0263dbc7b8375d2a7c57c6216fb76'
.b\" commit d410fa4ef99112386de5f218dd7df7b4fca910b4'
.b\" commit 42c3e03ef6b298813557cdb997bd6db619cd65a2'
.b\" commit 5091faa449ee0b7d73bc296a93bca9540fc51d0a'
.b\" Precisely: Linux 2.6.0-test7'
.b\" commit b813e931b4c8235bb42e301096ea97dbdee3e8fe (2.6.22)'
.b\" commit 398499d5f3613c47f2143b8c54a04efb5d7a6da9 (2.6.32)'

.b" commit 040fa02077de01c7e08fa75be6125e4ca5636011 (3.11)
.b"
.b" "Clears page referenced bits shown in smaps output"
.b" write-only, writable only by the owner of the process'
.b" Internally: CLEAR_REFS_ALL'
.b" Internally: CLEAR_REFS_ANON'
.b" Internally: CLEAR_REFS_MAPPED'
.b" Internally: CLEAR_REFS_SOFT_DIRTY'
.b" Internally: CLEAR_REFS_MM_HIWATER_RSS'
.b" In 2.3.26, this also used to be true if the process was swapped out.'
.b" commit 4614a696bd1c3a9af3a08f0e5874830a85b889d4'
.b" and/proc/[pid]/task/[tid]/cpuset'
.b" The following was still true as at kernel 2.6.13'
.b" The following was still true as at kernel 2.6.13'
.b" The following was still true as at kernel 2.6.13'
.b" The following is not true in my tests (MTK):'
.b" Note that this will not work for'
.b" programs that seek on their files, as the files in the fd directory'
.b" are not seekable.'
.b" commit 1117f72ea0217ba0cc19f05adbdbd8b9a397f5ab7'
.b" commit 49d063cb353265c3af701bab215ac438ca7df36d'
.b" commit cbac5542d48127b546a23d816380a7926eee1c25'
.b" commit 138d22b58696c506799f8de759804083ff9effae'
.b" commit 138d22b58696c506799f8de759804083ff9effae'
.b" commit af9c4957cf212ad9cf0bee34c95cb11de5426e85'
.b" commit 7c3ab7381e79dfc7db14a67c6f4f3285664e1ec2'
.b" commit 3036e7b490bf7878c6dae952eec5fb87b1106589'
.b" FIXME Describe /proc/[pid]/loginuid'
.b" Added in 2.6.11; updating requires CAP_AUDIT_CONTROL'
.b" CONFIG_AUDITSYSCALL'
.b" commit 640708a2cff7f81e246243b0073c66e6ece7e53e'
.b" FIXME'
.b" This may change. See the mail thread'
.b" "[RFC][PATCH v2] procfs: Always expose /proc/<pid>/map_files/ and make it readable"
.b" from Jan 2015'
.b" commit b76437579d1344b612cf1851ae610c636cec7db0 (added)
.b" commit 65376df582174ffcec9e6471bf5b0dd79ba05e4a (removed)
.b" This info adapted from Documentation/filesystems/proc.txt'
.b" commit 2d4d4864ac08caff5c204a752bd004eed4f08760'
.b" Miklos Szeredi, Nov 2017: The hidden one is the initramfs, I believe'
.b" mtk: In the initial mount namespace, this hidden ID has the value 0'
.b" See commit 6b4e306aa3dc94a0545eb9279475b1ab6209a31f'
.b" See mm/oom_kill.c::badness() in pre 2.6.36 sources'
.b" See mm/oom_kill.c::oom_badness() after 2.6.36'
.b" commit a63d83f427fbce97a6cea0db2e64b0eb8435cd10'
.b" See mm/oom_kill.c::badness() in pre 2.6.36 sources'
.b" See mm/oom_kill.c::oom_badness() after 2.6.36'
.b" commit a63d83f427fbce97a6cea0db2e64b0eb8435cd10'

.b\" More precisely, if it has CAP_SYS_ADMIN or (pre 2.6.36) CAP_SYS_RESOURCE'

.b\" More precisely, if it has CAP_SYS_RAWIO'

.b\" Text taken from 3.7 Documentation/filesystems/proc.txt'

.b\" Not quite true; see commit 541c237c0923f567c9c4cabb8a81635baadc713f'

.b\" commit 77bb499bb60f4b79cca7d139c8041662860fcf87'

.b\" commit 83b4b0bb635eee2b8e075062e4e008d1bc110ed7'

.b\" commit 478307230810d7e2a753ed220db9066dfdf88718'

.b\" The following was still true as at kernel 2.6.13'

.b\" FIXME Describe /proc/[pid]/projid_map'

.b\" Added in 3.7'

.b\" commit f76d207a66c3a53defea67e7d36c3eb1b7d6d61d'

.b\" FIXME Describe /proc/[pid]/sessionid'

.b\" commit 1e0bd7550ea9cf474b1ad4c6ff5729a507f75fdc'

.b\" CONFIG_AUDITSYSCALL'

.b\" Added in 2.6.25; read-only; only readable by real UID'

.b\"'

.b\" FIXME Describe /proc/[pid]/sched'

.b\" Added in 2.6.23'

.b\" CONFIG_SCHED_DEBUG, and additional fields if CONFIG_SCHEDSTATS'

.b\" Displays various scheduling parameters'

.b\" This file can be written, to reset stats'

.b\" The set of fields exposed by this file have changed'

.b\" significantly over time.'

.b\" commit 43ae34cb4cd650d1eb4460a8253a8e747ba052ac'

.b\"'

.b\" FIXME Describe /proc/[pid]/schedstats and'

.b\" /proc/[pid]/task/[tid]/schedstats'

.b\" Added in 2.6.9'

.b\" CONFIG_SCHEDSTATS'

.b\" 2ec220e27f5040aec1e88901c1b6ea3d135787ad'

.b\" commit 44d90df6b757c59651ddd55f1a84f28132b50d29'

.b\" commit 44d90df6b757c59651ddd55f1a84f28132b50d29'

.b\" commit 74e37200de8e9c4e09b70c21c3f13c2071e77457'

.b\" commit 44d90df6b757c59651ddd55f1a84f28132b50d29'

.b\" commit 74e37200de8e9c4e09b70c21c3f13c2071e77457'

.b\" commit 44d90df6b757c59651ddd55f1a84f28132b50d29'

.b\" commit 74e37200de8e9c4e09b70c21c3f13c2071e77457'

.b\" commit f2530dc71cf0822f90bb63ea4600caaef33a66bb'

.b\" commit 74e37200de8e9c4e09b70c21c3f13c2071e77457'

.b\" This field and following, up to and including wchan added 0.99.1'

.b\" And back in kernel 1.2 days things were different again.'

.b\" Back in kernel 1.2 days things were different.'

.b\" .TP'

.b\" \\fIcounter\\fP %ld'

.b\" The current maximum size in jiffies of the process's next timeslice,'

.b\" or what is currently left of its current timeslice, if it is the'

.b\" currently running process.'

.b\" .TP'

.b"\" \\fftimeout\\fP %u'
.b"\" The time in jiffies of the process's next timeout.'
.b"\" timeout was removed sometime around 2.1/2.2'
.b"\" nswap was added in 2.0'
.b"\" cnsnap was added in 2.0'
.b"\" commit b3f7f573a20081910e34e99cbc91831f4f02f1ff'
.b"\" commit b3f7f573a20081910e34e99cbc91831f4f02f1ff'
.b"\" commit b3f7f573a20081910e34e99cbc91831f4f02f1ff'
.b"\" commit 5b172087f99189416d5f47fd7ab5e6fb762a9ba3'
.b"\" commit 5b172087f99189416d5f47fd7ab5e6fb762a9ba3'
.b"\" commit 5b172087f99189416d5f47fd7ab5e6fb762a9ba3'
.b"\" commit 5b172087f99189416d5f47fd7ab5e6fb762a9ba3'
.b"\" commit 5b172087f99189416d5f47fd7ab5e6fb762a9ba3'
.b"\" (not including libs; broken, includes data segment)'
.b"\" (including libs; broken, includes library text)'
.b"\" commit e4bc33245124db69b74a6d853ac76c2976f472d5'
.b"\" commit bc3e53f682d93df677dbd5006a404722b3adfe18'
.b"\" commit bf9683d6990589390b5178dafa8fd06808869293'
.b"\" commit bf9683d6990589390b5178dafa8fd06808869293'
.b"\" commit bf9683d6990589390b5178dafa8fd06808869293'
.b"\" commit dc6c9a35b66b520cf67e05d8ca60ebecad3b0479'
.b"\" commit b084d4353ff99d824d3bc5a5c2c22c70b1fba722'
.b"\" commit 5d317b2b6536592a9b51fe65faed43d65ca9158e'
.b"\" commit c643401218be0f4ab3522e0c0a63016596d6e9ca'
.b"\" commit af884cd4a5ae62fcf5e321fecf0ec1014730353d'
.b"\" commit 2f4b3bf6b2318cfaa177ec5a802f4d8d6afbd816'
.b"\" commit fae1fa0fc6cca8beee3ab8ed71d54f9a78fa3f64'
.b"\" commit ebc67341fee34061430f3367f2e507e52ee051b'
.b"\" Precisely: Linux 2.6.0-test6'
.b"\" in particular: "children" :/'
.b"\" The following was still true as at kernel 2.6.13'
.b"\" commit 818411616baf46ceba0cff6f05af3a9b294734f7'
.b"\" see comments in get_children_pid() in fs/proc/array.c'
.b"\" commit 2e13ba54a2682eea24918b87ad3edf70c2cf085b'
.b"\" commit 5ed67f05f66c41e39880a6d61358438a25f9fee5'
.b"\" commit 48f6a7a511ef8823dff39afee0320092d43a8a0'
.b"\" commit da8b44d5a9f8bf26da637b7336508ca534d6b319'
.b"\" commit 5de23d435e88996b1efe0e2cebe242074ce67c9e'
.b"\" commit 7abbaf94049914f074306d960b0f968ffe52e59f'
.b"\" commit 3b72c814a8e8cd638e1ba0da4dfce501e9dff5af'
.b"\" FIXME Much more needs to be said about /proc/fs'
.b"\"'
.b"\" commit 80ae2fdceba8313b0433f899bdd9c6c463291a17'
.b"\" KPF_BALLOON: commit 09316c09dde33aae14f34489d9e3d243ec0d5938'
.b"\" KPF_ZERO_PAGE: commit 56873f43abdcd574b25105867a990f067747b2f4'
.b"\" KPF_IDLE: commit f074a8f49eb87cde95ac9d040ad5e7ea4f029738'
.b"\" commit ad3bdefe877afb47480418fdb05ecd42842de65e'
.b"\" commit e07a4b9217d1e97d2f3a62b6b070efdc61212110'

.b"\" commit 9d5b86ac13c573795525ecac6ed2db39ab23e2a8'
.b"\" commit d67fd44f697dff293d7cdc29af929241b669affe'
.b"\" It looks like this only ever did something back in 1.0 days'
.b"\" commit a5ad88ce8c7fae7ddc72ee49a11a75aa837788e0'
.b"\" commit a5ad88ce8c7fae7ddc72ee49a11a75aa837788e0'
.b"\" commit 7225e75144b9718cbbe1820d9c011c809d5773fd'
.b"\" commit e9720acd728a46cb40daa52c99a979f7c4ff195c'
.b"\" .TP'
.b"\" .I /proc/net/ipx'
.b"\" No information.'
.b"\" .TP'
.b"\" .I /proc/net/ipx_route'
.b"\" No information.'
.b"\" .TP'
.b"\" .I /proc/net/route'
.b"\" No information, but looks similar to'
.b"\" .BR route (8).'

.b"\" FIXME Document /proc/sched_debug (since Linux 2.6.23)'
.b"\" See also /proc/[pid]/sched'
.b"\" 1024 on Alpha and ia64'
.b"\" FIXME . Actually, the following info about the /proc/stat 'cpu' field'
.b"\" does not seem to be quite right (at least in 2.6.12 or 3.6):'
.b"\" the idle time in /proc/uptime does not quite match this value'
.b"\" See kernel commit 9c240d757658a3ae9968dd309e674c61f07c7f48'
.b"\" Precisely: Linux 2.6.0-test4'
.b"\" Precisely: Linux 2.6.0-test4'
.b"\" See Changelog entry for 5e84cfde51cf303d368fcb48f22059f37b3872de'
.b"\" commit ce0e7b28fb75cb003cfc8d0238613aaf1c55e797'
.b"\" FIXME . The following is not the full picture for the 'intr' of'
.b"\" /proc/stat on 2.6:'
.b"\" commit d3d64df21d3d0de675a0d3ffa7c10514f3644b30'
.b"\" On some systems, it is not present.'
.b"\" looks like this is unused in kernels 2.2 to 2.6'
.b"\" looks like this is unused in kernels 2.2 to 2.6'
.b"\" This can be slightly more than'
.b"\" .I inode-max'
.b"\" because Linux allocates them one page full at a time.'

.b"\" commit d29216842a85c7970c536108e093963f02714498'
.b"\" commit 9cfe015aa424b3c003baba3841a60dd9b5ad319b'
.b"\" commit 800179c9b8a1e796e441674776d11cd4c05d61d7'
.b"\" commit 800179c9b8a1e796e441674776d11cd4c05d61d7'
.b"\" The following is based on text from Documentation/sysctl/kernel.txt'
.b"\" In kernel source: SUID_DUMP_DISABLE'
.b"\" In kernel source: SUID_DUMP_USER'
.b"\" In kernel source: SUID_DUMP_ROOT'
.b"\" 9520628e8ceb69fa9a4aee6b57f22675d9e1b709'
.b"\" 54b501992dd2a839e94e76aa392c392b55080ce8'
.b"\" commit 9eefe520c814f6f62c5d36a2ddcd3fb99dfdb30e (introduces feature)'

.b" commit 0050ee059f7fc86b1df2527aaa14ed5dc72f9973 (rendered redundant)'
.b" FIXME Must document the 3.19 '\msgmni\ changes.'
.b" commit 620f6e8e855d6d447688a5f67a4e176944a084e8'
.b" Removed in commit 87f504e5c78b910b0c1d6ffb89bc95e492322c84 (tglx/history.git)'
.b" removed in commit 1b483a6a7b2998e9c98ad985d7494b9b725bd228, before 2.6.28'
.b" 455cd5ab305c90ffc422dd2e0fb634730942b257'
.b" commit 411f05f123cbd7f8aa1edcae86970755a6e2a9d9'
.b" commit 620f6e8e855d6d447688a5f67a4e176944a084e8'
.b" 3d43321b7015387cfebbe26436d0e9d299162ea1'
.b" From Documentation/sysctl/kernel.txt'
.b" Prior to 2.6.10, pid_max could also be raised above 32768 on 32-bit
.b" platforms, but this broke /proc/[pid]'
.b" See <http://marc.theaimsgroup.com/?l=linux-kernel&m=109513010926152&w=2>'
.b" FIXME Document /proc/sys/kernel/pty/reserve'
.b" New in Linux 3.3'
.b" commit e9aba5158a80098447ff207a452a3418ae7ee386'
.b" Some further details can be found in Documentation/sysctl/kernel.txt'
.b" commit c1d171a002942ea2d93b4fbd0c9583c56fce0772'
.b" commit 9d85025b0418163fae079c9ba8f8445212de8568'
.b" commit 5091faa449ee0b7d73bc296a93bca9540fc51d0a'
.b" commit 8e5f1ad116df6b0de65eac458d5e7c318d1c05af'
.b" commit b34a6b1da371ed8af1221459a18c67970f7e3d53'
.b" See also Documentation/sysctl/kernel.txt'
.b" commit f88083005ab319abba5d0b2e4e997558245493c8'
.b" commit 2ca9bb456ada8bc8dc8f77f8fc78207653bbaa92'
.b" commit f4aacea2f5d1a5f7e3154e967d70cf3f711bcd61'
.b" commit 24fe831c17ab8149413874f2fd4e5c8a41fcd294'
.b" FIXME.'
.b" With /proc/sys/kernel/sysctl_writes_strict==1, writes at an
.b" offset other than 0 do not generate an error. Instead, the
.b" write() succeeds, but the file is left unmodified.'
.b" This is surprising. The behavior may change in the future.'
.b" See thread.gmane.org/gmane.linux.man/9197'
.b" \t\tFrom: Michael Kerrisk (man-pages <mtk.manpages@...>'
.b" \t\tSubject: sysctl_writes_strict documentation + an oddity?'
.b" \t\tNewsgroups: gmane.linux.man, gmane.linux.kernel'
.b" \t\tDate: 2015-05-09 08:54:11 GMT'
.b" commit 9d85025b0418163fae079c9ba8f8445212de8568'
.b" The following is based on Documentation/sysctl/kernel.txt'
.b" commit 230633d109e35b0a24277498e773edeb79b4a331'
.b" commit 4eeab4f5580d11bffdcd697684b91b0bca0d5009'
.b" The following is from Documentation/filesystems/proc.txt'
.b" The following is based on the text in Documentation/sysctl/vm.txt'
.b" The following is based on the text in Documentation/sysctl/vm.txt'
.b" The following is from Documentation/sysctl/vm.txt'
.b" The following is from Documentation/sysctl/vm.txt'
.b" commit 49f0ce5f92321cdcf741e35f385669a421013cb7'
.b" The following is adapted from Documentation/sysctl/vm.txt'

.b\" The following is from Documentation/sysctl/vm.txt'
.b\" commit c9b1d0981fccc3d9976d7b7a56e4e0503bc610dd'
.b\" commit 9d85025b0418163fae079c9ba8f8445212de8568'
.b\" commit 0097875bd41528922fb3bb5f348c53f17e00e2fd'
.b\" commit 289f480af87e45f7a6de6ba9b4c061c2e259fe98'
.b\" commit 82f67cd9fca8c8762c15ba7ed0d5747588c1e221'
.b\" \tDate: Fri Feb 16 01:28:13 2007 -0800'
.b\" Text largely derived from Documentation/timers/timer_stats.txt'
.b\" removed in commit dfb4357da6ddbdf57d583ba64361c9d792b0e0b1'
.b\" Date: Wed Feb 8 11:26:59 2017 -0800'
.b\" commit c5c061b8f9726bc2c25e19dec227933a13d1e6b7 deferrable timers'
.b\" FIXME 2.6.13 seems to have /proc/vmcore implemented; document this'
.b\" \tSee Documentation/kdump/kdump.txt'
.b\" \tcommit 666bfddbe8b8fd4fd44617d6c55193d5ac7edb29'
.b\" \tNeeds CONFIG_VMCORE'
.b\"'
.b\" FIXME We need explanations for each of the following fields...'
.b\" commit d23ad42324cc4378132e51f2fc5c9ba6cbe75182'
.b\" commit 81c0a2bb515fd4dae8cab64352877480792b515'
.b\" commit 4f98a2fee8acdb4ac84545df98cccecf130f8db'
.b\" commit 4f98a2fee8acdb4ac84545df98cccecf130f8db'
.b\" commit 4f98a2fee8acdb4ac84545df98cccecf130f8db'
.b\" commit 4f98a2fee8acdb4ac84545df98cccecf130f8db'
.b\" commit 7b854121eb3e5ba0241882ff939e2c485228c9c5'
.b\" commit 5344b7e648980cc2ca613ec03a56a8222ff48820'
.b\" commit f3dbd34460ff54962d3e3244b6bcb7f5295356e6'
.b\" commit 347ce434d57da80fd5809c0c836f206a50999c26'
.b\" commit 972d1a7b140569084439a81265a0f15b74e924e0'
.b\" Linux 2.6.0 had nr_slab'
.b\" commit 972d1a7b140569084439a81265a0f15b74e924e0'
.b\" commit c6a7f5728a1db45d30df55a01adc130b4ab0327c'
.b\" commit edfbe2b0038723e5699ab22695ccd62b5542a5c1'
.b\" commit e129b5c23c2b471d47f1c5d2b8b193fc2034af43'
.b\" commit 49ea7eb65e7c5060807fb9312b1ad4c3eab82e2c'
.b\" commit fc3ba692a4d19019387c5acaea63131f9eab05dd'
.b\" commit a731286de62294b63d8ceb3c5914ac52cc17e690'
.b\" commit a731286de62294b63d8ceb3c5914ac52cc17e690'
.b\" commit 4b02108ac1b3354a22b0d83c684797692efdc395'
.b\" commit ea941f0e2a8c02ae876cd73deb4e1557248f258c'
.b\" commit ea941f0e2a8c02ae876cd73deb4e1557248f258c'
.b\" commit 0d5d823ab4e608ec7b52ac4410de4cb74bbe0edd'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'

.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit ca889e6c45e0b112cb2ca9d35afc66297519b5d5'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_NUMA .'
.b\" commit a528910e12ec7ee203095eb1711468a66b9b60b0'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit a528910e12ec7ee203095eb1711468a66b9b60b0'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit 449dd6984d0e47643c04c807f609dd56d48d5bcc'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit d1ce749a0db12202b711d1aba1d29e823034648d'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit 79da826aee6a10902ef411bc65864bd02102fa83'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit 79da826aee6a10902ef411bc65864bd02102fa83'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
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.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Linux 2.6.0 had pgallocc'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" commit 9328b8faae922e52073785ed6c1eaa8565648a0e'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b\" Present only if the kernel was configured with'

.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 2a1e274acf0b1c192face19a4be7c12d4503eaaf'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Linux 2.6.0 had pgrefill'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 9328b8faae922e52073785ed6c1eaa8565648a0e'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 2a1e274acf0b1c192face19a4be7c12d4503eaaf'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Formerly there were'
.b"\" pgsteal_high'
.b"\" pgsteal_normal'
.b"\" pgsteal_dma32'
.b"\" pgsteal_dma'
.b"\" These were split out into pgsteal_kswapd* and pgsteal_direct*'
.b"\" in commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Linux 2.6.0 had pgsteal'
.b"\" Present only if the kernel was configured with'
.b"\" .\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" commit 9328b8faae922e52073785ed6c1eaa8565648a0e'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'

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.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 904249aa68010c8e223263c922fcbb840a3f42e4'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 2a1e274acf0b1c192face19a4be7c12d4503eaaf'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Linux 2.6.0 had pgscan'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 9328b8faae922e52073785ed6c1eaa8565648a0e'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 2a1e274acf0b1c192face19a4be7c12d4503eaaf'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 9328b8faae922e52073785ed6c1eaa8565648a0e'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'

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.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HIGHMEM .'
.b"\" commit 2a1e274acf0b1c192face19a4be7c12d4503eaaf'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 68243e76ee343d63c6cf76978588a885951e2818'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 24cf72518c79cdca486ed26074ff8151291cf65'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit bb3ab596832b920c703d1aea1ce76d69c0f71fb7'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit bb3ab596832b920c703d1aea1ce76d69c0f71fb7'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5509a5d27b971a90b940e148ca9ca53312e4fa7a'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5509a5d27b971a90b940e148ca9ca53312e4fa7a'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 03c5a6e16322c997bf8f264851bfa3f532ad515f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING .'
.b"\" commit 72403b4a0fbdf433c1fe0127e49864658f6f6468'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING .'

```

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.b"\" commit 03c5a6e16322c997bf8f264851bfa3f532ad515f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING .'
.b"\" commit 03c5a6e16322c997bf8f264851bfa3f532ad515f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING .'
.b"\" commit 03c5a6e16322c997bf8f264851bfa3f532ad515f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING'
.b"\" and'
.b"\" .BR CONFIG_NUMA_BALANCING .'
.b"\" commit 5647bc293ab15f66a7b1cda850c5e9d162a6c7c2'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_MIGRATION .'
.b"\" commit 5647bc293ab15f66a7b1cda850c5e9d162a6c7c2'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_MIGRATION .'
.b"\" commit 397487db696cae0b026a474a5cd66f4e372995e6'
.b"\" Linux 3.8 dropped compact_blocks_moved, compact_pages_moved, and'
.b"\" compact_pagemigrate_failed'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 397487db696cae0b026a474a5cd66f4e372995e6'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 397487db696cae0b026a474a5cd66f4e372995e6'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 56de7263fcf3eb10c8dcdf8d59a9cec831795f3f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'

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.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 56de7263fcf3eb10c8dcdf8d59a9cec831795f3f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 56de7263fcf3eb10c8dcdf8d59a9cec831795f3f'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_COMPACTION .'
.b"\" commit 3b1163006332302117b1b2acf226d4014ff46525'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HUGETLB_PAGE .'
.b"\" commit 3b1163006332302117b1b2acf226d4014ff46525'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_HUGETLB_PAGE .'
.b"\" commit bbfd28eee9fbd73e780b19beb3dc562befbb94fa'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit bbfd28eee9fbd73e780b19beb3dc562befbb94fa'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit bbfd28eee9fbd73e780b19beb3dc562befbb94fa'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5344b7e648980cc2ca613ec03a56a8222ff48820'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5344b7e648980cc2ca613ec03a56a8222ff48820'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5344b7e648980cc2ca613ec03a56a8222ff48820'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" commit 5344b7e648980cc2ca613ec03a56a8222ff48820'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS .'
.b"\" Linux 3.7 removed unevictable_pgs_mlockfreed'
.b"\" commit 81ab4201fb7d91d6b0cd9ad5b4b16776e4bed145'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'

```



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.b"\" commit 81ab4201fb7d91d6b0cd9ad5b4b16776e4bed145'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit 81ab4201fb7d91d6b0cd9ad5b4b16776e4bed145'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit 81ab4201fb7d91d6b0cd9ad5b4b16776e4bed145'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit 81ab4201fb7d91d6b0cd9ad5b4b16776e4bed145'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit d8a8e1f0da3d29d7268b3300c96a059d63901b76'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit d8a8e1f0da3d29d7268b3300c96a059d63901b76'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_TRANSPARENT_HUGEPAGE .'
.b"\" commit 09316c09dde33aae14f34489d9e3d243ec0d5938'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_MEMORY_BALLOON .'
.b"\" commit 09316c09dde33aae14f34489d9e3d243ec0d5938'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS'
.b"\" and'
.b"\" .BR CONFIG_MEMORY_BALLOON .'
.b"\" commit 09316c09dde33aae14f34489d9e3d243ec0d5938'
.b"\" Present only if the kernel was configured with'
.b"\" .BR CONFIG_VM_EVENT_COUNTERS ,'
.b"\" .BR CONFIG_MEMORY_BALLOON ,'
.b"\" and'
.b"\" .BR CONFIG_BALLOON_COMPACTION .'
.b"\" commit 9824cf9753ecbe8f5b47aa9b2f218207defea211'
.b"\" Present only if the kernel was configured with'

```

```
.b\" .BR CONFIG_DEBUG_TLBFLUSH'
.b\" and'
.b\" .BR CONFIG_SMP .'
.b\" commit 9824cf9753ecbe8f5b47aa9b2f218207defea211'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_TLBFLUSH'
.b\" and'
.b\" .BR CONFIG_SMP .'
.b\" commit 9824cf9753ecbe8f5b47aa9b2f218207defea211'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_TLBFLUSH .'
.b\" commit 9824cf9753ecbe8f5b47aa9b2f218207defea211'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_TLBFLUSH .'
.b\" commit 4f115147ff802267d0aa41e361c5aa5bd933d896'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_VM_VMACACHE .'
.b\" commit 4f115147ff802267d0aa41e361c5aa5bd933d896'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_VM_VMACACHE .'
.b\" commit f5f302e21257ebb0c074bbafc37606c26d28cc3d'
.b\" Present only if the kernel was configured with'
.b\" .BR CONFIG_DEBUG_VM_VMACACHE .'
.b\" FIXME more should be said about /proc/zoneinfo'
.b\" .SH ACKNOWLEDGEMENTS'
.b\" The material on /proc/sys/fs and /proc/sys/kernel is closely based on'
.b\" kernel source documentation files written by Rik van Riel.'
```

Found in path(s):

```
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/proc.5
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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/gai.conf.5

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man5/nscd.conf.5
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man8/nscd.8

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- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/print_encoding.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/find_slashes_no_parens.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/remove_COLOPHON.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/convert_to_utf_8.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/add_parens_for_own_funcs.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/find_repeated_words.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/FIXME_list.sh
- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/scripts/unformat_parens.sh

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- * /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/ioctl_ficlonerange.2

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* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/perfmonctl.2
* /opt/cola/permits/1665648640_1683316827.128195/0/manpages-5-02-orig-tar-xz/man-pages-5.02/man2/getunwind.2

1.320 libxdmcp 1.1.3-1

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1.321 libnfnetlink 1.0.1-3

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1.322 kexec-tools 2.0.17

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1.323 x-net 0.2.0

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1.324 ipmi-tool 1.8.18

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1.325 keyutils 1.6.3

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) 19yy <name of author>
```

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) 19yy name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

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Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into
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consider it more useful to permit linking proprietary applications with the
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Public License instead of this License.

1.326 Im-sensors 3.5.0-1

1.326.1 Available under license :

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Version 2, June 1991

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- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>
```

```
This program is free software; you can redistribute it and/or modify  
it under the terms of the GNU General Public License as published by  
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(at your option) any later version.
```

```
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```

```
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51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.
```

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

The hypothetical commands ``show w'` and ``show c'` should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than ``show w'` and ``show c'`; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

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'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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Version 2.1, February 1999

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A "library" means a collection of software functions and/or data

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- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no

charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6,

whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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Here is a list of the main contributors to lm-sensors version 3.

- * Frodo Looijaard
Original author of libsensors, sensors-detect, sensors and isadump.
- * Merlin Hughes
Original author of sensord.

* Bob Schlaermann

Dynamic chip feature detection (a.k.a. generic chip support) in libensors and sensors.

* Mark M. Hoffman

Many improvements to the libensors configuration file scanner.

* Jean Delvare

New libensors API, and migration of sensors and sensord thereto.

Many optimizations in libensors and sensors.

Configuration file converter.

Rewrite of sensors-detect.

Support for multiple configuration files in libensors.

1.327 libraw 2.1.2 2

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1.329 libxcursor 1.2.0-1

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1.330 numactl 2.0.12-3

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numactl

[![Build Status](https://travis-ci.org/numactl/numactl.svg?branch=master)](https://travis-ci.org/numactl/numactl)

Simple NUMA policy support. It consists of a numactl program to run other programs with a specific NUMA policy and a libnuma shared library ("NUMA API") to set NUMA policy in applications.

The libnuma binary interface is supposed to stay binary compatible.

Incompatible changes will use new symbol version numbers.

In addition there are various test and utility programs, like ``numastat`` to display NUMA allocation statistics and ``memhog``.

In ``test/`` there is a small regression test suite.

Note that ``regress`` assumes a unloaded machine with memory free on each node. Otherwise you will get spurious failures in the non-strict policies (prefered, interleave.)

See the manpages [``numactl.8``](<https://linux.die.net/man/8/numactl>) and [``numa.3``](<https://linux.die.net/man/3/numa>) for details.

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The manpages are under the same license as the Linux manpages (see the files.)

``numademo`` links with a library derived from the C version of STREAM by John D. McCalpin and Joe R. Zagar for one sub benchmark. See ``stream_lib.c`` for the license. In particular when you publish ``numademo`` output you might need to pay attention there or filter out the STREAM results.

It also uses a public domain Mersenne Twister implementation from Michael Brundage.

Version 2.0.10-rc2: (C)2014 SGI

Author:

Andi Kleen, SUSE Labs

Version 2.0.0 by Cliff Wickman (``cpw@sgi.com``), Christoph Lameter (``clameter@sgi.com``) and Lee Schermerhorn (``lee.schermerhorn@hp.com``).

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1.331 gnu-grep 3.7

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1.333 graphite 1:1.3.13 1

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1.334 md5-simd 1.1.0

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1.335 gc 8.0.4

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This is a string packages that uses a tree-based representation. See cord.h for a description of the functions provided. Ec.h describes "extensible cords", which are essentially output streams that write to a cord. These allow for efficient construction of cords without requiring a bound on the size of a cord.

More details on the data structure can be found in

Boehm, Atkinson, and Plass, "Ropes: An Alternative to Strings", Software Practice and Experience 25, 12, December 1995, pp. 1315-1330.

A fundamentally similar "rope" data structure is also part of SGI's standard template library implementation, and its descendants, which include the GNU C++ library. That uses reference counting by default.

There is a short description of that data structure at <http://www.sgi.com/tech/stl/ropeimpl.html>.

All of these are descendants of the "ropes" in Xerox Cedar.

cord/tests/de.c is a very dumb text editor that illustrates the use of cords.

It maintains a list of file versions. Each version is simply a cord representing the file contents. Nonetheless, standard editing operations are efficient, even on very large files.

(Its 3 line "user manual" can be obtained by invoking it without arguments. Note that ^R^N and ^R^P move the cursor by almost a screen. It does not understand tabs, which will show up as highlighted "I"s. Use the UNIX "expand" program first.)

To build the editor, type "make cord/de" in the gc directory.

Note that CORD_printf and friends use C functions with variable numbers

of arguments in non-standard-conforming ways. This code is known to break on some platforms, notably PowerPC. It should be possible to build the remainder of the library (everything but cordprnt.c) on any platform that supports the collector.

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/doc/README.cords

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/darwin_stop_world.c

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/tools/threadlibs.c

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/pthread_start.c

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## Process this file with automake to produce Makefile.in.

# installed documentation
if ENABLE_DOCS
dist_doc_DATA = \
  AUTHORS \
  README.md \
  doc/README.DGUX386 \
  doc/README.Mac \
  doc/README.OS2 \
  doc/README.amiga \
  doc/README.arm.cross \
  doc/README.autoconf \
  doc/README.cmake \
  doc/README.cords \
  doc/README.darwin \
  doc/README.environment \
  doc/README.ews4800 \
  doc/README.hp \
  doc/README.linux \
  doc/README.macros \
  doc/README.rs6000 \
  doc/README.sgi \
  doc/README.solaris2 \
  doc/README.symbian \
  doc/README.uts \
  doc/README.win32 \
  doc/README.win64 \
  doc/debugging.md \
  doc/finalization.md \
  doc/gcdescr.md \
  doc/gcinterface.md \
  doc/leak.md \
  doc/overview.md \
  doc/porting.md \
  doc/scale.md \
  doc/simple_example.md \
  doc/tree.md
```

dist_man3_MANS = doc/gc.man

endif

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/doc/doc.am

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/cord/tests/de_cmds.h

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/cord/tests/de_win.h

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```

Found in path(s):

```

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COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/win32_threads.c

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```

```

# GC_SET_VERSION

```

```

# sets and AC_DEFINES GC_VERSION_MAJOR, GC_VERSION_MINOR and GC_VERSION_MICRO

```

```

# based on the contents of PACKAGE_VERSION; PACKAGE_VERSION must conform to

```

```

# [0-9]+[.][0-9]+[.][0-9]+

```

```

#

```

```

AC_DEFUN([GC_SET_VERSION], [

```

```

AC_MSG_CHECKING(GC version numbers)

```

```

GC_VERSION_MAJOR=`echo $PACKAGE_VERSION | sed 's/^\([[0-9]]\[[0-9]]*\)[[.]].*/\1/g`

```

```

GC_VERSION_MINOR=`echo $PACKAGE_VERSION | sed 's/^\[[^]]*\[[.]]\([[0-9]]\[[0-9]]*\).*/\1/g`

```

```

GC_VERSION_MICRO=`echo $PACKAGE_VERSION | sed 's/^\[[^]]*\[[.]]\[[^]]*\[[.]]\([[0-9]]\[[0-9]]*\)\$1/g`

```

```

if test :$GC_VERSION_MAJOR: = :: \

```

```

    -o :$GC_VERSION_MINOR: = :: \

```

```

    -o :$GC_VERSION_MICRO: = :: ;

```

```

then

```

```

    AC_MSG_RESULT(invalid)

```

```

    AC_MSG_ERROR([nonconforming PACKAGE_VERSION=$PACKAGE_VERSION])

```

```

fi

```

```

AC_DEFINE_UNQUOTED([GC_VERSION_MAJOR], $GC_VERSION_MAJOR,

```

```

    [The major version number of this GC release.])

```

```

AC_DEFINE_UNQUOTED([GC_VERSION_MINOR], $GC_VERSION_MINOR,

```

```

    [The minor version number of this GC release.])

```

```

AC_DEFINE_UNQUOTED([GC_VERSION_MICRO], $GC_VERSION_MICRO,

```

```

    [The micro version number of this GC release.])

```

```

AC_MSG_RESULT(major=$GC_VERSION_MAJOR minor=$GC_VERSION_MINOR \

```

micro=\$GC_VERSION_MICRO)

)

sinclude(libtool.m4)

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/m4/gc_set_version.m4

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/tests/CMakeLists.txt

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/mark_rts.c
* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/mach_dep.c
* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/blacklst.c
* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/extra/real_malloc.c
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## Process this file with automake to produce part of Makefile.in.

# installed headers
#
pkginclude_HEADERS += \
    include/gc.h \
    include/gc_backptr.h \
    include/gc_config_macros.h \
    include/gc_gcj.h \
    include/gc_inline.h \
    include/gc_mark.h \
    include/gc_pthread_redirects.h \
    include/gc_tiny_fl.h \
    include/gc_typed.h \
    include/gc_version.h \
    include/javaxfc.h \
    include/leak_detector.h

# headers which are not installed
#
dist_noinst_HEADERS += \
    include/cord.h \
    include/cord_pos.h \
    include/ec.h \
    include/gc_alloc_ptrs.h \
    include/new_gc_alloc.h \
    include/private/darwin_semaphore.h \
    include/private/darwin_stop_world.h \
    include/private/dbg_mlc.h \
    include/private/gc_atomic_ops.h \
    include/private/gc_hdrs.h \
    include/private/gc_locks.h \
    include/private/gc_pmark.h \
    include/private/gc_priv.h \
    include/private/gcconfig.h \
    include/private/msvc_dbg.h \
    include/private/pthread_stop_world.h \
    include/private/pthread_support.h \
    include/private/specific.h \
```

include/private/thread_local_alloc.h

```
# unprefix header
include_HEADERS += \
    include/extra/gc.h
```

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/include/include.am

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/include/gc_mark.h
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- * /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/cord/cordxtra.c
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- * /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/cord/tests/cordtest.c
- * /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/cord/cordbscs.c
- * /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/include/cord.h

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[Interface Overview](gcinterface.md) | [Tutorial Slides](http://www.hboehm.info/gc/04tutorial.pdf) |

[FAQ](http://www.hboehm.info/gc/faq.html) | [Example](simple_example.md) |

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---|---|---|---|---|---

A garbage collector for C and C++

- * Platforms
- * Scalable multiprocessor versions
- * Some collector details
- * Further reading
- * Current users
- * Local Links for this collector
- * Local Background Links
- * Contacts and Mailing List

[This is an updated version of the page formerly at
`www.hpl.hp.com/personal/Hans_Boehm/gc/`, before that at
`http://reality.sgi.com/boehm/gc.html` and before that at
`ftp://ftp.parc.xerox.com/pub/gc/gc.html`.]

The

[Boehm](http://www.hboehm.info)-[Demers](http://www.cs.cornell.edu/annual_report/00-01/bios.htm#demers)-
[Weiser](http://www.ubiq.com/hypertext/weiser/weiser.html)

conservative Garbage Collector (**BDWGC**) can be used as a garbage collecting replacement for C `malloc` or C++ `new`. It allows you to allocate memory basically as you normally would, without explicitly deallocating memory that is no longer useful. The collector automatically recycles memory when it determines that it can no longer be otherwise accessed. A simple example of such a use is given [here](simple_example.md).

The collector is also used by a number of programming language implementations that either use C as intermediate code, want to facilitate easier

interoperation with C libraries, or just prefer the simple collector interface. For a more detailed description of the interface, see [\[here\]\(gcinterface.md\)](#).

Alternatively, the garbage collector may be used as a [\[leak detector\]\(leak.md\)](#) for C or C++ programs, though that is not its primary goal.

Typically several versions are offered for [\[downloading\]\(https://github.com/ivmai/bdwgc/wiki/Download\)](#): preview, stable, legacy. Usually you should use the one marked as the `_latest stable_release`. Preview versions may contain additional features, platform support, but are likely to be less well tested. The list of changes for each version is specified on the [\[releases\]\(https://github.com/ivmai/bdwgc/releases\)](#) page.

The arguments for and against conservative garbage collection in C and C++ are briefly discussed [\[here\]\(http://www.hboehm.info/gc/issues.html\)](#). The beginnings of a frequently-asked-questions list are [\[here\]\(http://www.hboehm.info/gc/faq.html\)](#).

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Empirically, this collector works with most unmodified C programs, simply by replacing ``malloc`` with ``GC_malloc`` calls, replacing ``realloc`` with ``GC_realloc`` calls, and removing free calls. Exceptions are discussed [\[here\]\(http://www.hboehm.info/gc/issues.html\)](#).

Platforms

The collector is not completely portable, but the distribution includes ports to most standard PC and UNIX/Linux platforms. The collector should work on Linux, *BSD, recent Windows versions, MacOS X, HP/UX, Solaris, Tru64, Irix and a few other operating systems. Some ports are more polished than others.

Irix pthreads, Linux threads, Win32 threads, Solaris threads (pthreads only), HP/UX 11 pthreads, Tru64 pthreads, and MacOS X threads are supported in recent versions.

Separately distributed ports

For MacOS 9/Classic use, Patrick Beard's latest port is available from

``http://homepage.mac.com/pbeard/gc/``. (Unfortunately, that's now quite dated. I'm not in a position to test under MacOS. Although I try to incorporate changes, it is impossible for me to update the project file.)

Precompiled versions of the collector for NetBSD are available [here](<ftp://ftp.netbsd.org/pub/pkgsrc/current/pkgsrc/devel/boehm-gc/README.html>).

[Debian Linux](<http://www.debian.org/>) includes prepackaged versions of the collector.

Scalable multiprocessor versions

Kenjiro Taura, Toshio Endo, and Akinori Yonezawa have made available a [parallel collector](<http://ieeexplore.ieee.org/abstract/document/1592629/>) based on this one. Their collector takes advantage of multiple processors during a collection. Starting with GC v6.0alpha1 we also do this, though with more modest processor scalability goals. Our approach is discussed briefly in [this document]([scale.md](#)).

Some Collector Details

The collector uses a [mark-sweep](<http://www.hboehm.info/gc/complexity.html>) algorithm. It provides incremental and generational collection under operating systems which provide the right kind of virtual memory support. (Currently this includes SunOS[45], IRIX, OSF/1, Linux, and Windows, with varying restrictions.) It allows [`_finalization_`]([finalization.md](#)) code to be invoked when an object is collected. It can take advantage of type information to locate pointers if such information is provided, but it is usually used without such information. See the README and ``gc.h`` files in the distribution for more details.

For an overview of the implementation, see [here]([gcdescr.md](#)).

The garbage collector distribution includes a C string (``cord.h``) package that provides for fast concatenation and substring operations on long strings. A simple curses- and win32-based editor that represents the entire file as a cord is included as a sample application.

Performance of the non-incremental collector is typically competitive with ``malloc`/`free`` implementations. Both space and time overhead are likely to be only slightly higher for programs written for ``malloc`/`free`` (see Detlefs, Dosser and Zorn's

[Memory Allocation Costs in Large C and C++

Programs](<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.30.3073&rep=rep1&type=ps>)).

For programs allocating primarily very small objects, the collector may be faster; for programs allocating primarily large objects it will be slower.

If the collector is used in a multi-threaded environment and configured for

thread-local allocation, it may in some cases significantly outperform
`malloc`/`free` allocation in time.

We also expect that in many cases any additional overhead will be more than
compensated for by decreased copying etc. if programs are written and tuned
for garbage collection.

Further Reading:

**The beginnings of a frequently asked questions list for this collector are
[here](http://www.hboehm.info/gc/faq.html)**.

The following provide information on garbage collection in general:
Paul Wilson's [garbage collection ftp archive](ftp://ftp.cs.utexas.edu/pub/garbage)
and [GC survey](ftp://ftp.cs.utexas.edu/pub/garbage/gcsurvey.ps).

The Ravenbrook
[Memory Management Reference](http://www.memorymanagement.org/).

David Chase's [GC FAQ](http://www.iecc.com/gclist/GC-faq.html).

Richard Jones'
[Garbage Collection Page](https://www.cs.kent.ac.uk/people/staff/rej/gc.html)
and his [book](http://www.cs.kent.ac.uk/people/staff/rej/gcbook/gcbook.html).

**The following papers describe the collector algorithms we use and the
underlying design decisions at a higher level.**

(Some of the lower level details can be found [here](gcdescr.md).)

The first one is not available electronically due to copyright considerations.
Most of the others are subject to ACM copyright.

Boehm, H., Dynamic Memory Allocation and Garbage Collection,
Computers in Physics 9, 3, May/June 1995, pp. 297-303. This is directed
at an otherwise sophisticated audience unfamiliar with memory allocation
issues. The algorithmic details differ from those in the implementation. There
is a related letter to the editor and a minor correction in the next issue.

Boehm, H., and [M. Weiser](http://www.ubiq.com/hypertext/weiser/weiser.html),
[Garbage Collection in an Uncooperative Environment](http://www.hboehm.info/spe_gc_paper/),
Software Practice & Experience, September 1988, pp. 807-820.

Boehm, H., A. Demers, and S. Shenker,
[Mostly Parallel Garbage Collection](http://www.hboehm.info/gc/papers/pldi91.ps.Z),
Proceedings of the ACM SIGPLAN '91 Conference on Programming Language Design
and Implementation, _SIGPLAN Notices 26_, 6 (June 1991), pp. 157-164.

Boehm, H.,
[Space Efficient Conservative Garbage Collection](<http://www.hboehm.info/gc/papers/pldi93.ps.Z>),
Proceedings of the ACM SIGPLAN '93 Conference on Programming Language Design
and Implementation, *_SIGPLAN Notices 28_*, 6 (June 1993), pp. 197-206.

Boehm, H., Reducing Garbage Collector Cache Misses,
Proceedings of the 2000 International Symposium on Memory Management.
[Official version](<http://portal.acm.org/citation.cfm?doid=362422.362438>).
[Technical report](<http://www.hpl.hp.com/techreports/2000/HPL-2000-99.html>)
version. Describes the prefetch strategy incorporated into the collector for
some platforms. Explains why the sweep phase of a *_mark-sweep_* collector
should not really be a distinct phase.

M. Serrano, H. Boehm, Understanding Memory Allocation of Scheme Programs,
*_Proceedings of the Fifth ACM SIGPLAN International Conference on Functional
Programming_*, 2000, Montreal, Canada, pp. 245-256.
[Official version](<http://dl.acm.org/citation.cfm?id=351264>). Earlier
[Technical Report](<http://www.hpl.hp.com/techreports/2000/HPL-2000-62.html>)
version. Includes some discussion of the collector debugging facilities for
identifying causes of memory retention.

Boehm, H., Fast Multiprocessor Memory Allocation and Garbage Collection,
[HP Labs Technical Report HPL 2000-165](<http://www.hpl.hp.com/techreports/2000/HPL-2000-165.html>).
Discusses the parallel collection algorithms, and presents some performance
results.

Boehm, H., Bounding Space Usage of Conservative Garbage Collectors,
*_Proceedings of the 2002 ACM SIGPLAN-SIGACT Symposium on Principles
of Programming Languages_*, Jan. 2002, pp. 93-100.
[Official version](<http://portal.acm.org/citation.cfm?doid=503272.503282>).
[Technical report](<http://www.hpl.hp.com/techreports/2001/HPL-2001-251.html>)
version. Includes a discussion of a collector facility to much more reliably
test for the potential of unbounded heap growth.

****The following papers discuss language and compiler restrictions necessary
to guaranteed safety of conservative garbage collection.****

We thank John Levine and JCLT for allowing us to make the second paper
available electronically, and providing PostScript for the final version.

Boehm, H.,
[Simple Garbage-Collector-Safety](<http://www.hboehm.info/gc/papers/pldi96.ps.gz>),
Proceedings of the ACM SIGPLAN '96 Conference on Programming Language Design
and Implementation.

Boehm, H., and D. Chase,
[A Proposal for Garbage-Collector-Safe C Compilation](<http://www.hboehm.info/gc/papers/boecha.ps.gz>),
Journal of C Language Translation 4, 2 (December 1992), pp. 126-141.

****Other related information:****

The Detlefs, Dosser and Zorn's

[Memory Allocation Costs in Large C and C++

Programs](<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.30.3073&rep=rep1&type=ps>).

This is a performance comparison of the Boehm-Demers-Weiser collector to `malloc`/`free`, using programs written for `malloc`/`free`.

Joel Bartlett's

[mostly copying conservative garbage collector for C++](<ftp://gatekeeper.dec.com/pub/compaq/WRL/research-reports/WRL-TN-12.ps>).

John Ellis and David Detlef's

[Safe Efficient Garbage Collection for C++](<http://dl.acm.org/citation.cfm?id=1267983>) proposal.

Henry Baker's [paper collection](<http://home.pipeline.com/%7Ehbaker1/>).

Slides for Hans Boehm's

[Allocation and GC Myths](<http://www.hboehm.info/gc/myths.ps>) talk.

Current users:

Known current users of some variant of this collector include:

The runtime system for [GCJ](<https://gcc.gnu.org/onlinedocs/gcc-4.8.5/gcj/>), the static GNU java compiler.

[W3m](<http://w3m.sourceforge.net/>), a text-based web browser.

Some versions of the Xerox DocuPrint printer software.

The [Mozilla](<http://www.mozilla.org/>) project, as leak detector.

The [Mono](<http://www.mono-project.com>) project, an open source implementation of the .NET development framework.

The [DotGNU Portable.NET project](<http://www.gnu.org/projects/dotgnu/>), another open source .NET implementation.

The [Irssi IRC client](<http://irssi.org/>).

[The Berkeley Titanium project](<http://titanium.cs.berkeley.edu/>).

[The NAGWare f90 Fortran 90 compiler](http://www.nag.co.uk/nagware/NP/NP_desc.asp).

Elwood Corporation's Eclipse Common Lisp system, C library, and translator.

The [Bigloo Scheme](<http://www-sop.inria.fr/mimoso/fp/Bigloo/>) and [Camloo ML compilers](<https://github.com/samoht/camloo>) written by Manuel Serrano and others.

Brent Benson's [libscheme](<http://www.cs.indiana.edu/scheme-repository/libscheme-vhll/final.html>).

The MzScheme scheme implementation.

The [University of Washington Cecil Implementation](<http://www.cs.washington.edu/research/projects/cecil/www/cecil-home.html>).

[The Berkeley Sather implementation](<http://www1.icsi.berkeley.edu/~sather/>).

[The Berkeley Harmonia Project](<http://www.cs.berkeley.edu/~harmonia/harmonia/index.html>).

The [Toba](<http://www.cs.arizona.edu/projects/sumatra/toba/>) Java Virtual Machine to C translator.

The [Gwydion Dylan compiler](<http://www.gwydiondylan.org/>).

The [GNU Objective C runtime](<http://gcc.gnu.org/onlinedocs/gcc/Objective-C.html>).

[Macaulay 2](<http://www.math.uiuc.edu/Macaulay2>), a system to support research in algebraic geometry and commutative algebra.

The [Vesta](<http://www.vestasys.org/>) configuration management system.

[Visual Prolog 6](<http://www.visual-prolog.com/>).

[Asymptote LaTeX-compatible vector graphics language](<http://asymptote.sf.net/>).

More information on the BDWGC primary site

[A simple illustration of how to build and use the collector]([simple_example.md](#)).

[Description of alternate interfaces to the garbage collector]([gcinterface.md](#)).

[Slides from an ISMM 2004 tutorial about the GC](<http://www.hboehm.info/gc/04tutorial.pdf>).

[A FAQ (frequently asked questions) list](<http://www.hboehm.info/gc/faq.html>).

[How to use the garbage collector as a leak detector]([leak.md](#)).

[Some hints on debugging garbage collected applications](debugging.md).

[An overview of the implementation of the garbage collector](gcdescr.md).

[The data structure used for fast pointer lookups](tree.md).

[Scalability of the collector to multiprocessors](scale.md).

[Directory](http://www.hboehm.info/gc/gc_source/) containing the distribution files of all garbage collector releases. It duplicates

[Download](https://github.com/ivmai/bdwgc/wiki/Download) page on GitHub.

More background information

[An attempt to establish a bound on space usage of conservative garbage collectors](http://www.hboehm.info/gc/bounds.html).

[Mark-sweep versus copying garbage collectors and their complexity](http://www.hboehm.info/gc/complexity.html).

[Pros and cons of conservative garbage collectors, in comparison to other collectors](http://www.hboehm.info/gc/conservative.html).

[Issues related to garbage collection vs. manual memory management in C/C++](http://www.hboehm.info/gc/issues.html).

[An example of a case in which garbage collection results in a much faster implementation as a result of reduced synchronization](http://www.hboehm.info/gc/example.html).

[Slide set discussing performance of nonmoving garbage collectors](http://www.hboehm.info/gc/nonmoving/).

[Slide set discussing `_Destructors, Finalizers, and Synchronization_`, POPL 2003](http://www.hboehm.info/pop103/web/).

[Paper corresponding to above slide set](http://portal.acm.org/citation.cfm?doid=604131.604153) ([Technical Report](http://www.hpl.hp.com/techreports/2002/HPL-2002-335.html) version).

[A Java/Scheme/C/C++ garbage collection benchmark](http://www.hboehm.info/gc/gc_bench/).

[Slides for talk on memory allocation myths](http://www.hboehm.info/gc/myths.ps).

[Slides for OOPSLA 98 garbage collection talk](http://www.hboehm.info/gc/gctalk.ps).

[Related papers](http://www.hboehm.info/gc/papers/).

Contacts and new release announcements

GitHub and Stack Overflow are the major two places for communication.

Technical questions (how to, how does it work, etc.) should be posted to [Stack Overflow](https://stackoverflow.com/questions/tagged/boehm-gc) with `_boehm-gc_` tag.

To contribute, please rebase your code to the latest [master](https://github.com/ivmai/bdwgc/tree/master/) and submit a [pull request](https://github.com/ivmai/bdwgc/pulls) to GitHub.

To report a bug, or propose (request) a new feature, create a [GitHub issue](https://github.com/ivmai/bdwgc/issues). Please make sure it has not been reported yet by someone else.

To receive notifications on every release, please subscribe to [Releases RSS feed](https://github.com/ivmai/bdwgc/releases.atom). Notifications on all issues and pull requests are available by [watching](https://github.com/ivmai/bdwgc/watchers) the project.

Mailing lists (`bdwgc-announce@lists.opendylan.org`, `bdwgc@lists.opendylan.org`, and the former `gc-announce@linux.hpl.hp.com` and `gc@linux.hpl.hp.com`) are not used at this moment. Their content is available in [bdwgc-announce](https://github.com/ivmai/bdwgc/files/1037650/bdwgc-announce-mailing-list-archive-2014_02.tar.gz) and [bdwgc](https://github.com/ivmai/bdwgc/files/1038163/bdwgc-mailing-list-archive-2017_04.tar.gz) archive files, respectively. The gc list archive may also be read at [Narkive](http://bdwgc.opendylan.narkive.com).

Some prior discussion of the collector has taken place on the gcc java mailing list, whose archives appear [here](http://gcc.gnu.org/ml/java/), and also on [gclist@iecc.com](http://lists.tunes.org/mailman/listinfo/gclist).

Found in path(s):

```
* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/doc/overview.md
```

No license file was found, but licenses were detected in source scan.

```
/*
```

```
* Copyright 1988, 1989 Hans-J. Boehm, Alan J. Demers
```

```
* Copyright (c) 1991-1996 by Xerox Corporation. All rights reserved.
```

```
* Copyright (c) 1996-1999 by Silicon Graphics. All rights reserved.
```

```
* Copyright (c) 1999-2004 Hewlett-Packard Development Company, L.P.
```

```
*
```

```
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```

```
* OR IMPLIED. ANY USE IS AT YOUR OWN RISK.
```

```
*
```

- * Permission is hereby granted to use or copy this program
- * for any purpose, provided the above notices are retained on all copies.
- * Permission to modify the code and to distribute modified code is granted,
- * provided the above notices are retained, and a notice that the code was
- * modified is included with the above copyright notice.
- */

Found in path(s):

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/reclaim.c

No license file was found, but licenses were detected in source scan.

Boehm-Demers-Weiser Garbage Collector

This is version 8.0.4 of a conservative garbage collector for C and C++.

Download

You might find a more recent/stable version on the [Download](<https://github.com/ivmai/bdwgc/wiki/Download>) page, or [BDWGC site](<http://www.hboehm.info/gc/>).

Also, the latest bug fixes and new features are available in the [development repository](<https://github.com/ivmai/bdwgc>).

Overview

This is intended to be a general purpose, garbage collecting storage allocator. The algorithms used are described in:

- * Boehm, H., and M. Weiser, "Garbage Collection in an Uncooperative Environment", *Software Practice & Experience*, September 1988, pp. 807-820.
- * Boehm, H., A. Demers, and S. Shenker, "Mostly Parallel Garbage Collection", *Proceedings of the ACM SIGPLAN '91 Conference on Programming Language Design and Implementation*, SIGPLAN Notices 26, 6 (June 1991), pp. 157-164.
- * Boehm, H., "Space Efficient Conservative Garbage Collection", *Proceedings of the ACM SIGPLAN '91 Conference on Programming Language Design and Implementation*, SIGPLAN Notices 28, 6 (June 1993), pp. 197-206.
- * Boehm H., "Reducing Garbage Collector Cache Misses", *Proceedings of the 2000 International Symposium on Memory Management*.

Possible interactions between the collector and optimizing compilers are

discussed in

* Boehm, H., and D. Chase, "A Proposal for GC-safe C Compilation",
The Journal of C Language Translation 4, 2 (December 1992).

and

* Boehm H., "Simple GC-safe Compilation", Proceedings of the ACM SIGPLAN '96
Conference on Programming Language Design and Implementation.

Unlike the collector described in the second reference, this collector operates either with the mutator stopped during the entire collection (default) or incrementally during allocations. (The latter is supported on fewer machines.) On the most common platforms, it can be built with or without thread support. On a few platforms, it can take advantage of a multiprocessor to speed up garbage collection.

Many of the ideas underlying the collector have previously been explored by others. Notably, some of the run-time systems developed at Xerox PARC in the early 1980s conservatively scanned thread stacks to locate possible pointers (cf. Paul Rovner, "On Adding Garbage Collection and Runtime Types to a Strongly-Typed Statically Checked, Concurrent Language" Xerox PARC CSL 84-7). Doug McIlroy wrote a simpler fully conservative collector that was part of version 8 UNIX (tm), but appears to not have received widespread use.

Rudimentary tools for use of the collector as a [leak detector](doc/leak.md) are included, as is a fairly sophisticated string package "cord" that makes use of the collector. (See doc/README.cords and H.-J. Boehm, R. Atkinson, and M. Plass, "Ropes: An Alternative to Strings", Software Practice and Experience 25, 12 (December 1995), pp. 1315-1330. This is very similar to the "rope" package in Xerox Cedar, or the "rope" package in the SGI STL or the g++ distribution.)

Further collector documentation can be found in the [overview](doc/overview.md).

General Description

This is a garbage collecting storage allocator that is intended to be used as a plug-in replacement for C's malloc.

Since the collector does not require pointers to be tagged, it does not attempt to ensure that all inaccessible storage is reclaimed. However, in our experience, it is typically more successful at reclaiming unused memory than most C programs using explicit deallocation. Unlike manually introduced leaks, the amount of unreclaimed memory typically stays

bounded.

In the following, an "object" is defined to be a region of memory allocated by the routines described below.

Any objects not intended to be collected must be pointed to either from other such accessible objects, or from the registers, stack, data, or statically allocated bss segments. Pointers from the stack or registers may point to anywhere inside an object. The same is true for heap pointers if the collector is compiled with ``ALL_INTERIOR_POINTERS`` defined, or ``GC_all_interior_pointers`` is otherwise set, as is now the default.

Compiling without ``ALL_INTERIOR_POINTERS`` may reduce accidental retention of garbage objects, by requiring pointers from the heap to the beginning of an object. But this no longer appears to be a significant issue for most programs occupying a small fraction of the possible address space.

There are a number of routines which modify the pointer recognition algorithm. ``GC_register_displacement`` allows certain interior pointers to be recognized even if ``ALL_INTERIOR_POINTERS`` is not defined. ``GC_malloc_ignore_off_page`` allows some pointers into the middle of large objects to be disregarded, greatly reducing the probability of accidental retention of large objects. For most purposes it seems best to compile with ``ALL_INTERIOR_POINTERS`` and to use ``GC_malloc_ignore_off_page`` if you get collector warnings from allocations of very large objects. See [\[here\]\(doc/debugging.md\)](#) for details.

`_WARNING_`: pointers inside memory allocated by the standard ``malloc`` are not seen by the garbage collector. Thus objects pointed to only from such a region may be prematurely deallocated. It is thus suggested that the standard ``malloc`` be used only for memory regions, such as I/O buffers, that are guaranteed not to contain pointers to garbage collectible memory. Pointers in C language automatic, static, or register variables, are correctly recognized. (Note that ``GC_malloc_uncollectable`` has semantics similar to standard `malloc`, but allocates objects that are traced by the collector.)

`_WARNING_`: the collector does not always know how to find pointers in data areas that are associated with dynamic libraries. This is easy to remedy IF you know how to find those data areas on your operating system (see ``GC_add_roots``). Code for doing this under SunOS, IRIX 5.X and 6.X, HP/UX, Alpha OSF/1, Linux, and win32 is included and used by default. (See `doc/README.win32` for Win32 details.) On other systems pointers from dynamic library data areas may not be considered by the collector. If you're writing a program that depends on the collector scanning dynamic library data areas, it may be a good idea to include

at least one call to ``GC_is_visible`` to ensure that those areas are visible to the collector.

Note that the garbage collector does not need to be informed of shared read-only data. However if the shared library mechanism can introduce discontinuous data areas that may contain pointers, then the collector does need to be informed.

Signal processing for most signals may be deferred during collection, and during uninterruptible parts of the allocation process.

Like standard ANSI C mallocs, by default it is unsafe to invoke malloc (and other GC routines) from a signal handler while another malloc call may be in progress.

The allocator/collector can also be configured for thread-safe operation. (Full signal safety can also be achieved, but only at the cost of two system calls per malloc, which is usually unacceptable.)

`_WARNING_`: the collector does not guarantee to scan thread-local storage (e.g. of the kind accessed with ``pthread_getspecific``). The collector does scan thread stacks, though, so generally the best solution is to ensure that any pointers stored in thread-local storage are also stored on the thread's stack for the duration of their lifetime. (This is arguably a longstanding bug, but it hasn't been fixed yet.)

Installation and Portability

As distributed, the collector operates silently

In the event of problems, this can usually be changed by defining the ``GC_PRINT_STATS`` or ``GC_PRINT_VERBOSE_STATS`` environment variables. This will result in a few lines of descriptive output for each collection.

(The given statistics exhibit a few peculiarities.

Things don't appear to add up for a variety of reasons, most notably fragmentation losses. These are probably much more significant for the contrived program "test.c" than for your application.)

On most Unix-like platforms, the collector can be built either using a GNU autoconf-based build infrastructure (type ``../configure; make`` in the simplest case), or with a classic makefile by itself (type ``make -f Makefile.direct``).

Please note that the collector source repository does not contain configure and similar auto-generated files, thus the full procedure of autoconf-based build of ``master`` branch of the collector could look like:

```
git clone git://github.com/ivmai/bdwgc.git
cd bdwgc
```

```
git clone git://github.com/ivmai/libatomic_ops.git
./autogen.sh
./configure
make -j
make check
```

Cloning of `libatomic_ops` is now optional provided the compiler supports atomic intrinsics.

Below we focus on the collector build using classic makefile.

For the Makefile.direct-based process, typing `make check` instead of `make` will automatically build the collector and then run `setjmp_test` and `gctest`. `Setjmp_test` will give you information about configuring the collector, which is useful primarily if you have a machine that's not already supported. Gctest is a somewhat superficial test of collector functionality. Failure is indicated by a core dump or a message to the effect that the collector is broken. Gctest takes about a second to two to run on reasonable 2007 vintage desktops. It may use up to about 30MB of memory. (The multi-threaded version will use more. 64-bit versions may use more.) `make test` will also, as its last step, attempt to build and test the "cord" string library.)

Makefile.direct will generate a library gc.a which you should link against. Typing "make cords" will add the cord library to gc.a.

The GNU style build process understands the usual targets. `make check` runs a number of tests. `make install` installs at least libgc, and libcord. Try `./configure --help` to see the configuration options. It is currently not possible to exercise all combinations of build options this way.

It is suggested that if you need to replace a piece of the collector (e.g. GC_mark_rts.c) you simply list your version ahead of gc.a on the ld command line, rather than replacing the one in gc.a. (This will generate numerous warnings under some versions of AIX, but it still works.)

All include files that need to be used by clients will be put in the include subdirectory. (Normally this is just gc.h. `make cords` adds "cord.h" and "ec.h".)

The collector currently is designed to run essentially unmodified on machines that use a flat 32-bit or 64-bit address space. That includes the vast majority of Workstations and X86 (X >= 3) PCs. (The list here was deleted because it was getting too long and constantly out of date.)

In a few cases (Amiga, OS/2, Win32, MacOS) a separate makefile or equivalent is supplied. Many of these have separate README.system files.

Dynamic libraries are completely supported only under SunOS/Solaris, (and even that support is not functional on the last Sun 3 release), Linux, FreeBSD, NetBSD, IRIX 5&6, HP/UX, Win32 (not Win32S) and OSF/1 on DEC AXP machines plus perhaps a few others listed near the top of `dyn_load.c`. On other machines we recommend that you do one of the following:

- 1) Add dynamic library support (and send us the code).
- 2) Use static versions of the libraries.
- 3) Arrange for dynamic libraries to use the standard `malloc`.
This is still dangerous if the library stores a pointer to a garbage collected object. But nearly all standard interfaces prohibit this, because they deal correctly with pointers to stack allocated objects. (`Strtok` is an exception. Don't use it.)

In all cases we assume that pointer alignment is consistent with that enforced by the standard C compilers. If you use a nonstandard compiler you may have to adjust the alignment parameters defined in `gc_priv.h`. Note that this may also be an issue with packed records/structs, if those enforce less alignment for pointers.

A port to a machine that is not byte addressed, or does not use 32 bit or 64 bit addresses will require a major effort. A port to plain MSDOS or win16 is hard.

For machines not already mentioned, or for nonstandard compilers, some porting suggestions are provided [\[here\]](#)(`doc/porting.md`).

The C Interface to the Allocator

The following routines are intended to be directly called by the user. Note that usually only ``GC_malloc`` is necessary. ``GC_clear_roots`` and ``GC_add_roots`` calls may be required if the collector has to trace from nonstandard places (e.g. from dynamic library data areas on a machine on which the collector doesn't already understand them.) On some machines, it may be desirable to set ``GC_stacktop`` to a good approximation of the stack base. (This enhances code portability on HP PA machines, since there is no good way for the collector to compute this value.) Client code may include "gc.h", which defines all of the following, plus many others.

- 1) ``GC_malloc(nbytes)``
 - Allocate an object of size `nbytes`. Unlike `malloc`, the object is cleared before being returned to the user. ``GC_malloc`` will invoke the garbage collector when it determines this to be appropriate.

GC_malloc may return 0 if it is unable to acquire sufficient space from the operating system. This is the most probable consequence of running out of space. Other possible consequences are that a function call will fail due to lack of stack space, or that the collector will fail in other ways because it cannot maintain its internal data structures, or that a crucial system process will fail and take down the machine. Most of these possibilities are independent of the malloc implementation.

2) ``GC_malloc_atomic(nbytes)``

- Allocate an object of size `nbytes` that is guaranteed not to contain any pointers. The returned object is not guaranteed to be cleared. (Can always be replaced by ``GC_malloc``, but results in faster collection times. The collector will probably run faster if large character arrays, etc. are allocated with ``GC_malloc_atomic`` than if they are statically allocated.)

3) ``GC_realloc(object, new_size)``

- Change the size of object to be ``new_size``. Returns a pointer to the new object, which may, or may not, be the same as the pointer to the old object. The new object is taken to be atomic if and only if the old one was. If the new object is composite and larger than the original object, then the newly added bytes are cleared (we hope). This is very likely to allocate a new object, unless ``MERGE_SIZES`` is defined in `gc_priv.h`. Even then, it is likely to recycle the old object only if the object is grown in small additive increments (which, we claim, is generally bad coding practice.)

4) ``GC_free(object)``

- Explicitly deallocate an object returned by ``GC_malloc`` or ``GC_malloc_atomic``. Not necessary, but can be used to minimize collections if performance is critical. Probably a performance loss for very small objects (`<= 8 bytes`).

5) ``GC_expand_hp(bytes)``

- Explicitly increase the heap size. (This is normally done automatically if a garbage collection failed to ``GC_reclaim`` enough memory. Explicit calls to ``GC_expand_hp`` may prevent unnecessarily frequent collections at program startup.)

6) ``GC_malloc_ignore_off_page(bytes)``

- Identical to ``GC_malloc``, but the client promises to keep a pointer to the somewhere within the first 256 bytes of the object while it is live. (This pointer should normally be declared volatile to prevent interference from compiler optimizations.) This is the recommended way to allocate anything that is likely to be larger than 100 Kbytes or so. (``GC_malloc`` may result in failure to reclaim such objects.)

7) ``GC_set_warn_proc(proc)``
- Can be used to redirect warnings from the collector. Such warnings should be rare, and should not be ignored during code development.

8) ``GC_enable_incremental()``
- Enables generational and incremental collection. Useful for large heaps on machines that provide access to page dirty information. Some dirty bit implementations may interfere with debugging (by catching address faults) and place restrictions on heap arguments to system calls (since write faults inside a system call may not be handled well).

9) Several routines to allow for registration of finalization code. User supplied finalization code may be invoked when an object becomes unreachable. To call ``(*f)(obj, x)`` when obj becomes inaccessible, use ``GC_register_finalizer(obj, f, x, 0, 0);``
For more sophisticated uses, and for finalization ordering issues, see `gc.h`.

The global variable ``GC_free_space_divisor`` may be adjusted up from its default value of 3 to use less space and more collection time, or down for the opposite effect. Setting it to 1 will almost disable collections and cause all allocations to simply grow the heap.

The variable ``GC_non_gc_bytes``, which is normally 0, may be changed to reflect the amount of memory allocated by the above routines that should not be considered as a candidate for collection. Careless use may, of course, result in excessive memory consumption.

Some additional tuning is possible through the parameters defined near the top of `gc_priv.h`.

If only ``GC_malloc`` is intended to be used, it might be appropriate to define:

```
#define malloc(n) GC_malloc(n)
#define calloc(m,n) GC_malloc((m)*(n))
```

For small pieces of VERY allocation intensive code, `gc_inl.h` includes some allocation macros that may be used in place of ``GC_malloc`` and friends.

All externally visible names in the garbage collector start with ``GC_``. To avoid name conflicts, client code should avoid this prefix, except when accessing garbage collector routines or variables.

There are provisions for allocation with explicit type information. This is rarely necessary. Details can be found in `gc_typed.h`.

The C++ Interface to the Allocator

The Ellis-Hull C++ interface to the collector is included in the collector distribution. If you intend to use this, type ``make c++`` after the initial build of the collector is complete. See `gc_cpp.h` for the definition of the interface. This interface tries to approximate the Ellis-Detlefs C++ garbage collection proposal without compiler changes.

Very often it will also be necessary to use `gc_allocator.h` and the allocator declared there to construct STL data structures. Otherwise subobjects of STL data structures will be allocated using a system allocator, and objects they refer to may be prematurely collected.

Use as Leak Detector

The collector may be used to track down leaks in C programs that are intended to run with `malloc/free` (e.g. code with extreme real-time or portability constraints). To do so define ``FIND_LEAK`` in Makefile. This will cause the collector to invoke the ``report_leak`` routine defined near the top of `reclaim.c` whenever an inaccessible object is found that has not been explicitly freed. Such objects will also be automatically reclaimed.

If all objects are allocated with ``GC_DEBUG_MALLOC`` (see next section), then the default version of `report_leak` will report at least the source file and line number at which the leaked object was allocated. This may sometimes be sufficient. (On a few machines, it will also report a cryptic stack trace. If this is not symbolic, it can sometimes be called into a symbolic stack trace by invoking program "foo" with `"tools/callprocs.sh foo"`. It is a short shell script that invokes `adb` to expand program counter values to symbolic addresses. It was largely supplied by Scott Schwartz.)

Note that the debugging facilities described in the next section can sometimes be slightly LESS effective in leak finding mode, since in leak finding mode, ``GC_debug_free`` actually results in reuse of the object. (Otherwise the object is simply marked invalid.) Also note that the test program is not designed to run meaningfully in ``FIND_LEAK`` mode. Use `"make gc.a"` to build the collector.

Debugging Facilities

The routines ``GC_debug_malloc``, ``GC_debug_malloc_atomic``, ``GC_debug_realloc``, and ``GC_debug_free`` provide an alternate interface to the collector, which provides some help with memory overwrite errors, and the like.

Objects allocated in this way are annotated with additional information. Some of this information is checked during garbage collections, and detected inconsistencies are reported to stderr.

Simple cases of writing past the end of an allocated object should be caught if the object is explicitly deallocated, or if the collector is invoked while the object is live. The first deallocation of an object will clear the debugging info associated with an object, so accidentally repeated calls to ``GC_debug_free`` will report the deallocation of an object without debugging information. Out of memory errors will be reported to stderr, in addition to returning ``NULL``.

``GC_debug_malloc`` checking during garbage collection is enabled with the first call to ``GC_debug_malloc``. This will result in some slowdown during collections. If frequent heap checks are desired, this can be achieved by explicitly invoking ``GC_gcollect``, e.g. from the debugger.

``GC_debug_malloc`` allocated objects should not be passed to ``GC_realloc`` or ``GC_free``, and conversely. It is however acceptable to allocate only some objects with ``GC_debug_malloc``, and to use ``GC_malloc`` for other objects, provided the two pools are kept distinct. In this case, there is a very low probability that ``GC_malloc`` allocated objects may be misidentified as having been overwritten. This should happen with probability at most one in 2^{32} . This probability is zero if ``GC_debug_malloc`` is never called.

``GC_debug_malloc``, ``GC_malloc_atomic``, and ``GC_debug_realloc`` take two additional trailing arguments, a string and an integer. These are not interpreted by the allocator. They are stored in the object (the string is not copied). If an error involving the object is detected, they are printed.

The macros ``GC_MALLOC``, ``GC_MALLOC_ATOMIC``, ``GC_REALLOC``, ``GC_FREE``, and ``GC_REGISTER_FINALIZER`` are also provided. These require the same arguments as the corresponding (nondebugging) routines. If `gc.h` is included with ``GC_DEBUG`` defined, they call the debugging versions of these functions, passing the current file name and line number as the two extra arguments, where appropriate. If `gc.h` is included without ``GC_DEBUG`` defined, then all these macros will instead be defined to their nondebugging equivalents. (``GC_REGISTER_FINALIZER`` is necessary, since pointers to objects with debugging information are really pointers to a displacement of 16 bytes from the object beginning, and some translation is necessary when finalization routines are invoked. For details, about what's stored in the header, see the definition of the type `oh` in `dbg_mlc.c` file.)

Incremental/Generational Collection

The collector normally interrupts client code for the duration of

a garbage collection mark phase. This may be unacceptable if interactive response is needed for programs with large heaps. The collector can also run in a "generational" mode, in which it usually attempts to collect only objects allocated since the last garbage collection. Furthermore, in this mode, garbage collections run mostly incrementally, with a small amount of work performed in response to each of a large number of ``GC_malloc`` requests.

This mode is enabled by a call to ``GC_enable_incremental``.

Incremental and generational collection is effective in reducing pause times only if the collector has some way to tell which objects or pages have been recently modified. The collector uses two sources of information:

1. Information provided by the VM system. This may be provided in one of several forms. Under Solaris 2.X (and potentially under other similar systems) information on dirty pages can be read from the `/proc` file system. Under other systems (currently SunOS4.X) it is possible to write-protect the heap, and catch the resulting faults. On these systems we require that system calls writing to the heap (other than read) be handled specially by client code. See `os_dep.c` for details.
2. Information supplied by the programmer. The object is considered dirty after a call to ``GC_end_stubborn_change`` provided the library has been compiled suitably. It is typically not worth using for short-lived objects. Note that bugs caused by a missing ``GC_end_stubborn_change`` or ``GC_reachable_here`` call are likely to be observed very infrequently and hard to trace.

Bugs

Any memory that does not have a recognizable pointer to it will be reclaimed. Exclusive-or'ing forward and backward links in a list doesn't cut it.

Some C optimizers may lose the last undisguised pointer to a memory object as a consequence of clever optimizations. This has almost never been observed in practice.

This is not a real-time collector. In the standard configuration, percentage of time required for collection should be constant across heap sizes. But collection pauses will increase for larger heaps. They will decrease with the number of processors if parallel marking is enabled.

(On 2007 vintage machines, GC times may be on the order of 5 msec per MB of accessible memory that needs to be scanned and processor. Your mileage may vary.) The incremental/generational collection facility may help in some cases.

Feedback, Contribution, Questions and Notifications

Please address bug reports and new feature ideas to [GitHub issues](<https://github.com/ivmai/bdwgc/issues>). Before the submission please check that it has not been done yet by someone else.

If you want to contribute, submit a [pull request](<https://github.com/ivmai/bdwgc/pulls>) to GitHub.

If you need help, use [Stack Overflow](<https://stackoverflow.com/questions/tagged/boehm-gc>). Older technical discussions are available in `bdwgc` mailing list archive - it can be downloaded as a [compressed file](https://github.com/ivmai/bdwgc/files/1038163/bdwgc-mailing-list-archive-2017_04.tar.gz) or browsed at [Narkive](<http://bdwgc.opendylan.narkive.com>).

To get new release announcements, subscribe to [RSS feed](<https://github.com/ivmai/bdwgc/releases.atom>). (To receive the notifications by email, a 3rd-party free service like [IFTTT RSS Feed](<https://ifttt.com/feed>) can be setup.) To be notified on all issues, please [watch](<https://github.com/ivmai/bdwgc/watchers>) the project on GitHub.

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/extra/pcr_interface.c

* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/ptr_chck.c

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usage: test_cpp number-of-iterations

This program tries to test the specific C++ functionality provided by
gc_c++.h that isn't tested by the more general test routines of the
collector.

A recommended value for number-of-iterations is 10, which will take a few minutes to complete.

*****/

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* /opt/ws_local/PERMITS_SQL/1068673867_1594646488.93/0/gc-8.0.4-3.fc32.src.rpm-cosi-expand-archive-COz3oyju/gc-8.0.4.tar.gz-cosi-expand-archive-OtvjfcvN/gc-8.0.4/tests/test_cpp.cc

1.336 libxau 1.0.9-1

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1.337 libbluray 1.1.2

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1.339 vim 8.1

1.340 efibootmgr 17 1

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1.342 perl 5.30.0

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

abstract: 'Build and install Perl modules'

author:

- 'Ken Williams <kwilliams@cpan.org>'

- "Development questions, bug reports, and patches should be sent to the\nModule-Build mailing list at <module-build@perl.org>."

build_requires:

File::Temp: 0.15

Test::Harness: 3.16

Test::More: 0.49

generated_by: 'Module::Build version 0.3608'

license: gpl

meta-spec:

url: <http://module-build.sourceforge.net/META-spec-v1.4.html>

version: 1.4

name: Module-Build

resources:

MailingList: <mailto:module-build@perl.org>

license: <http://dev.perl.org/licenses/>

repository: <http://github.com/dagolden/module-build/>

version: 3

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commands you use may be called something other than `show w' and `show
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program `Gnomovision' (a program to direct compilers to make passes
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<signature of Ty Coon>, 1 April 1989
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```

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```
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```

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The End

```
#!/perl
```

```
=head1 NAME
```

```
copyright.t
```

```
=head1 DESCRIPTION
```

Tests that the latest copyright years in the top-level README file and the C<perl -v> output match each other.

If the test fails, update at least one of README and perl.c so that they match reality.

Optionally you can pass the C<--now> option to check they are at the current year. This isn't checked by default, so that it doesn't fail for people working on older releases. It should be run before making a new release.

```
=cut
```

```
use strict;
```

```
use Config;
```

```
BEGIN { require './test.pl' }
```

```
if ( $Config{usecrosscompile} ) {
```

```
    skip_all( "Not all files are available during cross-compilation" );
```

```
}
```

```
my ($opt) = @ARGV;
```

```
my $readme_year = readme_year();
```

```

my $v_year = v_year();

# Check that both copyright dates are up-to-date, but only if requested, so
# that tests still pass for people intentionally working on older versions:
if ($opt eq '--now')
{
    my $current_year = (gmtime)[5] + 1900;
    is $v_year, $current_year, 'perl -v copyright includes current year';
    is $readme_year, $current_year, 'README copyright includes current year';
}

# Otherwise simply check that the two copyright dates match each other:
else
{
    is $readme_year, $v_year, 'README and perl -v copyright dates match';
}

done_testing;

sub readme_year
# returns the latest copyright year from the top-level README file
{

    open my $readme, '<', './README' or die "Opening README failed: $!";

    # The copyright message is the first paragraph:
    local $/ = "";
    my $copyright_msg = <$readme>;

    my ($year) = $copyright_msg =~ /\b(\d{4,})/s
        or die "Year not found in README copyright message '$copyright_msg'";

    $year;
}

sub v_year
# returns the latest copyright year shown in perl -v
{

    my $output = runperl switches => ['-v'];
    my ($year) = $output =~ /copyright 1987.\b(\d{4,})/i
        or die "Copyright statement not found in perl -v output '$output'";

    $year;
}

```

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The End

1.343 libxshmfence 1.3 1

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1.344 libxext 1.3.4-1

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1.345 networkd-dispatcher 1.7.3

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1.346 xorg-xkbcomp 1.4.2 1

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1.347 libpcap 1.9.1

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1.348 cloud-google-com-go 0.38.0

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1.349 libgpg-error 1.45

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1.350 six 1.12.0-1.ph3

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The primary author and maintainer of six is Benjamin Peterson. He would like to acknowledge the following people who submitted bug reports, pull requests, and otherwise worked to improve six:

Marc Abramowitz
Alexander Artemenko
Aymeric Augustin
Ned Batchelder
Wouter Bolsterlee
Brett Cannon
Jason R. Coombs
Julien Danjou
Ben Darnell
Ben Davis
Tim Graham
Thomas Grainger
Max Grender-Jones
Joshua Harlow
Anselm Kruis
Alexander Lukanin
James Mills
Jordan Moldow
Berker Peksag
Sridhar Ratnakumar
Erik Rose
Mirko Rossini

Peter Ruibal
Miroslav Shubernetskiy
Anthony Sottile
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If you think you belong on this list, please let me know! --Benjamin

1.351 libseccomp 2.4.1

1.351.1 Available under license :

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Version 2.1, February 1999

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1.353 attr 2.5.1

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1.355 go-nats 1.7.2

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1.357 libbfio 20220823064307-1

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1.361 Im-sensors 3.6.0

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Version 2, June 1991

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Here is a list of the main contributors to lm-sensors version 3.

* Frodo Looijaard

Original author of libsensors, sensors-detect, sensors and isadump.

* Merlin Hughes

Original author of sensord.

* Bob Schlaermann

Dynamic chip feature detection (a.k.a. generic chip support) in libsensors and sensors.

* Mark M. Hoffman

Many improvements to the libsensors configuration file scanner.

* Jean Delvare

New libsensors API, and migration of sensors and sensord thereto.

Many optimizations in libsensors and sensors.

Configuration file converter.

Rewrite of sensors-detect.

Support for multiple configuration files in libsensors.

1.362 xdg-utils 1.1.3-3

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1.366 tpm2-tools 3.2.0-1

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1.369 dmidecode 3.4

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1.370 libmodplug 0.8.9.0 2

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1.371 playlyfe-go-graphql 0.0.0-20170916062755-64c119482156

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```
# All rights reserved.
```

```
# This source code is licensed under the BSD-style license found in the
```

```
Found in path(s):
```

```
* /opt/cola/permits/1578118827_1683902247.3250928/0/go-graphql-master-zip/go-graphql-master/language/parser_test.go
```

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```
# GraphQL
```

```
A powerful GraphQL server implementation for Golang. Its aim is to be the fastest GraphQL implementation.
```

```
```sh
```

```
$ cat test.go
```

```
```
```

```
```go
```

```
package main
```

```
import (
```

```
 "fmt"
```

```
 "github.com/playlyfe/go-graphql"
```

```
)
```

```
func main() {
```

```
 schema := `
```

```
 ## double hashed comments be parsed as descriptions and show up in
```



```

introspection queries
interface Pet {
 name: String
}
this is an internal comment
type Dog implements Pet {
 name: String
 woofs: Boolean
}
type Cat implements Pet {
 name: String
 meows: Boolean
}
type QueryRoot {
 pets: [Pet]
}
`

resolvers := map[string]interface{ }{}
resolvers["QueryRoot/pets"] = func(params *graphql.ResolveParams) (interface{ }, error) {
 return []map[string]interface{ }{
 {
 "__typename": "Dog",
 "name": "Odie",
 "woofs": true,
 },
 {
 "__typename": "Cat",
 "name": "Garfield",
 "meows": false,
 },
 }, nil
}
context := map[string]interface{ }{}
variables := map[string]interface{ }{}
executor, err := graphql.NewExecutor(schema, "QueryRoot", "", resolvers)
executor.ResolveType = func(value interface{ }) string {
 if object, ok := value.(map[string]interface{ }); ok {
 return object["__typename"].(string)
 }
 return ""
}
query := `{
 pets {
 name
 ... on Dog {
 woofs
 }
 ... on Cat {

```

```

 meows
 }
}
}`
result, err := executor.Execute(context, query, variables, "")
if err != nil {
 panic(err)
}
fmt.Printf("%v", result)
}
...

Benchmarks
...

Name Repetitions
BenchmarkGoGraphQLMaster-4 10000 230846 ns/op 29209 B/op 543 allocs/op
BenchmarkPlaylyfeGraphQLMaster-4 50000 27647 ns/op 3269 B/op 61 allocs/op
...

More
graphql-js master
...

wrk -t12 -c400 -d30s --timeout 10s "http://localhost:3002/graphql?query={hello}"
Running 30s test @ http://localhost:3002/graphql?query={hello}
12 threads and 400 connections
Thread Stats Avg Stdev Max +/- Stdev
 Latency 219.79ms 80.35ms 613.69ms 78.38%
 Req/Sec 149.99 96.37 494.00 58.29%
52157 requests in 30.05s, 9.96MB read
Requests/sec: 1735.60
Transfer/sec: 339.33KB

...

graphql-go master
...

wrk -t12 -c400 -d30s --timeout 10s "http://localhost:3003/graphql?query={hello}"
Running 30s test @ http://localhost:3003/graphql?query={hello}
12 threads and 400 connections
Thread Stats Avg Stdev Max +/- Stdev
 Latency 134.97ms 163.47ms 1.85s 86.12%
 Req/Sec 372.46 236.09 1.58k 70.99%
133607 requests in 30.05s, 18.35MB read
Requests/sec: 4445.99
Transfer/sec: 625.22KB

...

playlyfe/go-graphql master
...

```

```
wrk -t12 -c400 -d30s --timeout 10s "http://localhost:3003/graphql?query={hello}"
Running 30s test @ http://localhost:3003/graphql?query={hello}
12 threads and 400 connections
Thread Stats Avg Stdev Max +/- Stdev
 Latency 34.89ms 43.72ms 518.00ms 87.58%
 Req/Sec 1.44k 0.90k 6.10k 81.35%
514095 requests in 30.05s, 70.60MB read
Requests/sec: 17108.13
Transfer/sec: 2.35MB
^^^
```

```
TODO
Validator
```

```
License
```

```
=====
```

```
Playlyfe GraphQL
```

```
http://dev.playlyfe.com/
```

```
Copyright(c) 2015-2016, Playlyfe IT Solutions Pvt. Ltd, support@playlyfe.com
```

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```
Found in path(s):
```

```
* /opt/cola/permits/1578118827_1683902247.3250928/0/go-graphql-master-zip/go-graphql-master/README.md
```

## 1.372 netcat 0.7.1

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## 1.373 giflib 5.2.1-1

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## 1.375 libevent 2.1.12

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Found in path(s):

```
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/util.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/makepkg
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/arch.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_package/dotfiles.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/source/file.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/changelog.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/util/message.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/depends.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/pkgbase.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/checkdepends.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/util/error.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/util/pkgbuild.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/source/bzr.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/makepkg-
template
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/provides.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/integrity/generate_checksum.sh
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-
xz/usr/share/makepkg/lint_pkgbuild/variable.sh
```



\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/source/local.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_package/file\_names.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/purge.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/package\_function.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/zipman.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/pacman-db-upgrade

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_package/build\_references.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/pkgname.sh

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\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/repo-add

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\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_config/paths.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/strip.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/libtool.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/pkgdelta

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/backup.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/makedepends.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/source/git.sh

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\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/staticlibs.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/source/hg.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/source.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/epoch.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/srcinfo.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/pkglist.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/emptydirs.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/util/parseopts.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/integrity/verify\_checksum.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/source.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/pkgrel.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/integrity/verify\_signature.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/conflicts.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/util.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_package/missing\_backup.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/util/util.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/pkgver.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/util/option.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_config.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/install.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/pacman-key

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/integrity/generate\_signature.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/tidy/docs.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/util/compress.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/lint\_pkgbuild/optdepends.sh

\* /opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/makepkg/util/source.sh

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```
/*
 * alpm_list.h
 *
 * Copyright (c) 2006-2018 Pacman Development Team <pacman-dev@archlinux.org>
 * Copyright (c) 2002-2006 by Judd Vinet <jvinet@zeroflux.org>
 *
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 *
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 */
```

Found in path(s):

```
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/include/alpm_list.h
```

No license file was found, but licenses were detected in source scan.

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/bin/pacman: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ar/LC\_MESSAGES/pacman.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ast/LC\_MESSAGES/pacman.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/bg/LC\_MESSAGES/pacman-scripts.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/bg/LC\_MESSAGES/pacman.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/br/LC\_MESSAGES/pacman-scripts.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/br/LC\_MESSAGES/pacman.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ca/LC\_MESSAGES/pacman-scripts.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ca/LC\_MESSAGES/pacman.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/cs/LC\_MESSAGES/pacman-scripts.mo: binary file matches

/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/cs/LC\_MESSAGES/pacman.mo: binary file matches





/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ro/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ro/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ru/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/ru/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sk/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sk/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sl/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sr/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sr/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sr@latin/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sr@latin/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sv/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/sv/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/tr/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/tr/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/uk/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/uk/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/zh\_CN/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/zh\_CN/LC\_MESSAGES/pacman.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/zh\_TW/LC\_MESSAGES/pacman-scripts.mo: binary file matches  
/opt/cola/permits/1665656307\_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/locale/zh\_TW/LC\_MESSAGES/pacman.mo: binary file matches

Found in path(s):

\* /bin/grep

No license file was found, but licenses were detected in source scan.

/\*

```

* alpm.h
*
* Copyright (c) 2006-2018 Pacman Development Team <pacman-dev@archlinux.org>
* Copyright (c) 2002-2006 by Judd Vinet <jvinet@zeroflux.org>
* Copyright (c) 2005 by Aurelien Foret <orelien@chez.com>
* Copyright (c) 2005 by Christian Hamar <krics@linuxforum.hu>
* Copyright (c) 2005, 2006 by Miklos Vajna <vmiklos@frugalware.org>
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*
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*/

```

Found in path(s):

```
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/include/alpm.h
```

No license file was found, but licenses were detected in source scan.

```
This file is in the public domain.
```

```

_arch_compgen() {
 local i r
 COMPREPLY=($(compgen -W "$*" -- "$cur"))
 for ((i=1; i < ${#COMP_WORDS[@]}-1; i++)); do
 for r in ${!COMPREPLY[@]}; do
 if [[${COMP_WORDS[i]} = ${COMPREPLY[r]}]]; then
 unset 'COMPREPLY[r]'; break
 fi
 done
 done
}

```

```

_arch_ptr2comp() {
 local list= x y
 for x; do
 for y in '0 --' '1 -'; do
 eval 'set -- ${x}[$y% *]}'
 list+=\ ${@/#/${y#* } }
 done
 done
}

```

```

_arch_compgen $list
}

_arch_incomp() {
local r="\s(-${1#* }s\w*${1% *})*"; [[$COMP_LINE =~ $r]]
}

_pacman_keyids() {
\pacman-key --list-keys 2>/dev/null | awk '
$1 == "pub" {
key id
split($2, a, "/"); print a[2]
}
$1 == "uid" {
email
if (match($NF, /<[^>]+>/))
print substr($NF, RSTART + 1, RLENGTH - 2)
}'
}

_pacman_key() {
local o cur opts prev wantfiles
COMPREPLY=()
_get_comp_words_by_ref cur prev
opts=('add config delete edit-key export finger gpgdir
help import import-trustdb init keyserver list-keys list-sigs
lsign-key nocolor populate recv-keys refresh-keys updatedb
verify version'
'a d e f h l r u v V')

operations for which we want to complete keyids
for o in 'd delete' 'e export' 'f finger' 'l list-keys' 'r recv-keys' \
'edit-key' 'list-sigs' 'lsign-key' 'refresh-keys'; do
_arch_incomp "$o" && break
unset o
done

options for which we want file completion
wantfiles='-(c|-config|g|-gpgdir)'

if [[$prev = 'pacman-key' || ($cur = -* && $prev != $wantfiles)]]; then
_arch_ptr2comp opts
elif [[$prev = @(-k|--keyserver)]]; then
return
elif [[$prev != $wantfiles && $o]]; then
COMPREPLY=$(compgen -W '($_pacman_keyids)' -- "$cur")
fi
true

```



```

}

_makepkg() {
local cur opts prev
COMPREPLY=()
_get_comp_words_by_ref cur prev
if [[$cur = -* && ! $prev =~ ^(-(config|help|key|version)$|\w*[Vhp])]]; then
opts=('allsource asdeps check clean cleanbuild config force geninteg help
holdver ignorearch install key log needed noarchive nobuild nocheck
nocolor noconfirm nodeps noextract noprepere nopprogressbar nosign
packagelist printsrcinfo repackagemddeps sign skipchecksums
skipinteg skipgpcheck source syncdeps verifysource version'
'A C L R S c d e f g h i m o p r s')
_arch_ptr2comp opts
fi
true
}

_pacman_pkg() {
_arch_compgen "$(
if [[$2]]; then
\pacman -$1 2>/dev/null | \cut -d' ' -f1 | \sort -u
else
\pacman -$1 2>/dev/null
fi
)"
}

_pacman_repo_list() {
_arch_compgen "$(pacman-conf --repo-list)"
}

_pacman() {
local common core cur database files prev query remove sync upgrade o
COMPREPLY=()
_get_comp_words_by_ref cur prev
database=('asdeps asexplicit')
files=('list machinereadable owns search refresh regex' 'l o s x y')
query=('changelog check deps explicit file foreign groups info list native owns
search unrequired upgrades' 'c e g i k l m n o p s t u')
remove=('cascade dbonly nodeps assume-installed nosave print recursive unneeded' 'c n p s u')
sync=('asdeps asexplicit clean dbonly downloadonly force groups ignore ignoregroup
info list needed nodeps assume-installed print refresh recursive search sysupgrade'
'c g i l p s u w y')
upgrade=('asdeps asexplicit force needed nodeps assume-installed print recursive' 'p')
common=('arch cachedir color config confirm dbpath debug gpgdir help hookdir logfile
noconfirm nopprogressbar noscriptlet quiet root verbose' 'b d h q r v')
core=('database files help query remove sync upgrade version' 'D F Q R S U V h')

```

```

for o in 'D database' 'F files' 'Q query' 'R remove' 'S sync' 'U upgrade'; do
 _arch_incomp "$o" && break
done

if [[$? != 0]]; then
 _arch_ptr2comp core
elif [[! $prev =~ ^-\w*[Vbhr] &&
 ! $prev = --@(cachedir|color|config|dbpath|help|hookdir|gpgdir|logfile|root|version)]]
then
 [[$cur = -*]] && _arch_ptr2comp ${o##* } common ||
 case ${o% *} in
 D|R)
 _pacman_pkg Qq;;
 F)
 _arch_incomp 'l list' && _pacman_pkg Slq;
 ;;
 Q)
 { _arch_incomp 'g groups' && _pacman_pkg Qg sort; } ||
 { _arch_incomp 'p file' && _pacman_file; } ||
 _arch_incomp 'o owns' || _arch_incomp 'u upgrades' ||
 _pacman_pkg Qq;;
 S)
 { _arch_incomp 'g groups' && _pacman_pkg Sg; } ||
 { _arch_incomp 'l list' && _pacman_repo_list; } ||
 _pacman_pkg Slq;;
 U)
 _pacman_file;;
 esac
fi
true
}

_pacman_file() {
 compopt -o filenames; _filedir 'pkg.tar*'
}

complete -F _pacman -o default pacman
complete -F _makepkg -o default makepkg
complete -F _pacman_key -o default pacman-key

ex:et ts=2 sw=2 ft=sh

Found in path(s):
* /opt/cola/permits/1665656307_1683901872.0384014/0/pacman-5-1-3-1-x86-64-pkg-tar-xz/usr/share/bash-
completion/completions/pacman

```

# 1.377 zstd 1.4.2-1

## 1.377.1 Available under license :

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Version 2, June 1991

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## 1.378 golang 1.12.2

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Individual's name <submission email address> <email2> <emailN>
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#  
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## 1.379 libtool 2.4.6+42+gb88cebd5-5

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Maciej Bliziski  
Mario Sparada  
Mathias Goldau  
Richard Jensen  
Rob Holland  
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wood4321 (of code.google.com)

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## 1.385 libxfixes 5.0.3 2

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xz/usr/include/cairo/cairo-pdf.h  
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\* /opt/cola/permits/1662823442\_1683824501.415044/0/cairo-1-17-2-17-g52a7c79fd-1-x86-64-pkg-tar-xz/usr/include/cairo/cairo-svg.h

# 1.387 openjdk-jre 11.0.4u11

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## 1.393 libcbor 0.9.0

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## 1.394 libsoxr 0.1.3 1

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## 1.396 wal-g 0.2.11

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# 1.397 go-xmlrpc 0.0.3

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- Chris McDonough, 2011/02/16

- Wichert Akkerman, 2012/02/02

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <http://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <http://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see <http://www.zope.com>). In 2001, the Python Software Foundation (PSF, see <http://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

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0.9.0 thru 1.2		1991-1995	CWI	yes

1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
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2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
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2.4.3	2.4.2	2006	PSF	yes
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2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
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# 1.407 passlib 1.7.1

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Special thanks to Darin Gordon for testing and feedback on the :mod:`passlib.totp` module.

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Passlib contains some code derived from the following sources:

MD5-Crypt

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The source file ``passlib/handlers/md5\_crypt.py`` contains code derived from the original `FreeBSD md5-crypt implementation

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converted to python May 2008

by Eli Collins

DES

---

The source file ``passlib/crypto/des.py`` contains code derived from

`UnixCrypt.java` <<http://www.dynamic.net.au/christos/crypt/UnixCrypt2.txt>>`, a pure-java implementation of the historic unix-crypt password hash algorithm.

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UnixCrypt.java 0.9 96/11/25



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modified April 2001  
by Iris Van den Broeke, Daniel Deville

modified Aug 2005  
by Greg Wilkins (gregw)

converted to python Jun 2009  
by Eli Collins

jBCrypt

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The source file ``passlib/crypto/\_blowfish/base.py`` contains code derived  
from `jBCrypt 0.2 <<http://www.mindrot.org/projects/jBCrypt/>>`, a Java  
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## 1.408 json-c 0.13.1

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# 1.409 pyparsing 2.4.2

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# 1.410 keyutils 1.6.1

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```

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```
Gnomovision version 69, Copyright (C) 19yy name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

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```
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'Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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## 1.411 sqlite 3.39.4

### 1.411.1 Available under license :

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```
/* This will be more informative in a later version. */
```

Found in path(s):

```
* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/shell.c
```

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```
/*
```

```
** CAPI3REF: Configuration Options
```

```
** KEYWORDS: {configuration option}
```

```
**
```

```
** These constants are the available integer configuration options that
** can be passed as the first argument to the [sqlite3_config()] interface.
```

```
**
```

```
** New configuration options may be added in future releases of SQLite.
** Existing configuration options might be discontinued. Applications
** should check the return code from [sqlite3_config()] to make sure that
** the call worked. The [sqlite3_config()] interface will return a
** non-zero [error code] if a discontinued or unsupported configuration option
** is invoked.
```

```
**
```

```
** <dl>
```

```
** [[SQLITE_CONFIG_SINGLETHREAD]] <dt>SQLITE_CONFIG_SINGLETHREAD</dt>
```

```
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Single-thread. In other words, it disables
** all mutexing and puts SQLite into a mode where it can only be used
** by a single thread. ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to change the [threading mode] from its default
** value of Single-thread and so [sqlite3_config()] will return
** [SQLITE_ERROR] if called with the SQLITE_CONFIG_SINGLETHREAD
** configuration option.</dd>
```

```
**
```

```
** [[SQLITE_CONFIG_MULTITHREAD]] <dt>SQLITE_CONFIG_MULTITHREAD</dt>
```

```
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Multi-thread. In other words, it disables
** mutexing on [database connection] and [prepared statement] objects.
```

\*\* The application is responsible for serializing access to  
 \*\* [database connections] and [prepared statements]. But other mutexes  
 \*\* are enabled so that SQLite will be safe to use in a multi-threaded  
 \*\* environment as long as no two threads attempt to use the same  
 \*\* [database connection] at the same time. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* it is not possible to set the Multi-thread [threading mode] and  
 \*\* [sqlite3\_config()] will return [SQLITE\_ERROR] if called with the  
 \*\* SQLITE\_CONFIG\_MULTITHREAD configuration option.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_SERIALIZED]] <dt>SQLITE\_CONFIG\_SERIALIZED</dt>  
 \*\* <dd>There are no arguments to this option. ^This option sets the  
 \*\* [threading mode] to Serialized. In other words, this option enables  
 \*\* all mutexes including the recursive  
 \*\* mutexes on [database connection] and [prepared statement] objects.  
 \*\* In this mode (which is the default when SQLite is compiled with  
 \*\* [SQLITE\_THREADSAFE=1]) the SQLite library will itself serialize access  
 \*\* to [database connections] and [prepared statements] so that the  
 \*\* application is free to use the same [database connection] or the  
 \*\* same [prepared statement] in different threads at the same time.  
 \*\* ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* it is not possible to set the Serialized [threading mode] and  
 \*\* [sqlite3\_config()] will return [SQLITE\_ERROR] if called with the  
 \*\* SQLITE\_CONFIG\_SERIALIZED configuration option.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_MALLOC]] <dt>SQLITE\_CONFIG\_MALLOC</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_MALLOC option takes a single argument which is  
 \*\* a pointer to an instance of the [sqlite3\_mem\_methods] structure.  
 \*\* The argument specifies  
 \*\* alternative low-level memory allocation routines to be used in place of  
 \*\* the memory allocation routines built into SQLite.)^ ^SQLite makes  
 \*\* its own private copy of the content of the [sqlite3\_mem\_methods] structure  
 \*\* before the [sqlite3\_config()] call returns.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_GETMALLOC]] <dt>SQLITE\_CONFIG\_GETMALLOC</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_GETMALLOC option takes a single argument which  
 \*\* is a pointer to an instance of the [sqlite3\_mem\_methods] structure.  
 \*\* The [sqlite3\_mem\_methods]  
 \*\* structure is filled with the currently defined memory allocation routines.)^  
 \*\* This option can be used to overload the default memory allocation  
 \*\* routines with a wrapper that simulations memory allocation failure or  
 \*\* tracks memory usage, for example. </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_SMALL\_MALLOC]] <dt>SQLITE\_CONFIG\_SMALL\_MALLOC</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_SMALL\_MALLOC option takes single argument of  
 \*\* type int, interpreted as a boolean, which if true provides a hint to  
 \*\* SQLite that it should avoid large memory allocations if possible.

\*\* SQLite will run faster if it is free to make large memory allocations,  
 \*\* but some application might prefer to run slower in exchange for  
 \*\* guarantees about memory fragmentation that are possible if large  
 \*\* allocations are avoided. This hint is normally off.  
 \*\* </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_MEMSTATUS]] <dt>SQLITE\_CONFIG\_MEMSTATUS</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_MEMSTATUS option takes single argument of type int,  
 \*\* interpreted as a boolean, which enables or disables the collection of  
 \*\* memory allocation statistics. ^(When memory allocation statistics are  
 \*\* disabled, the following SQLite interfaces become non-operational:  
 \*\* <ul>  
 \*\* <li> [sqlite3\_hard\_heap\_limit64()]  
 \*\* <li> [sqlite3\_memory\_used()]  
 \*\* <li> [sqlite3\_memory\_highwater()]  
 \*\* <li> [sqlite3\_soft\_heap\_limit64()]  
 \*\* <li> [sqlite3\_status64()]  
 \*\* </ul>)^  
 \*\* ^Memory allocation statistics are enabled by default unless SQLite is  
 \*\* compiled with [SQLITE\_DEFAULT\_MEMSTATUS]=0 in which case memory  
 \*\* allocation statistics are disabled by default.  
 \*\* </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_SCRATCH]] <dt>SQLITE\_CONFIG\_SCRATCH</dt>  
 \*\* <dd> The SQLITE\_CONFIG\_SCRATCH option is no longer used.  
 \*\* </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_PAGECACHE]] <dt>SQLITE\_CONFIG\_PAGECACHE</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_PAGECACHE option specifies a memory pool  
 \*\* that SQLite can use for the database page cache with the default page  
 \*\* cache implementation.  
 \*\* This configuration option is a no-op if an application-defined page  
 \*\* cache implementation is loaded using the [SQLITE\_CONFIG\_PCACHE2].  
 \*\* ^There are three arguments to SQLITE\_CONFIG\_PAGECACHE: A pointer to  
 \*\* 8-byte aligned memory (pMem), the size of each page cache line (sz),  
 \*\* and the number of cache lines (N).  
 \*\* The sz argument should be the size of the largest database page  
 \*\* (a power of two between 512 and 65536) plus some extra bytes for each  
 \*\* page header. ^The number of extra bytes needed by the page header  
 \*\* can be determined using [SQLITE\_CONFIG\_PCACHE\_HDRSZ].  
 \*\* ^It is harmless, apart from the wasted memory,  
 \*\* for the sz parameter to be larger than necessary. The pMem  
 \*\* argument must be either a NULL pointer or a pointer to an 8-byte  
 \*\* aligned block of memory of at least sz\*N bytes, otherwise  
 \*\* subsequent behavior is undefined.  
 \*\* ^When pMem is not NULL, SQLite will strive to use the memory provided  
 \*\* to satisfy page cache needs, falling back to [sqlite3\_malloc()] if  
 \*\* a page cache line is larger than sz bytes or if all of the pMem buffer

\*\* is exhausted.

\*\* ^If pMem is NULL and N is non-zero, then each database connection  
 \*\* does an initial bulk allocation for page cache memory  
 \*\* from [sqlite3\_malloc()] sufficient for N cache lines if N is positive or  
 \*\* of -1024\*N bytes if N is negative. . ^If additional  
 \*\* page cache memory is needed beyond what is provided by the initial  
 \*\* allocation, then SQLite goes to [sqlite3\_malloc()] separately for each  
 \*\* additional cache line. </dd>

\*\*

\*\* [[SQLITE\_CONFIG\_HEAP]] <dt>SQLITE\_CONFIG\_HEAP</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_HEAP option specifies a static memory buffer  
 \*\* that SQLite will use for all of its dynamic memory allocation needs  
 \*\* beyond those provided for by [SQLITE\_CONFIG\_PAGECACHE].  
 \*\* ^The SQLITE\_CONFIG\_HEAP option is only available if SQLite is compiled  
 \*\* with either [SQLITE\_ENABLE\_MEMSYS3] or [SQLITE\_ENABLE\_MEMSYS5] and returns  
 \*\* [SQLITE\_ERROR] if invoked otherwise.  
 \*\* ^There are three arguments to SQLITE\_CONFIG\_HEAP:  
 \*\* An 8-byte aligned pointer to the memory,  
 \*\* the number of bytes in the memory buffer, and the minimum allocation size.  
 \*\* ^If the first pointer (the memory pointer) is NULL, then SQLite reverts  
 \*\* to using its default memory allocator (the system malloc() implementation),  
 \*\* undoing any prior invocation of [SQLITE\_CONFIG\_MALLOC]. ^If the  
 \*\* memory pointer is not NULL then the alternative memory  
 \*\* allocator is engaged to handle all of SQLites memory allocation needs.  
 \*\* The first pointer (the memory pointer) must be aligned to an 8-byte  
 \*\* boundary or subsequent behavior of SQLite will be undefined.  
 \*\* The minimum allocation size is capped at 2\*\*12. Reasonable values  
 \*\* for the minimum allocation size are 2\*\*5 through 2\*\*8.</dd>

\*\*

\*\* [[SQLITE\_CONFIG\_MUTEX]] <dt>SQLITE\_CONFIG\_MUTEX</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_MUTEX option takes a single argument which is a  
 \*\* pointer to an instance of the [sqlite3\_mutex\_methods] structure.  
 \*\* The argument specifies alternative low-level mutex routines to be used  
 \*\* in place the mutex routines built into SQLite.)^ ^SQLite makes a copy of  
 \*\* the content of the [sqlite3\_mutex\_methods] structure before the call to  
 \*\* [sqlite3\_config()] returns. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* the entire mutexing subsystem is omitted from the build and hence calls to  
 \*\* [sqlite3\_config()] with the SQLITE\_CONFIG\_MUTEX configuration option will  
 \*\* return [SQLITE\_ERROR].</dd>

\*\*

\*\* [[SQLITE\_CONFIG\_GETMUTEX]] <dt>SQLITE\_CONFIG\_GETMUTEX</dt>  
 \*\* <dd> ^The SQLITE\_CONFIG\_GETMUTEX option takes a single argument which  
 \*\* is a pointer to an instance of the [sqlite3\_mutex\_methods] structure. The  
 \*\* [sqlite3\_mutex\_methods]  
 \*\* structure is filled with the currently defined mutex routines.)^  
 \*\* This option can be used to overload the default mutex allocation  
 \*\* routines with a wrapper used to track mutex usage for performance



\*\* profiling or testing, for example. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* the entire mutexing subsystem is omitted from the build and hence calls to  
 \*\* [sqlite3\_config()] with the SQLITE\_CONFIG\_GETMUTEX configuration option will  
 \*\* return [SQLITE\_ERROR].</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_LOOKASIDE]] <dt>SQLITE\_CONFIG\_LOOKASIDE</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_LOOKASIDE option takes two arguments that determine  
 \*\* the default size of lookaside memory on each [database connection].  
 \*\* The first argument is the  
 \*\* size of each lookaside buffer slot and the second is the number of  
 \*\* slots allocated to each database connection.)^ ^(SQLITE\_CONFIG\_LOOKASIDE  
 \*\* sets the <i>default</i> lookaside size. The [SQLITE\_DBCONFIG\_LOOKASIDE]  
 \*\* option to [sqlite3\_db\_config()] can be used to change the lookaside  
 \*\* configuration on individual connections.)^ </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_PCACHE2]] <dt>SQLITE\_CONFIG\_PCACHE2</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_PCACHE2 option takes a single argument which is  
 \*\* a pointer to an [sqlite3\_pcache\_methods2] object. This object specifies  
 \*\* the interface to a custom page cache implementation.)^  
 \*\* ^SQLite makes a copy of the [sqlite3\_pcache\_methods2] object.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_GETPCACHE2]] <dt>SQLITE\_CONFIG\_GETPCACHE2</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_GETPCACHE2 option takes a single argument which  
 \*\* is a pointer to an [sqlite3\_pcache\_methods2] object. SQLite copies of  
 \*\* the current page cache implementation into that object.)^ </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_LOG]] <dt>SQLITE\_CONFIG\_LOG</dt>  
 \*\* <dd> The SQLITE\_CONFIG\_LOG option is used to configure the SQLite  
 \*\* global [error log].  
 \*\* (^The SQLITE\_CONFIG\_LOG option takes two arguments: a pointer to a  
 \*\* function with a call signature of void(\*)(void\*,int,const char\*),  
 \*\* and a pointer to void. ^If the function pointer is not NULL, it is  
 \*\* invoked by [sqlite3\_log()] to process each logging event. ^If the  
 \*\* function pointer is NULL, the [sqlite3\_log()] interface becomes a no-op.  
 \*\* ^The void pointer that is the second argument to SQLITE\_CONFIG\_LOG is  
 \*\* passed through as the first parameter to the application-defined logger  
 \*\* function whenever that function is invoked. ^The second parameter to  
 \*\* the logger function is a copy of the first parameter to the corresponding  
 \*\* [sqlite3\_log()] call and is intended to be a [result code] or an  
 \*\* [extended result code]. ^The third parameter passed to the logger is  
 \*\* log message after formatting via [sqlite3\_snprintf()].  
 \*\* The SQLite logging interface is not reentrant; the logger function  
 \*\* supplied by the application must not invoke any SQLite interface.  
 \*\* In a multi-threaded application, the application-defined logger  
 \*\* function must be threadsafe. </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_URI]] <dt>SQLITE\_CONFIG\_URI

\*\* <dd>^(The SQLITE\_CONFIG\_URI option takes a single argument of type int.  
 \*\* If non-zero, then URI handling is globally enabled. If the parameter is zero,  
 \*\* then URI handling is globally disabled.)^ ^If URI handling is globally  
 \*\* enabled, all filenames passed to [sqlite3\_open()], [sqlite3\_open\_v2()],  
 \*\* [sqlite3\_open16()] or  
 \*\* specified as part of [ATTACH] commands are interpreted as URIs, regardless  
 \*\* of whether or not the [SQLITE\_OPEN\_URI] flag is set when the database  
 \*\* connection is opened. ^If it is globally disabled, filenames are  
 \*\* only interpreted as URIs if the SQLITE\_OPEN\_URI flag is set when the  
 \*\* database connection is opened. ^By default, URI handling is globally  
 \*\* disabled. The default value may be changed by compiling with the  
 \*\* [SQLITE\_USE\_URI] symbol defined.)^  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN]] <dt>SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN  
 \*\* <dd>^The SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN option takes a single integer  
 \*\* argument which is interpreted as a boolean in order to enable or disable  
 \*\* the use of covering indices for full table scans in the query optimizer.  
 \*\* ^The default setting is determined  
 \*\* by the [SQLITE\_ALLOW\_COVERING\_INDEX\_SCAN] compile-time option, or is "on"  
 \*\* if that compile-time option is omitted.  
 \*\* The ability to disable the use of covering indices for full table scans  
 \*\* is because some incorrectly coded legacy applications might malfunction  
 \*\* when the optimization is enabled. Providing the ability to  
 \*\* disable the optimization allows the older, buggy application code to work  
 \*\* without change even with newer versions of SQLite.  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_PCACHE]] [[SQLITE\_CONFIG\_GETPCACHE]]  
 \*\* <dt>SQLITE\_CONFIG\_PCACHE and SQLITE\_CONFIG\_GETPCACHE  
 \*\* <dd> These options are obsolete and should not be used by new code.  
 \*\* They are retained for backwards compatibility but are now no-ops.  
 \*\* </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_SQLLOG]]  
 \*\* <dt>SQLITE\_CONFIG\_SQLLOG  
 \*\* <dd>This option is only available if sqlite is compiled with the  
 \*\* [SQLITE\_ENABLE\_SQLLOG] pre-processor macro defined. The first argument should  
 \*\* be a pointer to a function of type void(\*)(void\*,sqlite3\*,const char\*, int).  
 \*\* The second should be of type (void\*). The callback is invoked by the library  
 \*\* in three separate circumstances, identified by the value passed as the  
 \*\* fourth parameter. If the fourth parameter is 0, then the database connection  
 \*\* passed as the second argument has just been opened. The third argument  
 \*\* points to a buffer containing the name of the main database file. If the  
 \*\* fourth parameter is 1, then the SQL statement that the third parameter  
 \*\* points to has just been executed. Or, if the fourth parameter is 2, then  
 \*\* the connection being passed as the second parameter is being closed. The  
 \*\* third parameter is passed NULL in this case. An example of using this  
 \*\* configuration option can be seen in the "test\_sqllog.c" source file in  
 \*\* the canonical SQLite source tree.</dd>

\*\*

\*\* `[[SQLITE_CONFIG_MMAP_SIZE]]`

\*\* `<dt>SQLITE_CONFIG_MMAP_SIZE`

\*\* `<dd>`^SQLITE\_CONFIG\_MMAP\_SIZE takes two 64-bit integer (sqlite3\_int64) values

\*\* that are the default mmap size limit (the default setting for

\*\* `[PRAGMA mmap_size]`) and the maximum allowed mmap size limit.

\*\* ^The default setting can be overridden by each database connection using

\*\* either the `[PRAGMA mmap_size]` command, or by using the

\*\* `[SQLITE_FCNTL_MMAP_SIZE]` file control. ^The maximum allowed mmap size

\*\* will be silently truncated if necessary so that it does not exceed the

\*\* compile-time maximum mmap size set by the

\*\* `[SQLITE_MAX_MMAP_SIZE]` compile-time option.)^

\*\* ^If either argument to this option is negative, then that argument is

\*\* changed to its compile-time default.

\*\*

\*\* `[[SQLITE_CONFIG_WIN32_HEAPSIZE]]`

\*\* `<dt>SQLITE_CONFIG_WIN32_HEAPSIZE`

\*\* `<dd>`^The SQLITE\_CONFIG\_WIN32\_HEAPSIZE option is only available if SQLite is

\*\* compiled for Windows with the `[SQLITE_WIN32_MALLOC]` pre-processor macro

\*\* defined. ^SQLITE\_CONFIG\_WIN32\_HEAPSIZE takes a 32-bit unsigned integer value

\*\* that specifies the maximum size of the created heap.

\*\*

\*\* `[[SQLITE_CONFIG_PCACHE_HDRSZ]]`

\*\* `<dt>SQLITE_CONFIG_PCACHE_HDRSZ`

\*\* `<dd>`^The SQLITE\_CONFIG\_PCACHE\_HDRSZ option takes a single parameter which

\*\* is a pointer to an integer and writes into that integer the number of extra

\*\* bytes per page required for each page in `[SQLITE_CONFIG_PAGECACHE]`.

\*\* The amount of extra space required can change depending on the compiler,

\*\* target platform, and SQLite version.

\*\*

\*\* `[[SQLITE_CONFIG_PMASZ]]`

\*\* `<dt>SQLITE_CONFIG_PMASZ`

\*\* `<dd>`^The SQLITE\_CONFIG\_PMASZ option takes a single parameter which

\*\* is an unsigned integer and sets the "Minimum PMA Size" for the multithreaded

\*\* sorter to that integer. The default minimum PMA Size is set by the

\*\* `[SQLITE_SORTER_PMASZ]` compile-time option. New threads are launched

\*\* to help with sort operations when multithreaded sorting

\*\* is enabled (using the `[PRAGMA threads]` command) and the amount of content

\*\* to be sorted exceeds the page size times the minimum of the

\*\* `[PRAGMA cache_size]` setting and this value.

\*\*

\*\* `[[SQLITE_CONFIG_STMTJRNL_SPILL]]`

\*\* `<dt>SQLITE_CONFIG_STMTJRNL_SPILL`

\*\* `<dd>`^The SQLITE\_CONFIG\_STMTJRNL\_SPILL option takes a single parameter which

\*\* becomes the [statement journal] spill-to-disk threshold.

\*\* [Statement journals] are held in memory until their size (in bytes)

\*\* exceeds this threshold, at which point they are written to disk.

\*\* Or if the threshold is -1, statement journals are always held

```

** exclusively in memory.
** Since many statement journals never become large, setting the spill
** threshold to a value such as 64KiB can greatly reduce the amount of
** I/O required to support statement rollback.
** The default value for this setting is controlled by the
** [SQLITE_STMTJRNL_SPILL] compile-time option.
**
** [[SQLITE_CONFIG_SORTERREF_SIZE]]
** <dt>SQLITE_CONFIG_SORTERREF_SIZE
** <dd>The SQLITE_CONFIG_SORTERREF_SIZE option accepts a single parameter
** of type (int) - the new value of the sorter-reference size threshold.
** Usually, when SQLite uses an external sort to order records according
** to an ORDER BY clause, all fields required by the caller are present in the
** sorted records. However, if SQLite determines based on the declared type
** of a table column that its values are likely to be very large - larger
** than the configured sorter-reference size threshold - then a reference
** is stored in each sorted record and the required column values loaded
** from the database as records are returned in sorted order. The default
** value for this option is to never use this optimization. Specifying a
** negative value for this option restores the default behaviour.
** This option is only available if SQLite is compiled with the
** [SQLITE_ENABLE_SORTER_REFERENCES] compile-time option.
**
** [[SQLITE_CONFIG_MEMDB_MAXSIZE]]
** <dt>SQLITE_CONFIG_MEMDB_MAXSIZE
** <dd>The SQLITE_CONFIG_MEMDB_MAXSIZE option accepts a single parameter
** [sqlite3_int64] parameter which is the default maximum size for an in-memory
** database created using [sqlite3_deserialize()]. This default maximum
** size can be adjusted up or down for individual databases using the
** [SQLITE_FCNTL_SIZE_LIMIT] [sqlite3_file_control|file-control]. If this
** configuration setting is never used, then the default maximum is determined
** by the [SQLITE_MEMDB_DEFAULT_MAXSIZE] compile-time option. If that
** compile-time option is not set, then the default maximum is 1073741824.
** </dd>
** /

```

Found in path(s):

```

* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/sqlite3.h

```

No license file was found, but licenses were detected in source scan.

```

/*

```

```

** CAPI3REF: Configuration Options

```

```

** KEYWORDS: {configuration option}

```

```

**

```

```

** These constants are the available integer configuration options that
** can be passed as the first argument to the [sqlite3_config()] interface.

```

```

**

```

\*\* New configuration options may be added in future releases of SQLite.  
 \*\* Existing configuration options might be discontinued. Applications  
 \*\* should check the return code from [sqlite3\_config()] to make sure that  
 \*\* the call worked. The [sqlite3\_config()] interface will return a  
 \*\* non-zero [error code] if a discontinued or unsupported configuration option  
 \*\* is invoked.  
 \*\*  
 \*\* <dl>  
 \*\* [[SQLITE\_CONFIG\_SINGLETHREAD]] <dt>SQLITE\_CONFIG\_SINGLETHREAD</dt>  
 \*\* <dd>There are no arguments to this option. ^This option sets the  
 \*\* [threading mode] to Single-thread. In other words, it disables  
 \*\* all mutexing and puts SQLite into a mode where it can only be used  
 \*\* by a single thread. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* it is not possible to change the [threading mode] from its default  
 \*\* value of Single-thread and so [sqlite3\_config()] will return  
 \*\* [SQLITE\_ERROR] if called with the SQLITE\_CONFIG\_SINGLETHREAD  
 \*\* configuration option.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_MULTITHREAD]] <dt>SQLITE\_CONFIG\_MULTITHREAD</dt>  
 \*\* <dd>There are no arguments to this option. ^This option sets the  
 \*\* [threading mode] to Multi-thread. In other words, it disables  
 \*\* mutexing on [database connection] and [prepared statement] objects.  
 \*\* The application is responsible for serializing access to  
 \*\* [database connections] and [prepared statements]. But other mutexes  
 \*\* are enabled so that SQLite will be safe to use in a multi-threaded  
 \*\* environment as long as no two threads attempt to use the same  
 \*\* [database connection] at the same time. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* it is not possible to set the Multi-thread [threading mode] and  
 \*\* [sqlite3\_config()] will return [SQLITE\_ERROR] if called with the  
 \*\* SQLITE\_CONFIG\_MULTITHREAD configuration option.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_SERIALIZED]] <dt>SQLITE\_CONFIG\_SERIALIZED</dt>  
 \*\* <dd>There are no arguments to this option. ^This option sets the  
 \*\* [threading mode] to Serialized. In other words, this option enables  
 \*\* all mutexes including the recursive  
 \*\* mutexes on [database connection] and [prepared statement] objects.  
 \*\* In this mode (which is the default when SQLite is compiled with  
 \*\* [SQLITE\_THREADSAFE=1]) the SQLite library will itself serialize access  
 \*\* to [database connections] and [prepared statements] so that the  
 \*\* application is free to use the same [database connection] or the  
 \*\* same [prepared statement] in different threads at the same time.  
 \*\* ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* it is not possible to set the Serialized [threading mode] and  
 \*\* [sqlite3\_config()] will return [SQLITE\_ERROR] if called with the  
 \*\* SQLITE\_CONFIG\_SERIALIZED configuration option.</dd>

\*\*

\*\* `[[SQLITE_CONFIG_MALLOC]]` <dt>SQLITE\_CONFIG\_MALLOC</dt>

\*\* <dd> ^(The SQLITE\_CONFIG\_MALLOC option takes a single argument which is

\*\* a pointer to an instance of the [sqlite3\_mem\_methods] structure.

\*\* The argument specifies

\*\* alternative low-level memory allocation routines to be used in place of

\*\* the memory allocation routines built into SQLite.)^ SQLite makes

\*\* its own private copy of the content of the [sqlite3\_mem\_methods] structure

\*\* before the [sqlite3\_config()] call returns.</dd>

\*\*

\*\* `[[SQLITE_CONFIG_GETMALLOC]]` <dt>SQLITE\_CONFIG\_GETMALLOC</dt>

\*\* <dd> ^(The SQLITE\_CONFIG\_GETMALLOC option takes a single argument which

\*\* is a pointer to an instance of the [sqlite3\_mem\_methods] structure.

\*\* The [sqlite3\_mem\_methods]

\*\* structure is filled with the currently defined memory allocation routines.)^

\*\* This option can be used to overload the default memory allocation

\*\* routines with a wrapper that simulations memory allocation failure or

\*\* tracks memory usage, for example. </dd>

\*\*

\*\* `[[SQLITE_CONFIG_SMALL_MALLOC]]` <dt>SQLITE\_CONFIG\_SMALL\_MALLOC</dt>

\*\* <dd> ^The SQLITE\_CONFIG\_SMALL\_MALLOC option takes single argument of

\*\* type int, interpreted as a boolean, which if true provides a hint to

\*\* SQLite that it should avoid large memory allocations if possible.

\*\* SQLite will run faster if it is free to make large memory allocations,

\*\* but some application might prefer to run slower in exchange for

\*\* guarantees about memory fragmentation that are possible if large

\*\* allocations are avoided. This hint is normally off.

\*\* </dd>

\*\*

\*\* `[[SQLITE_CONFIG_MEMSTATUS]]` <dt>SQLITE\_CONFIG\_MEMSTATUS</dt>

\*\* <dd> ^The SQLITE\_CONFIG\_MEMSTATUS option takes single argument of type int,

\*\* interpreted as a boolean, which enables or disables the collection of

\*\* memory allocation statistics. ^(When memory allocation statistics are

\*\* disabled, the following SQLite interfaces become non-operational:

\*\* <ul>

\*\* <li> [sqlite3\_hard\_heap\_limit64()]

\*\* <li> [sqlite3\_memory\_used()]

\*\* <li> [sqlite3\_memory\_highwater()]

\*\* <li> [sqlite3\_soft\_heap\_limit64()]

\*\* <li> [sqlite3\_status64()]

\*\* </ul>)^

\*\* ^Memory allocation statistics are enabled by default unless SQLite is

\*\* compiled with [SQLITE\_DEFAULT\_MEMSTATUS]=0 in which case memory

\*\* allocation statistics are disabled by default.

\*\* </dd>

\*\*

\*\* `[[SQLITE_CONFIG_SCRATCH]]` <dt>SQLITE\_CONFIG\_SCRATCH</dt>

\*\* <dd> The SQLITE\_CONFIG\_SCRATCH option is no longer used.

\*\* </dd>

\*\*

\*\* [[SQLITE\_CONFIG\_PAGECACHE]] <dt>SQLITE\_CONFIG\_PAGECACHE</dt>

\*\* <dd> ^The SQLITE\_CONFIG\_PAGECACHE option specifies a memory pool that SQLite can use for the database page cache with the default page cache implementation.

\*\* This configuration option is a no-op if an application-defined page cache implementation is loaded using the [SQLITE\_CONFIG\_PCACHE2].

\*\* ^There are three arguments to SQLITE\_CONFIG\_PAGECACHE: A pointer to 8-byte aligned memory (pMem), the size of each page cache line (sz), and the number of cache lines (N).

\*\* The sz argument should be the size of the largest database page (a power of two between 512 and 65536) plus some extra bytes for each page header. ^The number of extra bytes needed by the page header can be determined using [SQLITE\_CONFIG\_PCACHE\_HDRSZ].

\*\* ^It is harmless, apart from the wasted memory, for the sz parameter to be larger than necessary. The pMem argument must be either a NULL pointer or a pointer to an 8-byte aligned block of memory of at least sz\*N bytes, otherwise subsequent behavior is undefined.

\*\* ^When pMem is not NULL, SQLite will strive to use the memory provided to satisfy page cache needs, falling back to [sqlite3\_malloc()] if a page cache line is larger than sz bytes or if all of the pMem buffer is exhausted.

\*\* ^If pMem is NULL and N is non-zero, then each database connection does an initial bulk allocation for page cache memory from [sqlite3\_malloc()] sufficient for N cache lines if N is positive or of -1024\*N bytes if N is negative, . ^If additional page cache memory is needed beyond what is provided by the initial allocation, then SQLite goes to [sqlite3\_malloc()] separately for each additional cache line. </dd>

\*\*

\*\* [[SQLITE\_CONFIG\_HEAP]] <dt>SQLITE\_CONFIG\_HEAP</dt>

\*\* <dd> ^The SQLITE\_CONFIG\_HEAP option specifies a static memory buffer that SQLite will use for all of its dynamic memory allocation needs beyond those provided for by [SQLITE\_CONFIG\_PAGECACHE].

\*\* ^The SQLITE\_CONFIG\_HEAP option is only available if SQLite is compiled with either [SQLITE\_ENABLE\_MEMSYS3] or [SQLITE\_ENABLE\_MEMSYS5] and returns [SQLITE\_ERROR] if invoked otherwise.

\*\* ^There are three arguments to SQLITE\_CONFIG\_HEAP:

\*\* An 8-byte aligned pointer to the memory,

\*\* the number of bytes in the memory buffer, and the minimum allocation size.

\*\* ^If the first pointer (the memory pointer) is NULL, then SQLite reverts to using its default memory allocator (the system malloc() implementation), undoing any prior invocation of [SQLITE\_CONFIG\_MALLOC]. ^If the memory pointer is not NULL then the alternative memory allocator is engaged to handle all of SQLites memory allocation needs.

\*\* The first pointer (the memory pointer) must be aligned to an 8-byte

\*\* boundary or subsequent behavior of SQLite will be undefined.  
 \*\* The minimum allocation size is capped at 2\*\*12. Reasonable values  
 \*\* for the minimum allocation size are 2\*\*5 through 2\*\*8.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_MUTEX]] <dt>SQLITE\_CONFIG\_MUTEX</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_MUTEX option takes a single argument which is a  
 \*\* pointer to an instance of the [sqlite3\_mutex\_methods] structure.  
 \*\* The argument specifies alternative low-level mutex routines to be used  
 \*\* in place the mutex routines built into SQLite.)^ ^SQLite makes a copy of  
 \*\* the content of the [sqlite3\_mutex\_methods] structure before the call to  
 \*\* [sqlite3\_config()] returns. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* the entire mutexing subsystem is omitted from the build and hence calls to  
 \*\* [sqlite3\_config()] with the SQLITE\_CONFIG\_MUTEX configuration option will  
 \*\* return [SQLITE\_ERROR].</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_GETMUTEX]] <dt>SQLITE\_CONFIG\_GETMUTEX</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_GETMUTEX option takes a single argument which  
 \*\* is a pointer to an instance of the [sqlite3\_mutex\_methods] structure. The  
 \*\* [sqlite3\_mutex\_methods]  
 \*\* structure is filled with the currently defined mutex routines.)^  
 \*\* This option can be used to overload the default mutex allocation  
 \*\* routines with a wrapper used to track mutex usage for performance  
 \*\* profiling or testing, for example. ^If SQLite is compiled with  
 \*\* the [SQLITE\_THREADSAFE | SQLITE\_THREADSAFE=0] compile-time option then  
 \*\* the entire mutexing subsystem is omitted from the build and hence calls to  
 \*\* [sqlite3\_config()] with the SQLITE\_CONFIG\_GETMUTEX configuration option will  
 \*\* return [SQLITE\_ERROR].</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_LOOKASIDE]] <dt>SQLITE\_CONFIG\_LOOKASIDE</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_LOOKASIDE option takes two arguments that determine  
 \*\* the default size of lookaside memory on each [database connection].  
 \*\* The first argument is the  
 \*\* size of each lookaside buffer slot and the second is the number of  
 \*\* slots allocated to each database connection.)^ ^(SQLITE\_CONFIG\_LOOKASIDE  
 \*\* sets the <i>default</i> lookaside size. The [SQLITE\_DBCONFIG\_LOOKASIDE]  
 \*\* option to [sqlite3\_db\_config()] can be used to change the lookaside  
 \*\* configuration on individual connections.)^ </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_PCACHE2]] <dt>SQLITE\_CONFIG\_PCACHE2</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_PCACHE2 option takes a single argument which is  
 \*\* a pointer to an [sqlite3\_pcache\_methods2] object. This object specifies  
 \*\* the interface to a custom page cache implementation.)^  
 \*\* ^SQLite makes a copy of the [sqlite3\_pcache\_methods2] object.</dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_GETPCACHE2]] <dt>SQLITE\_CONFIG\_GETPCACHE2</dt>  
 \*\* <dd> ^(The SQLITE\_CONFIG\_GETPCACHE2 option takes a single argument which  
 \*\* is a pointer to an [sqlite3\_pcache\_methods2] object. SQLite copies of



\*\* the current page cache implementation into that object.)^ </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_LOG]] <dt>SQLITE\_CONFIG\_LOG</dt>  
 \*\* <dd> The SQLITE\_CONFIG\_LOG option is used to configure the SQLite  
 \*\* global [error log].  
 \*\* (^The SQLITE\_CONFIG\_LOG option takes two arguments: a pointer to a  
 \*\* function with a call signature of void\*(void\*,int,const char\*),  
 \*\* and a pointer to void. ^If the function pointer is not NULL, it is  
 \*\* invoked by [sqlite3\_log()] to process each logging event. ^If the  
 \*\* function pointer is NULL, the [sqlite3\_log()] interface becomes a no-op.  
 \*\* ^The void pointer that is the second argument to SQLITE\_CONFIG\_LOG is  
 \*\* passed through as the first parameter to the application-defined logger  
 \*\* function whenever that function is invoked. ^The second parameter to  
 \*\* the logger function is a copy of the first parameter to the corresponding  
 \*\* [sqlite3\_log()] call and is intended to be a [result code] or an  
 \*\* [extended result code]. ^The third parameter passed to the logger is  
 \*\* log message after formatting via [sqlite3\_snprintf()].  
 \*\* The SQLite logging interface is not reentrant; the logger function  
 \*\* supplied by the application must not invoke any SQLite interface.  
 \*\* In a multi-threaded application, the application-defined logger  
 \*\* function must be threadsafe. </dd>  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_URI]] <dt>SQLITE\_CONFIG\_URI  
 \*\* <dd>^(The SQLITE\_CONFIG\_URI option takes a single argument of type int.  
 \*\* If non-zero, then URI handling is globally enabled. If the parameter is zero,  
 \*\* then URI handling is globally disabled.)^ ^If URI handling is globally  
 \*\* enabled, all filenames passed to [sqlite3\_open()], [sqlite3\_open\_v2()],  
 \*\* [sqlite3\_open16()] or  
 \*\* specified as part of [ATTACH] commands are interpreted as URIs, regardless  
 \*\* of whether or not the [SQLITE\_OPEN\_URI] flag is set when the database  
 \*\* connection is opened. ^If it is globally disabled, filenames are  
 \*\* only interpreted as URIs if the [SQLITE\_OPEN\_URI] flag is set when the  
 \*\* database connection is opened. ^By default, URI handling is globally  
 \*\* disabled. The default value may be changed by compiling with the  
 \*\* [SQLITE\_USE\_URI] symbol defined.)^  
 \*\*  
 \*\* [[SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN]] <dt>SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN  
 \*\* <dd>^The SQLITE\_CONFIG\_COVERING\_INDEX\_SCAN option takes a single integer  
 \*\* argument which is interpreted as a boolean in order to enable or disable  
 \*\* the use of covering indices for full table scans in the query optimizer.  
 \*\* ^The default setting is determined  
 \*\* by the [SQLITE\_ALLOW\_COVERING\_INDEX\_SCAN] compile-time option, or is "on"  
 \*\* if that compile-time option is omitted.  
 \*\* The ability to disable the use of covering indices for full table scans  
 \*\* is because some incorrectly coded legacy applications might malfunction  
 \*\* when the optimization is enabled. Providing the ability to  
 \*\* disable the optimization allows the older, buggy application code to work  
 \*\* without change even with newer versions of SQLite.

\*\*

\*\* `[[SQLITE_CONFIG_PCACHE]]` `[[SQLITE_CONFIG_GETPCACHE]]`

\*\* `<dt>SQLITE_CONFIG_PCACHE` and `SQLITE_CONFIG_GETPCACHE`

\*\* `<dd>` These options are obsolete and should not be used by new code.

\*\* They are retained for backwards compatibility but are now no-ops.

\*\* `</dd>`

\*\*

\*\* `[[SQLITE_CONFIG_SQLLOG]]`

\*\* `<dt>SQLITE_CONFIG_SQLLOG`

\*\* `<dd>`This option is only available if `sqlite` is compiled with the

\*\* `[[SQLITE_ENABLE_SQLLOG]]` pre-processor macro defined. The first argument should

\*\* be a pointer to a function of type `void*(void*,sqlite3*,const char*, int)`.

\*\* The second should be of type `(void*)`. The callback is invoked by the library

\*\* in three separate circumstances, identified by the value passed as the

\*\* fourth parameter. If the fourth parameter is 0, then the database connection

\*\* passed as the second argument has just been opened. The third argument

\*\* points to a buffer containing the name of the main database file. If the

\*\* fourth parameter is 1, then the SQL statement that the third parameter

\*\* points to has just been executed. Or, if the fourth parameter is 2, then

\*\* the connection being passed as the second parameter is being closed. The

\*\* third parameter is passed NULL in this case. An example of using this

\*\* configuration option can be seen in the "test\_sqllog.c" source file in

\*\* the canonical SQLite source tree.`</dd>`

\*\*

\*\* `[[SQLITE_CONFIG_MMAP_SIZE]]`

\*\* `<dt>SQLITE_CONFIG_MMAP_SIZE`

\*\* `<dd>``^SQLITE_CONFIG_MMAP_SIZE` takes two 64-bit integer (`sqlite3_int64`) values

\*\* that are the default mmap size limit (the default setting for

\*\* `[[PRAGMA mmap_size]]`) and the maximum allowed mmap size limit.

\*\* `^`The default setting can be overridden by each database connection using

\*\* either the `[[PRAGMA mmap_size]]` command, or by using the

\*\* `[[SQLITE_FCNTL_MMAP_SIZE]]` file control. `^`(The maximum allowed mmap size

\*\* will be silently truncated if necessary so that it does not exceed the

\*\* compile-time maximum mmap size set by the

\*\* `[[SQLITE_MAX_MMAP_SIZE]]` compile-time option.)`^`

\*\* `^`If either argument to this option is negative, then that argument is

\*\* changed to its compile-time default.

\*\*

\*\* `[[SQLITE_CONFIG_WIN32_HEAPSIZE]]`

\*\* `<dt>SQLITE_CONFIG_WIN32_HEAPSIZE`

\*\* `<dd>``^SQLITE_CONFIG_WIN32_HEAPSIZE` option is only available if SQLite is

\*\* compiled for Windows with the `[[SQLITE_WIN32_MALLOC]]` pre-processor macro

\*\* defined. `^SQLITE_CONFIG_WIN32_HEAPSIZE` takes a 32-bit unsigned integer value

\*\* that specifies the maximum size of the created heap.

\*\*

\*\* `[[SQLITE_CONFIG_PCACHE_HDRSZ]]`

\*\* `<dt>SQLITE_CONFIG_PCACHE_HDRSZ`

\*\* `<dd>``^SQLITE_CONFIG_PCACHE_HDRSZ` option takes a single parameter which

\*\* is a pointer to an integer and writes into that integer the number of extra  
 \*\* bytes per page required for each page in [SQLITE\_CONFIG\_PAGECACHE].  
 \*\* The amount of extra space required can change depending on the compiler,  
 \*\* target platform, and SQLite version.  
 \*\*

\*\* [[SQLITE\_CONFIG\_PMASZ]]  
 \*\* <dt>SQLITE\_CONFIG\_PMASZ  
 \*\* <dd>^The SQLITE\_CONFIG\_PMASZ option takes a single parameter which  
 \*\* is an unsigned integer and sets the "Minimum PMA Size" for the multithreaded  
 \*\* sorter to that integer. The default minimum PMA Size is set by the  
 \*\* [SQLITE\_SORTER\_PMASZ] compile-time option. New threads are launched  
 \*\* to help with sort operations when multithreaded sorting  
 \*\* is enabled (using the [PRAGMA threads] command) and the amount of content  
 \*\* to be sorted exceeds the page size times the minimum of the  
 \*\* [PRAGMA cache\_size] setting and this value.  
 \*\*

\*\* [[SQLITE\_CONFIG\_STMTJRNL\_SPILL]]  
 \*\* <dt>SQLITE\_CONFIG\_STMTJRNL\_SPILL  
 \*\* <dd>^The SQLITE\_CONFIG\_STMTJRNL\_SPILL option takes a single parameter which  
 \*\* becomes the [statement journal] spill-to-disk threshold.  
 \*\* [Statement journals] are held in memory until their size (in bytes)  
 \*\* exceeds this threshold, at which point they are written to disk.  
 \*\* Or if the threshold is -1, statement journals are always held  
 \*\* exclusively in memory.  
 \*\* Since many statement journals never become large, setting the spill  
 \*\* threshold to a value such as 64KiB can greatly reduce the amount of  
 \*\* I/O required to support statement rollback.  
 \*\* The default value for this setting is controlled by the  
 \*\* [SQLITE\_STMTJRNL\_SPILL] compile-time option.  
 \*\*

\*\* [[SQLITE\_CONFIG\_SORTERREF\_SIZE]]  
 \*\* <dt>SQLITE\_CONFIG\_SORTERREF\_SIZE  
 \*\* <dd>The SQLITE\_CONFIG\_SORTERREF\_SIZE option accepts a single parameter  
 \*\* of type (int) - the new value of the sorter-reference size threshold.  
 \*\* Usually, when SQLite uses an external sort to order records according  
 \*\* to an ORDER BY clause, all fields required by the caller are present in the  
 \*\* sorted records. However, if SQLite determines based on the declared type  
 \*\* of a table column that its values are likely to be very large - larger  
 \*\* than the configured sorter-reference size threshold - then a reference  
 \*\* is stored in each sorted record and the required column values loaded  
 \*\* from the database as records are returned in sorted order. The default  
 \*\* value for this option is to never use this optimization. Specifying a  
 \*\* negative value for this option restores the default behaviour.  
 \*\* This option is only available if SQLite is compiled with the  
 \*\* [SQLITE\_ENABLE\_SORTER\_REFERENCES] compile-time option.  
 \*\*

\*\* [[SQLITE\_CONFIG\_MEMDB\_MAXSIZE]]  
 \*\* <dt>SQLITE\_CONFIG\_MEMDB\_MAXSIZE

```

** <dd>The SQLITE_CONFIG_MEMDB_MAXSIZE option accepts a single parameter
** [sqlite3_int64] parameter which is the default maximum size for an in-memory
** database created using [sqlite3_deserialize()]. This default maximum
** size can be adjusted up or down for individual databases using the
** [SQLITE_FCNTL_SIZE_LIMIT] [sqlite3_file_control|file-control]. If this
** configuration setting is never used, then the default maximum is determined
** by the [SQLITE_MEMDB_DEFAULT_MAXSIZE] compile-time option. If that
** compile-time option is not set, then the default maximum is 1073741824.
** </dd>
*/
/*
** The "printf" code that follows dates from the 1980's. It is in
** the public domain.
**

**
** This file contains code for a set of "printf"-like routines. These
** routines format strings much like the printf() from the standard C
** library, though the implementation here has enhancements to support
** SQLite.
*/
/*
** 2004 May 22
**
** The author disclaims copyright to this source code. In place of
** a legal notice, here is a blessing:
**
** May you do good and not evil.
** May you find forgiveness for yourself and forgive others.
** May you share freely, never taking more than you give.
**

**
** This file contains the VFS implementation for unix-like operating systems
** include Linux, MacOSX, *BSD, QNX, VxWorks, AIX, HPUX, and others.
**
** There are actually several different VFS implementations in this file.
** The differences are in the way that file locking is done. The default
** implementation uses Posix Advisory Locks. Alternative implementations
** use flock(), dot-files, various proprietary locking schemas, or simply
** skip locking all together.
**
** This source file is organized into divisions where the logic for various
** subfunctions is contained within the appropriate division. PLEASE
** KEEP THE STRUCTURE OF THIS FILE INTACT. New code should be placed
** in the correct division and should be clearly labeled.
**
** The layout of divisions is as follows:

```

```

**
** * General-purpose declarations and utility functions.
** * Unique file ID logic used by VxWorks.
** * Various locking primitive implementations (all except proxy locking):
** + for Posix Advisory Locks
** + for no-op locks
** + for dot-file locks
** + for flock() locking
** + for named semaphore locks (VxWorks only)
** + for AFP filesystem locks (MacOSX only)
** * sqlite3_file methods not associated with locking.
** * Definitions of sqlite3_io_methods objects for all locking
** methods plus "finder" functions for each locking method.
** * sqlite3_vfs method implementations.
** * Locking primitives for the proxy uber-locking-method. (MacOSX only)
** * Definitions of sqlite3_vfs objects for all locking methods
** plus implementations of sqlite3_os_init() and sqlite3_os_end().
*/
/*
** Return a pointer to the "temporary page" buffer held internally
** by the pager. This is a buffer that is big enough to hold the
** entire content of a database page. This buffer is used internally
** during rollback and will be overwritten whenever a rollback
** occurs. But other modules are free to use it too, as long as
** no rollbacks are happening.
*/

```

Found in path(s):

```

* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/sqlite3.c

```

## 1.412 speexdsp 1.2.0-1

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## 1.413 libdaemon 0.14-4

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Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short  
notice like this when it starts in an interactive mode:

```
<program> Copyright (C) <year> <name of author>
This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands `show w' and `show c' should show the appropriate  
parts of the General Public License. Of course, your program's commands  
might be different; for a GUI interface, you would use an "about box".

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Version 3, 29 June 2007

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## 1.419 fltk 1.3.5-1

### 1.419.1 Available under license :

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December 11, 2001

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The authors do request that such modifications be contributed to the FLTK project - send all contributions through the "Software Trouble Report" on the following page:

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2. Widgets that are subclassed from FLTK widgets do not constitute a derivative work.
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[program/widget] is based in part on the work of the FLTK project (<http://www.fltk.org>).

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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<one line to give the library's name and a brief idea of what it does.>  
Copyright (C) <year> <name of author>

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Also add information on how to contact you by electronic and paper mail.

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Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

## 1.420 jfsutils 1.1.15-6

### 1.420.1 Available under license :

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Version 3, 29 June 2007

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=====  
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/\*  
\* GSS-API Programming Guide  
\* Part No: 816-1331-11  
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## 1.423 graphite 1:1.3.13-1

### 1.423.1 Available under license :

Format: <http://dep.debian.net/deps/dep5>

Upstream-Name: graphite2

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Files: \*

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## 1.428 libsamplerate 0.1.9

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# 1.429 java-runtime-common 3 1

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Mathias Goldau  
Richard Jensen  
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/\*\*\*\*\*

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 *
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 *
*/
```

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## xwd v1.0.7

### xwd utility

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include/GL/glxext.h
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```

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```

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<signature of Ty Coon>, 1 April 1989
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## 1.439 iptables 1.8.3

## 1.440 libmnl 1.0.4-2

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```
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 * markupsafe._speedups
 * ~~~~~
 *
 * C implementation of escaping for better performance. Used instead of
 * the native Python implementation when compiled.
 *
 * :copyright: 2010 Pallets
 * :license: BSD-3-Clause
 */
```

Found in path(s):

```
* /opt/cola/permits/1160876786_1620411589.43/0/sailfishos-mirror-markupsafe-1-1-1-0-g22c946d-1-tar-gz/sailfishos-mirror-markupsafe-22c946d/src/markupsafe/_speedups.c
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\* /opt/cola/permits/1160876786\_1620411589.43/0/sailfishos-mirror-markupsafe-1-1-1-0-g22c946d-1-tar-gz/sailfishos-mirror-markupsafe-22c946d/src/markupsafe/\_compat.py

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# 1.442 binutils 2.39

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+++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for gdb-specific debug information and the 68k series machines, most of the preprocessing pass, and extensive changes in messages.c, input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various enhancements and many bug fixes, including merging support for several processors, breaking gas up to handle multiple object file format backends (including heavy rewrite, testing, an integration of the coff and b.out backends), adding configuration including heavy testing and verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan. Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of

Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't intentionally leaving anyone out.

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## 1.443 coreutils 8.31

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# 1.445 opentracing-go 1.2.0

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## 1.446 Ivm2 2.02.185

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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Version 3, 29 June 2007

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## TERMS AND CONDITIONS

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`add_project(aws-cpp-sdk-license-manager "C++ SDK for the AWS license-manager service" aws-cpp-sdk-core)`

```
file(GLOB AWS_LICENSE-MANAGER_HEADERS
```

```
 "include/aws/license-manager/*.h"
```

```
)
```

```
file(GLOB AWS_LICENSE-MANAGER_MODEL_HEADERS
```

```
 "include/aws/license-manager/model/*.h"
```

```
)
```

```
file(GLOB AWS_LICENSE-MANAGER_SOURCE
```

```
 "source/*.cpp"
```

```
)
```

```
file(GLOB AWS_LICENSE-MANAGER_MODEL_SOURCE
```

```
 "source/model/*.cpp"
```

```
)
```

```
file(GLOB LICENSE-MANAGER_UNIFIED_HEADERS
```

```
 ${AWS_LICENSE-MANAGER_HEADERS}
```

```
 ${AWS_LICENSE-MANAGER_MODEL_HEADERS}
```

```
)
```

```

file(GLOB LICENSE-MANAGER_UNITY_SRC
 ${AWS_LICENSE-MANAGER_SOURCE}
 ${AWS_LICENSE-MANAGER_MODEL_SOURCE}
)

if(ENABLE_UNITY_BUILD)
 enable_unity_build("LICENSE-MANAGER" LICENSE-MANAGER_UNITY_SRC)
endif()

file(GLOB LICENSE-MANAGER_SRC
 ${LICENSE-MANAGER_UNIFIED_HEADERS}
 ${LICENSE-MANAGER_UNITY_SRC}
)

if(WIN32)
 #if we are compiling for visual studio, create a sane directory tree.
 if(MSVC)
 source_group("Header Files\\aws\\license-manager" FILES ${AWS_LICENSE-MANAGER_HEADERS})
 source_group("Header Files\\aws\\license-manager\\model" FILES ${AWS_LICENSE-
MANAGER_MODEL_HEADERS})
 source_group("Source Files" FILES ${AWS_LICENSE-MANAGER_SOURCE})
 source_group("Source Files\\model" FILES ${AWS_LICENSE-MANAGER_MODEL_SOURCE})
 endif(MSVC)
endif()

set(LICENSE-MANAGER_INCLUDES
 "${CMAKE_CURRENT_SOURCE_DIR}/include/"
)

add_library(${PROJECT_NAME} ${LICENSE-MANAGER_SRC})
add_library(AWS::${PROJECT_NAME} ALIAS ${PROJECT_NAME})

set_compiler_flags(${PROJECT_NAME})
set_compiler_warnings(${PROJECT_NAME})

if(USE_WINDOWS_DLL_SEMANTICS AND BUILD_SHARED_LIBS)
 target_compile_definitions(${PROJECT_NAME} PRIVATE "AWS_LICENSEMANAGER_EXPORTS")
endif()

target_include_directories(${PROJECT_NAME} PUBLIC
 $<BUILD_INTERFACE:${CMAKE_CURRENT_SOURCE_DIR}/include>
 $<INSTALL_INTERFACE:include>)

target_link_libraries(${PROJECT_NAME} PRIVATE ${PLATFORM_DEP_LIBS} ${PROJECT_LIBS})

setup_install()

```

```
install (FILES ${AWS_LICENSE-MANAGER_HEADERS} DESTINATION
${INCLUDE_DIRECTORY}/aws/license-manager)
install (FILES ${AWS_LICENSE-MANAGER_MODEL_HEADERS} DESTINATION
${INCLUDE_DIRECTORY}/aws/license-manager/model)
```

do\_packaging()

AWS SDK for C++

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name: License Scan

on:

schedule:

- cron: "0 0 \* \* \*"

jobs:

build:

runs-on: ubuntu-latest

strategy:

matrix:

python-version: [3.9]

steps:

- name: Checkout main

uses: actions/checkout@v2

with:

repository: aws/aws-sdk-cpp

path: aws-sdk-cpp

ref: main

- name: Checkout stable version

uses: actions/checkout@v2

with:

```

 repository: aws/aws-sdk-cpp
 path: new-ref
 ref: "1.9.85"
- name: Checkout scancode
 uses: actions/checkout@v2
 with:
 repository: nexB/scancode-toolkit
 path: scancode-toolkit
 fetch-depth: 1
- name: Set up Python ${{ matrix.python-version }}
 uses: actions/setup-python@v2
 with:
 python-version: ${{ matrix.python-version }}
ScanCode
- name: Self-configure scancode
 working-directory: ./scancode-toolkit
 run: ./scancode --help
- name: Run Scan code
 run: |
 ./scancode-toolkit/scancode -l -n 30 --json-pp - ./aws-sdk-cpp/aws-cpp-sdk-core | grep short_name | sed -e
's/^"short_name\": //' -e 's/"/\,\/g' | sort | uniq > old-licenses.txt
 ./scancode-toolkit/scancode -l -n 30 --json-pp - ./new-ref/aws-cpp-sdk-core | grep short_name | sed -e
's/^"short_name\": //' -e 's/"/\,\/g' | sort | uniq > new-licenses.txt
 # compare
- name: License test
 run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
Apache License
Version 2.0, January 2004

```

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name: License Scan

on: [pull\_request]

jobs:

build:

runs-on: ubuntu-latest

strategy:

matrix:

python-version: [3.9]

steps:

- name: Checkout target

uses: actions/checkout@v2

with:

path: sdkmain

ref: \${{ github.base\_ref }}

- name: Checkout this ref

uses: actions/checkout@v2

with:

path: new-ref

fetch-depth: 0

- name: Get Diff

run: git --git-dir ./new-ref/.git diff --name-only --diff-filter=ACMRT \${{ github.event.pull\_request.base.sha }}

\${{ github.sha }} | xargs > fileList.txt

- name: Checkout scancode

uses: actions/checkout@v2

with:

repository: nexB/scancode-toolkit

path: scancode-toolkit

fetch-depth: 1

- name: Set up Python \${{ matrix.python-version }}

uses: actions/setup-python@v2

with:

python-version: \${{ matrix.python-version }}

# ScanCode

- name: Self-configure scancode

working-directory: ./scancode-toolkit

run: ./scancode --help

```
- name: Run Scan code on pr ref
 run: for filename in $(cat fileList.txt); do ./scancode-toolkit/scancode -l -n 30 --json-pp - ./sdkmain/$filename |
grep short_name | sort | uniq >> old-licenses.txt; done
- name: Run Scan code on target
 run: for filename in $(cat fileList.txt); do ./scancode-toolkit/scancode -l -n 30 --json-pp - ./new-ref/$filename |
grep short_name | sort | uniq >> new-licenses.txt; done
compare
- name: License test
 run: if ! cmp old-licenses.txt new-licenses.txt; then echo "Licenses differ! Failing."; exit -1; else echo "Licenses
are the same. Success."; exit 0; fi
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**1.453 go-runit 0.0.0-20150630195641-06ad41a06c4a**

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## 1.454 libkrb5 1.20.1

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cmd/krb5/iprof/iprof.x

cmd/krb5/iprop/iprop\_hdr.h  
cmd/krb5/kadmin/server/ipropd\_svc.c  
cmd/krb5/kproplog/kproplog.c  
cmd/krb5/slave/kpropd\_rpc.c  
lib/gss\_mechs/mech\_krb5/et/kdb5\_err.c  
lib/gss\_mechs/mech\_spnego/mech/gssapiP\_spnego.h  
lib/gss\_mechs/mech\_spnego/mech/spnego\_mech.c  
lib/krb5/kadm5/kadm\_host\_srv\_names.c  
lib/krb5/kdb/kdb\_convert.c  
lib/krb5/kdb/kdb\_hdr.h  
lib/krb5/kdb/kdb\_log.c  
lib/krb5/kdb/kdb\_log.h  
lib/libgss/g\_accept\_sec\_context.c  
lib/libgss/g\_acquire\_cred.c  
lib/libgss/g\_canon\_name.c  
lib/libgss/g\_compare\_name.c  
lib/libgss/g\_context\_time.c  
lib/libgss/g\_delete\_sec\_context.c  
lib/libgss/g\_dsp\_name.c  
lib/libgss/g\_dsp\_status.c  
lib/libgss/g\_dup\_name.c  
lib/libgss/g\_exp\_sec\_context.c  
lib/libgss/g\_export\_name.c  
lib/libgss/g\_glue.c  
lib/libgss/g\_imp\_name.c  
lib/libgss/g\_imp\_sec\_context.c  
lib/libgss/g\_init\_sec\_context.c  
lib/libgss/g\_initialize.c  
lib/libgss/g\_inquire\_context.c  
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lib/libgss/g\_unseal.c  
lib/libgss/g\_userok.c  
lib/libgss/g\_utils.c  
lib/libgss/g\_verify.c  
lib/libgss/gssd\_pname\_to\_uid.c  
uts/common/gssapi/include/gssapi\_err\_generic.h  
uts/common/gssapi/include/mechglueP.h

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lib/gssapi/mechglue/g\_accept\_sec\_context.c  
lib/gssapi/mechglue/g\_acquire\_cred.c  
lib/gssapi/mechglue/g\_canon\_name.c  
lib/gssapi/mechglue/g\_compare\_name.c  
lib/gssapi/mechglue/g\_context\_time.c  
lib/gssapi/mechglue/g\_delete\_sec\_context.c  
lib/gssapi/mechglue/g\_dsp\_name.c

lib/gssapi/mechglue/g\_dsp\_status.c  
lib/gssapi/mechglue/g\_dup\_name.c  
lib/gssapi/mechglue/g\_exp\_sec\_context.c  
lib/gssapi/mechglue/g\_export\_name.c  
lib/gssapi/mechglue/g\_glue.c  
lib/gssapi/mechglue/g\_imp\_name.c  
lib/gssapi/mechglue/g\_imp\_sec\_context.c  
lib/gssapi/mechglue/g\_init\_sec\_context.c  
lib/gssapi/mechglue/g\_initialize.c  
lib/gssapi/mechglue/g\_inquire\_context.c  
lib/gssapi/mechglue/g\_inquire\_cred.c  
lib/gssapi/mechglue/g\_inquire\_names.c  
lib/gssapi/mechglue/g\_process\_context.c  
lib/gssapi/mechglue/g\_rel\_buffer.c  
lib/gssapi/mechglue/g\_rel\_cred.c  
lib/gssapi/mechglue/g\_rel\_name.c  
lib/gssapi/mechglue/g\_rel\_oid\_set.c  
lib/gssapi/mechglue/g\_seal.c  
lib/gssapi/mechglue/g\_sign.c  
lib/gssapi/mechglue/g\_store\_cred.c  
lib/gssapi/mechglue/g\_unseal.c  
lib/gssapi/mechglue/g\_userok.c  
lib/gssapi/mechglue/g\_utils.c  
lib/gssapi/mechglue/g\_verify.c  
lib/gssapi/mechglue/gssd\_pname\_to\_uid.c  
lib/gssapi/mechglue/mglueP.h  
lib/gssapi/mechglue/oid\_ops.c  
lib/gssapi/spnego/gssapiP\_spnego.h  
lib/gssapi/spnego/spnego\_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/iprop\_hdr.h  
kadmin/server/ipropd\_svc.c  
lib/kdb/iprop.x  
lib/kdb/kdb\_convert.c  
lib/kdb/kdb\_log.c  
lib/kdb/kdb\_log.h  
lib/krb5/error\_tables/kdb5\_err.et  
kprop/kpropd\_rpc.c  
kprop/kproplog.c

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## 1.456 libxaw 1.0.13 2

### 1.456.1 Available under license :

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## 1.457 speex 1.2.0

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## 1.458 llvm 8.0.1

### 1.458.1 Available under license :

```
; RUN: llc < %s -mtriple=s390x-linux-gnu -mcpu=zEC12 -verify-machineinstrs | FileCheck %s
;
; Test that early if conversion produces LOCR with operands of the right
; register classes.
```

```
define void @autogen_SD4739(i8*) {
; CHECK-NOT: Expected a GR32Bit register, but got a GRX32Bit register
BB:
 %L34 = load i8, i8* %0
 %Cmp56 = icmp sgt i8 undef, %L34
 br label %CF246

CF246: ; preds = %CF246, %BB
 %S1163 = select i1 %Cmp56, i8 %L34, i8 undef
 br i1 undef, label %CF246, label %CF248

CF248: ; preds = %CF248, %CF246
```

```
store i8 %S1163, i8* %0
```

```
br label %CF248
```

```
}
```

```
; NOTE: Assertions have been autogenerated by utils/update_llc_test_checks.py
```

```
; RUN: llc < %s -mtriple=x86_64-unknown-unknown -mattr=avx512vl,avx512bw,avx512dq,prefer-256-bit |
FileCheck %s
```

; This file primarily contains tests for specific places in X86ISelLowering.cpp that needed be made aware of the legalizer not allowing 512-bit vectors due to prefer-256-bit even though AVX512 is enabled.

```
define void @add256(<16 x i32>* %a, <16 x i32>* %b, <16 x i32>* %c) "min-legal-vector-width"="256" {
```

```
; CHECK-LABEL: add256:
```

```
; CHECK: # %bb.0:
```

```
; CHECK-NEXT: vmovdqa (%rdi), %ymm0
```

```
; CHECK-NEXT: vmovdqa 32(%rdi), %ymm1
```

```
; CHECK-NEXT: vpadd (%rsi), %ymm0, %ymm0
```

```
; CHECK-NEXT: vpadd 32(%rsi), %ymm1, %ymm1
```

```
; CHECK-NEXT: vmovdqa %ymm1, 32(%rdx)
```

```
; CHECK-NEXT: vmovdqa %ymm0, (%rdx)
```

```
; CHECK-NEXT: vzeroupper
```

```
; CHECK-NEXT: retq
```

```
%d = load <16 x i32>, <16 x i32>* %a
```

```
%e = load <16 x i32>, <16 x i32>* %b
```

```
%f = add <16 x i32> %d, %e
```

```
store <16 x i32> %f, <16 x i32>* %c
```

```
ret void
```

```
}
```

```
define void @add512(<16 x i32>* %a, <16 x i32>* %b, <16 x i32>* %c) "min-legal-vector-width"="512" {
```

```
; CHECK-LABEL: add512:
```

```
; CHECK: # %bb.0:
```

```
; CHECK-NEXT: vmovdqa64 (%rdi), %zmm0
```

```
; CHECK-NEXT: vpadd (%rsi), %zmm0, %zmm0
```

```
; CHECK-NEXT: vmovdqa64 %zmm0, (%rdx)
```

```
; CHECK-NEXT: vzeroupper
```

```
; CHECK-NEXT: retq
```

```
%d = load <16 x i32>, <16 x i32>* %a
```

```
%e = load <16 x i32>, <16 x i32>* %b
```

```
%f = add <16 x i32> %d, %e
```

```
store <16 x i32> %f, <16 x i32>* %c
```

```
ret void
```

```
}
```

```
define void @avg_v64i8_256(<64 x i8>* %a, <64 x i8>* %b) "min-legal-vector-width"="256" {
```

```
; CHECK-LABEL: avg_v64i8_256:
```

```
; CHECK: # %bb.0:
```

```
; CHECK-NEXT: vmovdqa (%rsi), %ymm0
```

```
; CHECK-NEXT: vmovdqa 32(%rsi), %ymm1
```



```

ret void
}

define void @pmaddwd_32_256(<32 x i16>* %APtr, <32 x i16>* %BPtr, <16 x i32>* %CPtr) "min-legal-vector-
width"="256" {
; CHECK-LABEL: pmaddwd_32_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa (%rdi), %ymm0
; CHECK-NEXT: vmovdqa 32(%rdi), %ymm1
; CHECK-NEXT: vpmaddwd (%rsi), %ymm0, %ymm0
; CHECK-NEXT: vpmaddwd 32(%rsi), %ymm1, %ymm1
; CHECK-NEXT: vmovdqa %ymm1, 32(%rdx)
; CHECK-NEXT: vmovdqa %ymm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%A = load <32 x i16>, <32 x i16>* %APtr
%B = load <32 x i16>, <32 x i16>* %BPtr
%a = sext <32 x i16> %A to <32 x i32>
%b = sext <32 x i16> %B to <32 x i32>
%m = mul nsw <32 x i32> %a, %b
%odd = shufflevector <32 x i32> %m, <32 x i32> undef, <16 x i32> <i32 0, i32 2, i32 4, i32 6, i32 8, i32 10, i32
12, i32 14, i32 16, i32 18, i32 20, i32 22, i32 24, i32 26, i32 28, i32 30>
%even = shufflevector <32 x i32> %m, <32 x i32> undef, <16 x i32> <i32 1, i32 3, i32 5, i32 7, i32 9, i32 11, i32
13, i32 15, i32 17, i32 19, i32 21, i32 23, i32 25, i32 27, i32 29, i32 31>
%ret = add <16 x i32> %odd, %even
store <16 x i32> %ret, <16 x i32>* %CPtr
ret void
}

```

```

define void @pmaddwd_32_512(<32 x i16>* %APtr, <32 x i16>* %BPtr, <16 x i32>* %CPtr) "min-legal-vector-
width"="512" {
; CHECK-LABEL: pmaddwd_32_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa64 (%rdi), %zmm0
; CHECK-NEXT: vpmaddwd (%rsi), %zmm0, %zmm0
; CHECK-NEXT: vmovdqa64 %zmm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%A = load <32 x i16>, <32 x i16>* %APtr
%B = load <32 x i16>, <32 x i16>* %BPtr
%a = sext <32 x i16> %A to <32 x i32>
%b = sext <32 x i16> %B to <32 x i32>
%m = mul nsw <32 x i32> %a, %b
%odd = shufflevector <32 x i32> %m, <32 x i32> undef, <16 x i32> <i32 0, i32 2, i32 4, i32 6, i32 8, i32 10, i32
12, i32 14, i32 16, i32 18, i32 20, i32 22, i32 24, i32 26, i32 28, i32 30>
%even = shufflevector <32 x i32> %m, <32 x i32> undef, <16 x i32> <i32 1, i32 3, i32 5, i32 7, i32 9, i32 11, i32
13, i32 15, i32 17, i32 19, i32 21, i32 23, i32 25, i32 27, i32 29, i32 31>
%ret = add <16 x i32> %odd, %even

```

```

store <16 x i32> %ret, <16 x i32>* %CPtr
ret void
}

define void @psubus_64i8_max_256(<64 x i8>* %xptr, <64 x i8>* %yptr, <64 x i8>* %zptr) "min-legal-vector-
width"="256" {
; CHECK-LABEL: psubus_64i8_max_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa (%rdi), %ymm0
; CHECK-NEXT: vmovdqa 32(%rdi), %ymm1
; CHECK-NEXT: vpsubusb (%rsi), %ymm0, %ymm0
; CHECK-NEXT: vpsubusb 32(%rsi), %ymm1, %ymm1
; CHECK-NEXT: vmovdqa %ymm1, 32(%rdx)
; CHECK-NEXT: vmovdqa %ymm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%x = load <64 x i8>, <64 x i8>* %xptr
%y = load <64 x i8>, <64 x i8>* %yptr
%cmp = icmp ult <64 x i8> %x, %y
%max = select <64 x i1> %cmp, <64 x i8> %y, <64 x i8> %x
%res = sub <64 x i8> %max, %y
store <64 x i8> %res, <64 x i8>* %zptr
ret void
}

define void @psubus_64i8_max_512(<64 x i8>* %xptr, <64 x i8>* %yptr, <64 x i8>* %zptr) "min-legal-vector-
width"="512" {
; CHECK-LABEL: psubus_64i8_max_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa64 (%rdi), %zmm0
; CHECK-NEXT: vpsubusb (%rsi), %zmm0, %zmm0
; CHECK-NEXT: vmovdqa64 %zmm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%x = load <64 x i8>, <64 x i8>* %xptr
%y = load <64 x i8>, <64 x i8>* %yptr
%cmp = icmp ult <64 x i8> %x, %y
%max = select <64 x i1> %cmp, <64 x i8> %y, <64 x i8> %x
%res = sub <64 x i8> %max, %y
store <64 x i8> %res, <64 x i8>* %zptr
ret void
}

define i32 @_Z9test_charPcS_i_256(i8* nocapture readonly, i8* nocapture readonly, i32) "min-legal-vector-
width"="256" {
; CHECK-LABEL: _Z9test_charPcS_i_256:
; CHECK: # %bb.0: # %entry
; CHECK-NEXT: movl %edx, %eax

```

```

; CHECK-NEXT: vpxor %xmm0, %xmm0, %xmm0
; CHECK-NEXT: xorl %ecx, %ecx
; CHECK-NEXT: vpxor %xmm1, %xmm1, %xmm1
; CHECK-NEXT: vpxor %xmm2, %xmm2, %xmm2
; CHECK-NEXT: .p2align 4, 0x90
; CHECK-NEXT: .LBB8_1: # %vector.body
; CHECK-NEXT: # =>This Inner Loop Header: Depth=1
; CHECK-NEXT: vpmovsxbw (%rdi,%rcx), %ymm3
; CHECK-NEXT: vpmovsxbw 16(%rdi,%rcx), %ymm4
; CHECK-NEXT: vpmovsxbw (%rsi,%rcx), %ymm5
; CHECK-NEXT: vpmaddwd %ymm3, %ymm5, %ymm3
; CHECK-NEXT: vpadd %ymm1, %ymm3, %ymm1
; CHECK-NEXT: vpmovsxbw 16(%rsi,%rcx), %ymm3
; CHECK-NEXT: vpmaddwd %ymm4, %ymm3, %ymm3
; CHECK-NEXT: vpadd %ymm2, %ymm3, %ymm2
; CHECK-NEXT: addq $32, %rcx
; CHECK-NEXT: cmpq %rcx, %rax
; CHECK-NEXT: jne .LBB8_1
; CHECK-NEXT: # %bb.2: # %middle.block
; CHECK-NEXT: vpadd %ymm0, %ymm1, %ymm1
; CHECK-NEXT: vpadd %ymm0, %ymm2, %ymm0
; CHECK-NEXT: vpadd %ymm0, %ymm1, %ymm0
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm1
; CHECK-NEXT: vpadd %ymm1, %ymm0, %ymm0
; CHECK-NEXT: vpshufd {.*#+} xmm1 = xmm0[2,3,0,1]
; CHECK-NEXT: vpadd %ymm1, %ymm0, %ymm0
; CHECK-NEXT: vpshufd {.*#+} xmm1 = xmm0[1,1,2,3]
; CHECK-NEXT: vpadd %xmm1, %xmm0, %xmm0
; CHECK-NEXT: vmovd %xmm0, %eax
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
entry:
%3 = zext i32 %2 to i64
br label %vector.body

vector.body:
%index = phi i64 [%index.next, %vector.body], [0, %entry]
%vec.phi = phi <32 x i32> [%11, %vector.body], [zeroinitializer, %entry]
%4 = getelementptr inbounds i8, i8* %0, i64 %index
%5 = bitcast i8* %4 to <32 x i8>*
%wide.load = load <32 x i8>, <32 x i8>* %5, align 1
%6 = sext <32 x i8> %wide.load to <32 x i32>
%7 = getelementptr inbounds i8, i8* %1, i64 %index
%8 = bitcast i8* %7 to <32 x i8>*
%wide.load14 = load <32 x i8>, <32 x i8>* %8, align 1
%9 = sext <32 x i8> %wide.load14 to <32 x i32>
%10 = mul nsw <32 x i32> %9, %6
%11 = add nsw <32 x i32> %10, %vec.phi

```

```

%index.next = add i64 %index, 32
%12 = icmp eq i64 %index.next, %3
br i1 %12, label %middle.block, label %vector.body

```

middle.block:

```

%rdx.shuf1 = shufflevector <32 x i32> %11, <32 x i32> undef, <32 x i32> <i32 16, i32 17, i32 18, i32 19, i32 20,
i32 21, i32 22, i32 23, i32 24, i32 25, i32 26, i32 27, i32 28, i32 29, i32 30, i32 31, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef>
%bin.rdx1 = add <32 x i32> %11, %rdx.shuf1
%rdx.shuf = shufflevector <32 x i32> %bin.rdx1, <32 x i32> undef, <32 x i32> <i32 8, i32 9, i32 10, i32 11, i32
12, i32 13, i32 14, i32 15, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx = add <32 x i32> %bin.rdx1, %rdx.shuf
%rdx.shuf15 = shufflevector <32 x i32> %bin.rdx, <32 x i32> undef, <32 x i32> <i32 4, i32 5, i32 6, i32 7, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx32 = add <32 x i32> %bin.rdx, %rdx.shuf15
%rdx.shuf17 = shufflevector <32 x i32> %bin.rdx32, <32 x i32> undef, <32 x i32> <i32 2, i32 3, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx18 = add <32 x i32> %bin.rdx32, %rdx.shuf17
%rdx.shuf19 = shufflevector <32 x i32> %bin.rdx18, <32 x i32> undef, <32 x i32> <i32 1, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx20 = add <32 x i32> %bin.rdx18, %rdx.shuf19
%13 = extractelement <32 x i32> %bin.rdx20, i32 0
ret i32 %13
}

```

```

define i32 @_Z9test_charPcS_i_512(i8* nocapture readonly, i8* nocapture readonly, i32) "min-legal-vector-
width"="512" {

```

```

; CHECK-LABEL: _Z9test_charPcS_i_512:
; CHECK: # %bb.0: # %entry
; CHECK-NEXT: movl %edx, %eax
; CHECK-NEXT: vpxor %xmm0, %xmm0, %xmm0
; CHECK-NEXT: xorl %ecx, %ecx
; CHECK-NEXT: vpxor %xmm1, %xmm1, %xmm1
; CHECK-NEXT: .p2align 4, 0x90
; CHECK-NEXT: .LBB9_1: # %vector.body
; CHECK-NEXT: # =>This Inner Loop Header: Depth=1
; CHECK-NEXT: vpmovsxbw (%rdi,%rcx), %zmm2
; CHECK-NEXT: vpmovsxbw (%rsi,%rcx), %zmm3
; CHECK-NEXT: vpmaddwd %zmm2, %zmm3, %zmm2

```

```

; CHECK-NEXT: vpaddd %zmm1, %zmm2, %zmm1
; CHECK-NEXT: addq $32, %rcx
; CHECK-NEXT: cmpq %rcx, %rax
; CHECK-NEXT: jne .LBB9_1
; CHECK-NEXT: # %bb.2: # %middle.block
; CHECK-NEXT: vpaddd %zmm0, %zmm1, %zmm0
; CHECK-NEXT: vextracti64x4 $1, %zmm0, %ymm1
; CHECK-NEXT: vpaddd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm1
; CHECK-NEXT: vpaddd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vpshufd { {. *#+ } } xmm1 = xmm0[2,3,0,1]
; CHECK-NEXT: vpaddd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vpshufd { {. *#+ } } xmm1 = xmm0[1,1,2,3]
; CHECK-NEXT: vpaddd %xmm1, %xmm0, %xmm0
; CHECK-NEXT: vmovd %xmm0, %eax
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq

```

entry:

```

%3 = zext i32 %2 to i64
br label %vector.body

```

vector.body:

```

%index = phi i64 [%index.next, %vector.body], [0, %entry]
%vec.phi = phi <32 x i32> [%11, %vector.body], [zeroinitializer, %entry]
%4 = getelementptr inbounds i8, i8* %0, i64 %index
%5 = bitcast i8* %4 to <32 x i8>*
%wide.load = load <32 x i8>, <32 x i8>* %5, align 1
%6 = sext <32 x i8> %wide.load to <32 x i32>
%7 = getelementptr inbounds i8, i8* %1, i64 %index
%8 = bitcast i8* %7 to <32 x i8>*
%wide.load14 = load <32 x i8>, <32 x i8>* %8, align 1
%9 = sext <32 x i8> %wide.load14 to <32 x i32>
%10 = mul nsw <32 x i32> %9, %6
%11 = add nsw <32 x i32> %10, %vec.phi
%index.next = add i64 %index, 32
%12 = icmp eq i64 %index.next, %3
br i1 %12, label %middle.block, label %vector.body

```

middle.block:

```

%rdx.shuf1 = shufflevector <32 x i32> %11, <32 x i32> undef, <32 x i32> <i32 16, i32 17, i32 18, i32 19, i32 20,
i32 21, i32 22, i32 23, i32 24, i32 25, i32 26, i32 27, i32 28, i32 29, i32 30, i32 31, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef>
%bin.rdx1 = add <32 x i32> %11, %rdx.shuf1
%rdx.shuf = shufflevector <32 x i32> %bin.rdx1, <32 x i32> undef, <32 x i32> <i32 8, i32 9, i32 10, i32 11, i32
12, i32 13, i32 14, i32 15, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>

```



```

%bin.rdx = add <32 x i32> %bin.rdx1, %rdx.shuf
%rdx.shuf15 = shufflevector <32 x i32> %bin.rdx, <32 x i32> undef, <32 x i32> <i32 4, i32 5, i32 6, i32 7, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx32 = add <32 x i32> %bin.rdx, %rdx.shuf15
%rdx.shuf17 = shufflevector <32 x i32> %bin.rdx32, <32 x i32> undef, <32 x i32> <i32 2, i32 3, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx18 = add <32 x i32> %bin.rdx32, %rdx.shuf17
%rdx.shuf19 = shufflevector <32 x i32> %bin.rdx18, <32 x i32> undef, <32 x i32> <i32 1, i32 undef, i32 undef,
i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx20 = add <32 x i32> %bin.rdx18, %rdx.shuf19
%13 = extractelement <32 x i32> %bin.rdx20, i32 0
ret i32 %13
}

```

```

@a = global [1024 x i8] zeroinitializer, align 16
@b = global [1024 x i8] zeroinitializer, align 16

```

```

define i32 @sad_16i8_256() "min-legal-vector-width"="256" {
; CHECK-LABEL: sad_16i8_256:
; CHECK: # %bb.0: # %entry
; CHECK-NEXT: vpxor %xmm0, %xmm0, %xmm0
; CHECK-NEXT: movq $-1024, %rax # imm = 0xFC00
; CHECK-NEXT: vpxor %xmm1, %xmm1, %xmm1
; CHECK-NEXT: .p2align 4, 0x90
; CHECK-NEXT: .LBB10_1: # %vector.body
; CHECK-NEXT: # =>This Inner Loop Header: Depth=1
; CHECK-NEXT: vmovdqu a+1024(%rax), %xmm2
; CHECK-NEXT: vpsadbw b+1024(%rax), %xmm2, %xmm2
; CHECK-NEXT: vpaddd %ymm1, %ymm2, %ymm1
; CHECK-NEXT: addq $4, %rax
; CHECK-NEXT: jne .LBB10_1
; CHECK-NEXT: # %bb.2: # %middle.block
; CHECK-NEXT: vpaddd %ymm0, %ymm1, %ymm0
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm1
; CHECK-NEXT: vpaddd %ymm1, %ymm0, %ymm0
; CHECK-NEXT: vpsshufd {{.*#+}} xmm1 = xmm0[2,3,0,1]
; CHECK-NEXT: vpaddd %ymm1, %ymm0, %ymm0
; CHECK-NEXT: vpsshufd {{.*#+}} xmm1 = xmm0[1,1,2,3]
; CHECK-NEXT: vpaddd %xmm1, %xmm0, %xmm0
; CHECK-NEXT: vmovd %xmm0, %eax
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq

```

entry:

br label %vector.body

vector.body:

%index = phi i64 [ 0, %entry ], [ %index.next, %vector.body ]

%vec.phi = phi <16 x i32> [ zeroinitializer, %entry ], [ %10, %vector.body ]

%0 = getelementptr inbounds [1024 x i8], [1024 x i8]\* @a, i64 0, i64 %index

%1 = bitcast i8\* %0 to <16 x i8>\*

%wide.load = load <16 x i8>, <16 x i8>\* %1, align 4

%2 = zext <16 x i8> %wide.load to <16 x i32>

%3 = getelementptr inbounds [1024 x i8], [1024 x i8]\* @b, i64 0, i64 %index

%4 = bitcast i8\* %3 to <16 x i8>\*

%wide.load1 = load <16 x i8>, <16 x i8>\* %4, align 4

%5 = zext <16 x i8> %wide.load1 to <16 x i32>

%6 = sub nsw <16 x i32> %2, %5

%7 = icmp sgt <16 x i32> %6, <i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1>

%8 = sub nsw <16 x i32> zeroinitializer, %6

%9 = select <16 x i1> %7, <16 x i32> %6, <16 x i32> %8

%10 = add nsw <16 x i32> %9, %vec.phi

%index.next = add i64 %index, 4

%11 = icmp eq i64 %index.next, 1024

br i1 %11, label %middle.block, label %vector.body

middle.block:

%.lcssa = phi <16 x i32> [ %10, %vector.body ]

%rdx.shuf = shufflevector <16 x i32> %.lcssa, <16 x i32> undef, <16 x i32> <i32 8, i32 9, i32 10, i32 11, i32 12, i32 13, i32 14, i32 15, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>

%bin.rdx = add <16 x i32> %.lcssa, %rdx.shuf

%rdx.shuf2 = shufflevector <16 x i32> %bin.rdx, <16 x i32> undef, <16 x i32> <i32 4, i32 5, i32 6, i32 7, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>

%bin.rdx2 = add <16 x i32> %bin.rdx, %rdx.shuf2

%rdx.shuf3 = shufflevector <16 x i32> %bin.rdx2, <16 x i32> undef, <16 x i32> <i32 2, i32 3, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>

%bin.rdx3 = add <16 x i32> %bin.rdx2, %rdx.shuf3

%rdx.shuf4 = shufflevector <16 x i32> %bin.rdx3, <16 x i32> undef, <16 x i32> <i32 1, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>

%bin.rdx4 = add <16 x i32> %bin.rdx3, %rdx.shuf4

%12 = extractelement <16 x i32> %bin.rdx4, i32 0

ret i32 %12

}

define i32 @sad\_16i8\_512() "min-legal-vector-width"="512" {

; CHECK-LABEL: sad\_16i8\_512:

; CHECK: # %bb.0: # %entry

```

; CHECK-NEXT: vpxor %xmm0, %xmm0, %xmm0
; CHECK-NEXT: movq $-1024, %rax # imm = 0xFC00
; CHECK-NEXT: .p2align 4, 0x90
; CHECK-NEXT: .LBB11_1: # %vector.body
; CHECK-NEXT: # =>This Inner Loop Header: Depth=1
; CHECK-NEXT: vmovdqu a+1024(%rax), %xmm1
; CHECK-NEXT: vpsadbw b+1024(%rax), %xmm1, %xmm1
; CHECK-NEXT: vpadd %zmm0, %zmm1, %zmm0
; CHECK-NEXT: addq $4, %rax
; CHECK-NEXT: jne .LBB11_1
; CHECK-NEXT: # %bb.2: # %middle.block
; CHECK-NEXT: vextracti64x4 $1, %zmm0, %ymm1
; CHECK-NEXT: vpadd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm1
; CHECK-NEXT: vpadd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vpsqufd { {.##+} } xmm1 = xmm0[2,3,0,1]
; CHECK-NEXT: vpadd %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vpsqufd { {.##+} } xmm1 = xmm0[1,1,2,3]
; CHECK-NEXT: vpadd %xmm1, %xmm0, %xmm0
; CHECK-NEXT: vmovd %xmm0, %eax
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq

```

entry:

```
br label %vector.body
```

vector.body:

```
%index = phi i64 [0, %entry], [%index.next, %vector.body]
```

```
%vec.phi = phi <16 x i32> [zeroinitializer, %entry], [%10, %vector.body]
```

```
%0 = getelementptr inbounds [1024 x i8], [1024 x i8]* @a, i64 0, i64 %index
```

```
%1 = bitcast i8* %0 to <16 x i8>*
```

```
%wide.load = load <16 x i8>, <16 x i8>* %1, align 4
```

```
%2 = zext <16 x i8> %wide.load to <16 x i32>
```

```
%3 = getelementptr inbounds [1024 x i8], [1024 x i8]* @b, i64 0, i64 %index
```

```
%4 = bitcast i8* %3 to <16 x i8>*
```

```
%wide.load1 = load <16 x i8>, <16 x i8>* %4, align 4
```

```
%5 = zext <16 x i8> %wide.load1 to <16 x i32>
```

```
%6 = sub nsw <16 x i32> %2, %5
```

```
%7 = icmp sgt <16 x i32> %6, <i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1, i32 -1>
```

```
%8 = sub nsw <16 x i32> zeroinitializer, %6
```

```
%9 = select <16 x i1> %7, <16 x i32> %6, <16 x i32> %8
```

```
%10 = add nsw <16 x i32> %9, %vec.phi
```

```
%index.next = add i64 %index, 4
```

```
%11 = icmp eq i64 %index.next, 1024
```

```
br i1 %11, label %middle.block, label %vector.body
```

middle.block:

```
%.lcssa = phi <16 x i32> [%10, %vector.body]
```

```

%rdx.shuf = shufflevector <16 x i32> %.lcssa, <16 x i32> undef, <16 x i32> <i32 8, i32 9, i32 10, i32 11, i32 12,
i32 13, i32 14, i32 15, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef>
%bin.rdx = add <16 x i32> %.lcssa, %rdx.shuf
%rdx.shuf2 = shufflevector <16 x i32> %bin.rdx, <16 x i32> undef, <16 x i32> <i32 4, i32 5, i32 6, i32 7, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef>
%bin.rdx2 = add <16 x i32> %bin.rdx, %rdx.shuf2
%rdx.shuf3 = shufflevector <16 x i32> %bin.rdx2, <16 x i32> undef, <16 x i32> <i32 2, i32 3, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef>
%bin.rdx3 = add <16 x i32> %bin.rdx2, %rdx.shuf3
%rdx.shuf4 = shufflevector <16 x i32> %bin.rdx3, <16 x i32> undef, <16 x i32> <i32 1, i32 undef, i32 undef, i32
undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef, i32 undef,
i32 undef, i32 undef>
%bin.rdx4 = add <16 x i32> %bin.rdx3, %rdx.shuf4
%12 = extractelement <16 x i32> %bin.rdx4, i32 0
ret i32 %12
}

```

```

define void @sbto16f32_256(<16 x i16> %a, <16 x float>* %res) "min-legal-vector-width"="256" {
; CHECK-LABEL: sbto16f32_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: kshiftrw $8, %k0, %k1
; CHECK-NEXT: vpmovm2d %k1, %ymm0
; CHECK-NEXT: vcvt dq2ps %ymm0, %ymm0
; CHECK-NEXT: vpmovm2d %k0, %ymm1
; CHECK-NEXT: vcvt dq2ps %ymm1, %ymm1
; CHECK-NEXT: vmovaps %ymm1, (%rdi)
; CHECK-NEXT: vmovaps %ymm0, 32(%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = sitofp <16 x i1> %mask to <16 x float>
store <16 x float> %1, <16 x float>* %res
ret void
}

```

```

define void @sbto16f32_512(<16 x i16> %a, <16 x float>* %res) "min-legal-vector-width"="512" {
; CHECK-LABEL: sbto16f32_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: vpmovm2d %k0, %zmm0
; CHECK-NEXT: vcvt dq2ps %zmm0, %zmm0
; CHECK-NEXT: vmovaps %zmm0, (%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer

```

```

%1 = sitofp <16 x i1> %mask to <16 x float>
store <16 x float> %1, <16 x float>* %res
ret void
}

define void @sbto16f64_256(<16 x i16> %a, <16 x double>* %res) "min-legal-vector-width"="256" {
; CHECK-LABEL: sbto16f64_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: kshiftrw $8, %k0, %k1
; CHECK-NEXT: vpmovm2d %k1, %ymm0
; CHECK-NEXT: vcvt dq2pd %xmm0, %ymm1
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm0
; CHECK-NEXT: vcvt dq2pd %xmm0, %ymm0
; CHECK-NEXT: vpmovm2d %k0, %ymm2
; CHECK-NEXT: vcvt dq2pd %xmm2, %ymm3
; CHECK-NEXT: vextracti128 $1, %ymm2, %xmm2
; CHECK-NEXT: vcvt dq2pd %xmm2, %ymm2
; CHECK-NEXT: vmovaps %ymm2, 32(%rdi)
; CHECK-NEXT: vmovaps %ymm3, (%rdi)
; CHECK-NEXT: vmovaps %ymm0, 96(%rdi)
; CHECK-NEXT: vmovaps %ymm1, 64(%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = sitofp <16 x i1> %mask to <16 x double>
store <16 x double> %1, <16 x double>* %res
ret void
}

define void @sbto16f64_512(<16 x i16> %a, <16 x double>* %res) "min-legal-vector-width"="512" {
; CHECK-LABEL: sbto16f64_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: vpmovm2d %k0, %zmm0
; CHECK-NEXT: vcvt dq2pd %ymm0, %zmm1
; CHECK-NEXT: vextracti64x4 $1, %zmm0, %ymm0
; CHECK-NEXT: vcvt dq2pd %ymm0, %zmm0
; CHECK-NEXT: vmovaps %zmm0, 64(%rdi)
; CHECK-NEXT: vmovaps %zmm1, (%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = sitofp <16 x i1> %mask to <16 x double>
store <16 x double> %1, <16 x double>* %res
ret void
}

```

```

define void @ubto16f32_256(<16 x i16> %a, <16 x float>* %res) "min-legal-vector-width"="256" {
; CHECK-LABEL: ubto16f32_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: kshiftrw $8, %k0, %k1
; CHECK-NEXT: vpmovm2d %k1, %ymm0
; CHECK-NEXT: vpsrld $31, %ymm0, %ymm0
; CHECK-NEXT: vcvt dq2ps %ymm0, %ymm0
; CHECK-NEXT: vpmovm2d %k0, %ymm1
; CHECK-NEXT: vpsrld $31, %ymm1, %ymm1
; CHECK-NEXT: vcvt dq2ps %ymm1, %ymm1
; CHECK-NEXT: vmovaps %ymm1, (%rdi)
; CHECK-NEXT: vmovaps %ymm0, 32(%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = uitofp <16 x i1> %mask to <16 x float>
store <16 x float> %1, <16 x float>* %res
ret void
}

```

```

define void @ubto16f32_512(<16 x i16> %a, <16 x float>* %res) "min-legal-vector-width"="512" {
; CHECK-LABEL: ubto16f32_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: vpmovm2d %k0, %zmm0
; CHECK-NEXT: vpsrld $31, %zmm0, %zmm0
; CHECK-NEXT: vcvt dq2ps %zmm0, %zmm0
; CHECK-NEXT: vmovaps %zmm0, (%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = uitofp <16 x i1> %mask to <16 x float>
store <16 x float> %1, <16 x float>* %res
ret void
}

```

```

define void @ubto16f64_256(<16 x i16> %a, <16 x double>* %res) "min-legal-vector-width"="256" {
; CHECK-LABEL: ubto16f64_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: kshiftrw $8, %k0, %k1
; CHECK-NEXT: vpmovm2d %k1, %ymm0
; CHECK-NEXT: vpsrld $31, %ymm0, %ymm0
; CHECK-NEXT: vcvt dq2pd %xmm0, %ymm1
; CHECK-NEXT: vextracti128 $1, %ymm0, %xmm0
; CHECK-NEXT: vcvt dq2pd %xmm0, %ymm0
; CHECK-NEXT: vpmovm2d %k0, %ymm2

```

```

; CHECK-NEXT: vpsrld $31, %ymm2, %ymm2
; CHECK-NEXT: vcvt dq2pd %xmm2, %ymm3
; CHECK-NEXT: vextracti128 $1, %ymm2, %xmm2
; CHECK-NEXT: vcvt dq2pd %xmm2, %ymm2
; CHECK-NEXT: vmovaps %ymm2, 32(%rdi)
; CHECK-NEXT: vmovaps %ymm3, (%rdi)
; CHECK-NEXT: vmovaps %ymm0, 96(%rdi)
; CHECK-NEXT: vmovaps %ymm1, 64(%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = uitofp <16 x i1> %mask to <16 x double>
store <16 x double> %1, <16 x double>* %res
ret void
}

```

```

define void @ubto16f64_512(<16 x i16> %a, <16 x double>* %res) "min-legal-vector-width"="512" {
; CHECK-LABEL: ubto16f64_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vpmovw2m %ymm0, %k0
; CHECK-NEXT: vpmovm2d %k0, %zmm0
; CHECK-NEXT: vpsrld $31, %zmm0, %zmm0
; CHECK-NEXT: vcvt dq2pd %ymm0, %zmm1
; CHECK-NEXT: vextracti64x4 $1, %zmm0, %ymm0
; CHECK-NEXT: vcvt dq2pd %ymm0, %zmm0
; CHECK-NEXT: vmovaps %zmm0, 64(%rdi)
; CHECK-NEXT: vmovaps %zmm1, (%rdi)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%mask = icmp slt <16 x i16> %a, zeroinitializer
%1 = uitofp <16 x i1> %mask to <16 x double>
store <16 x double> %1, <16 x double>* %res
ret void
}

```

```

define <16 x i16> @test_16f32toub_256(<16 x float>* %ptr, <16 x i16> %passthru) "min-legal-vector-
width"="256" {
; CHECK-LABEL: test_16f32toub_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vcvt tps2dq (%rdi), %ymm1
; CHECK-NEXT: vpslld $31, %ymm1, %ymm1
; CHECK-NEXT: vpmovd2m %ymm1, %k0
; CHECK-NEXT: vcvt tps2dq 32(%rdi), %ymm1
; CHECK-NEXT: vpslld $31, %ymm1, %ymm1
; CHECK-NEXT: vpmovd2m %ymm1, %k1
; CHECK-NEXT: kunpckbw %k0, %k1, %k1
; CHECK-NEXT: vmovdqu16 %ymm0, %ymm0 {%k1} {z}
; CHECK-NEXT: retq

```

```

%a = load <16 x float>, <16 x float>* %ptr
%mask = fptoui <16 x float> %a to <16 x i1>
%select = select <16 x i1> %mask, <16 x i16> %passthru, <16 x i16> zeroinitializer
ret <16 x i16> %select
}

```

```

define <16 x i16> @test_16f32toub_512(<16 x float>* %ptr, <16 x i16> %passthru) "min-legal-vector-
width"="512" {
; CHECK-LABEL: test_16f32toub_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vcvttps2dq (%rdi), %zmm1
; CHECK-NEXT: vpslld $31, %zmm1, %zmm1
; CHECK-NEXT: vpmovd2m %zmm1, %k1
; CHECK-NEXT: vmovdqu16 %ymm0, %ymm0 {%k1} {z}
; CHECK-NEXT: retq
%a = load <16 x float>, <16 x float>* %ptr
%mask = fptoui <16 x float> %a to <16 x i1>
%select = select <16 x i1> %mask, <16 x i16> %passthru, <16 x i16> zeroinitializer
ret <16 x i16> %select
}

```

```

define <16 x i16> @test_16f32tosb_256(<16 x float>* %ptr, <16 x i16> %passthru) "min-legal-vector-
width"="256" {
; CHECK-LABEL: test_16f32tosb_256:
; CHECK: # %bb.0:
; CHECK-NEXT: vcvttps2dq (%rdi), %ymm1
; CHECK-NEXT: vpmovd2m %ymm1, %k0
; CHECK-NEXT: vcvttps2dq 32(%rdi), %ymm1
; CHECK-NEXT: vpmovd2m %ymm1, %k1
; CHECK-NEXT: kunpckbw %k0, %k1, %k1
; CHECK-NEXT: vmovdqu16 %ymm0, %ymm0 {%k1} {z}
; CHECK-NEXT: retq
%a = load <16 x float>, <16 x float>* %ptr
%mask = fptosi <16 x float> %a to <16 x i1>
%select = select <16 x i1> %mask, <16 x i16> %passthru, <16 x i16> zeroinitializer
ret <16 x i16> %select
}

```

```

define <16 x i16> @test_16f32tosb_512(<16 x float>* %ptr, <16 x i16> %passthru) "min-legal-vector-
width"="512" {
; CHECK-LABEL: test_16f32tosb_512:
; CHECK: # %bb.0:
; CHECK-NEXT: vcvttps2dq (%rdi), %zmm1
; CHECK-NEXT: vpmovd2m %zmm1, %k1
; CHECK-NEXT: vmovdqu16 %ymm0, %ymm0 {%k1} {z}
; CHECK-NEXT: retq
%a = load <16 x float>, <16 x float>* %ptr
%mask = fptosi <16 x float> %a to <16 x i1>

```



```

%select = select <16 x i1> %mask, <16 x i16> %passthru, <16 x i16> zeroinitializer
ret <16 x i16> %select
}

```

```

define void @mul256(<64 x i8>* %a, <64 x i8>* %b, <64 x i8>* %c) "min-legal-vector-width"="256" {
; CHECK-LABEL: mul256:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa (%rdi), %ymm0
; CHECK-NEXT: vmovdqa 32(%rdi), %ymm1
; CHECK-NEXT: vmovdqa (%rsi), %ymm2
; CHECK-NEXT: vmovdqa 32(%rsi), %ymm3
; CHECK-NEXT: vpunpckhbw {{.*#+}} ymm4 =
ymm2[8],ymm0[8],ymm2[9],ymm0[9],ymm2[10],ymm0[10],ymm2[11],ymm0[11],ymm2[12],ymm0[12],ymm2[13
],ymm0[13],ymm2[14],ymm0[14],ymm2[15],ymm0[15],ymm2[24],ymm0[24],ymm2[25],ymm0[25],ymm2[26],ymm
m0[26],ymm2[27],ymm0[27],ymm2[28],ymm0[28],ymm2[29],ymm0[29],ymm2[30],ymm0[30],ymm2[31],ymm0[
31]
; CHECK-NEXT: vpunpckhbw {{.*#+}} ymm5 =
ymm0[8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31]
; CHECK-NEXT: vpmullw %ymm4, %ymm5, %ymm4
; CHECK-NEXT: vmovdqa {{.*#+}} ymm5 =
[255,255,255,255,255,255,255,255,255,255,255,255,255,255,255]
; CHECK-NEXT: vpand %ymm5, %ymm4, %ymm4
; CHECK-NEXT: vpunpcklbw {{.*#+}} ymm2 =
ymm2[0],ymm0[0],ymm2[1],ymm0[1],ymm2[2],ymm0[2],ymm2[3],ymm0[3],ymm2[4],ymm0[4],ymm2[5],ymm0[
5],ymm2[6],ymm0[6],ymm2[7],ymm0[7],ymm2[16],ymm0[16],ymm2[17],ymm0[17],ymm2[18],ymm0[18],ymm2[
19],ymm0[19],ymm2[20],ymm0[20],ymm2[21],ymm0[21],ymm2[22],ymm0[22],ymm2[23],ymm0[23]
; CHECK-NEXT: vpunpcklbw {{.*#+}} ymm0 =
ymm0[0,0,1,1,2,2,3,3,4,4,5,5,6,6,7,7,16,16,17,17,18,18,19,19,20,20,21,21,22,22,23,23]
; CHECK-NEXT: vpmullw %ymm2, %ymm0, %ymm0
; CHECK-NEXT: vpand %ymm5, %ymm0, %ymm0
; CHECK-NEXT: vpackuswb %ymm4, %ymm0, %ymm0
; CHECK-NEXT: vpunpckhbw {{.*#+}} ymm2 =
ymm3[8],ymm0[8],ymm3[9],ymm0[9],ymm3[10],ymm0[10],ymm3[11],ymm0[11],ymm3[12],ymm0[12],ymm3[13
],ymm0[13],ymm3[14],ymm0[14],ymm3[15],ymm0[15],ymm3[24],ymm0[24],ymm3[25],ymm0[25],ymm3[26],ymm
m0[26],ymm3[27],ymm0[27],ymm3[28],ymm0[28],ymm3[29],ymm0[29],ymm3[30],ymm0[30],ymm3[31],ymm0[
31]
; CHECK-NEXT: vpunpckhbw {{.*#+}} ymm4 =
ymm1[8],ymm0[8],ymm1[9],ymm0[9],ymm1[10],ymm0[10],ymm1[11],ymm0[11],ymm1[12],ymm0[12],ymm1[13
],ymm0[13],ymm1[14],ymm0[14],ymm1[15],ymm0[15],ymm1[24],ymm0[24],ymm1[25],ymm0[25],ymm1[26],ymm
m0[26],ymm1[27],ymm0[27],ymm1[28],ymm0[28],ymm1[29],ymm0[29],ymm1[30],ymm0[30],ymm1[31],ymm0[
31]
; CHECK-NEXT: vpmullw %ymm2, %ymm4, %ymm2
; CHECK-NEXT: vpand %ymm5, %ymm2, %ymm2
; CHECK-NEXT: vpunpcklbw {{.*#+}} ymm3 =
ymm3[0],ymm0[0],ymm3[1],ymm0[1],ymm3[2],ymm0[2],ymm3[3],ymm0[3],ymm3[4],ymm0[4],ymm3[5],ymm0[
5],ymm3[6],ymm0[6],ymm3[7],ymm0[7],ymm3[16],ymm0[16],ymm3[17],ymm0[17],ymm3[18],ymm0[18],ymm3[
19],ymm0[19],ymm3[20],ymm0[20],ymm3[21],ymm0[21],ymm3[22],ymm0[22],ymm3[23],ymm0[23]
; CHECK-NEXT: vpunpcklbw {{.*#+}} ymm1 =

```

```

ymm1[0],ymm0[0],ymm1[1],ymm0[1],ymm1[2],ymm0[2],ymm1[3],ymm0[3],ymm1[4],ymm0[4],ymm1[5],ymm0[
5],ymm1[6],ymm0[6],ymm1[7],ymm0[7],ymm1[16],ymm0[16],ymm1[17],ymm0[17],ymm1[18],ymm0[18],ymm1[
19],ymm0[19],ymm1[20],ymm0[20],ymm1[21],ymm0[21],ymm1[22],ymm0[22],ymm1[23],ymm0[23]
; CHECK-NEXT: vpmullw %ymm3, %ymm1, %ymm1
; CHECK-NEXT: vpand %ymm5, %ymm1, %ymm1
; CHECK-NEXT: vpackuswb %ymm2, %ymm1, %ymm1
; CHECK-NEXT: vmovdqa %ymm1, 32(%rdx)
; CHECK-NEXT: vmovdqa %ymm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%d = load <64 x i8>, <64 x i8>* %a
%e = load <64 x i8>, <64 x i8>* %b
%f = mul <64 x i8> %d, %e
store <64 x i8> %f, <64 x i8>* %c
ret void
}

```

```

define void @mul512(<64 x i8>* %a, <64 x i8>* %b, <64 x i8>* %c) "min-legal-vector-width"="512" {
; CHECK-LABEL: mul512:
; CHECK: # %bb.0:
; CHECK-NEXT: vmovdqa64 (%rdi), %zmm0
; CHECK-NEXT: vmovdqa64 (%rsi), %zmm1
; CHECK-NEXT: vpunpckhbw {{.*#+}} %zmm2 =
zmm1[8],zmm0[8],zmm1[9],zmm0[9],zmm1[10],zmm0[10],zmm1[11],zmm0[11],zmm1[12],zmm0[12],zmm1[13],
zmm0[13],zmm1[14],zmm0[14],zmm1[15],zmm0[15],zmm1[24],zmm0[24],zmm1[25],zmm0[25],zmm1[26],zmm0
[26],zmm1[27],zmm0[27],zmm1[28],zmm0[28],zmm1[29],zmm0[29],zmm1[30],zmm0[30],zmm1[31],zmm0[31],z
zmm1[40],zmm0[40],zmm1[41],zmm0[41],zmm1[42],zmm0[42],zmm1[43],zmm0[43],zmm1[44],zmm0[44],zmm1[
45],zmm0[45],zmm1[46],zmm0[46],zmm1[47],zmm0[47],zmm1[56],zmm0[56],zmm1[57],zmm0[57],zmm1[58],z
zmm0[58],zmm1[59],zmm0[59],zmm1[60],zmm0[60],zmm1[61],zmm0[61],zmm1[62],zmm0[62],zmm1[63],zmm0[
63]
; CHECK-NEXT: vpunpckhbw {{.*#+}} %zmm3 =
zmm0[8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,40,40,41,41,4
2,42,43,43,44,44,45,45,46,46,47,47,56,56,57,57,58,58,59,59,60,60,61,61,62,62,63,63]
; CHECK-NEXT: vpmullw %zmm2, %zmm3, %zmm2
; CHECK-NEXT: vmovdqa64 {{.*#+}} %zmm3 =
[255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,255,2
55,255,255,255,255,255]
; CHECK-NEXT: vpandq %zmm3, %zmm2, %zmm2
; CHECK-NEXT: vpunpcklbw {{.*#+}} %zmm1 =
zmm1[0],zmm0[0],zmm1[1],zmm0[1],zmm1[2],zmm0[2],zmm1[3],zmm0[3],zmm1[4],zmm0[4],zmm1[5],zmm0[5]
,zmm1[6],zmm0[6],zmm1[7],zmm0[7],zmm1[16],zmm0[16],zmm1[17],zmm0[17],zmm1[18],zmm0[18],zmm1[19]
,zmm0[19],zmm1[20],zmm0[20],zmm1[21],zmm0[21],zmm1[22],zmm0[22],zmm1[23],zmm0[23],zmm1[32],zmm
0[32],zmm1[33],zmm0[33],zmm1[34],zmm0[34],zmm1[35],zmm0[35],zmm1[36],zmm0[36],zmm1[37],zmm0[37],
zmm1[38],zmm0[38],zmm1[39],zmm0[39],zmm1[48],zmm0[48],zmm1[49],zmm0[49],zmm1[50],zmm0[50],zmm1
[51],zmm0[51],zmm1[52],zmm0[52],zmm1[53],zmm0[53],zmm1[54],zmm0[54],zmm1[55],zmm0[55]
; CHECK-NEXT: vpunpcklbw {{.*#+}} %zmm0 =
zmm0[0,0,1,1,2,2,3,3,4,4,5,5,6,6,7,7,16,16,17,17,18,18,19,19,20,20,21,21,22,22,23,23,32,32,33,33,34,34,35,35,36,3
6,37,37,38,38,39,39,48,48,49,49,50,50,51,51,52,52,53,53,54,54,55,55]

```

```

; CHECK-NEXT: vpmullw %zmm1, %zmm0, %zmm0
; CHECK-NEXT: vpandq %zmm3, %zmm0, %zmm0
; CHECK-NEXT: vpackuswb %zmm2, %zmm0, %zmm0
; CHECK-NEXT: vmovdqa64 %zmm0, (%rdx)
; CHECK-NEXT: vzeroupper
; CHECK-NEXT: retq
%d = load <64 x i8>, <64 x i8>* %a
%e = load <64 x i8>, <64 x i8>* %b
%f = mul <64 x i8> %d, %e
store <64 x i8> %f, <64 x i8>* %c
ret void
}

```

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Program	Directory
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<none yet>

```
; NOTE: Assertions have been autogenerated by utils/update_analyze_test_checks.py
```

```
; RUN: opt < %s -cost-model -analyze -mtriple=x86_64-apple-macosx10.8.0 -mattr=+avx2 | FileCheck %s --check-prefixes=CHECK,VEC256,AVX
```

```
; RUN: opt < %s -cost-model -analyze -mtriple=x86_64-apple-macosx10.8.0 -mattr=+avx512vl,+avx512bw,+avx512dq,+prefer-256-bit | FileCheck %s --check-prefixes=CHECK,VEC256,SKX256
```

```
; RUN: opt < %s -cost-model -analyze -mtriple=x86_64-apple-macosx10.8.0 -mattr=+avx512vl,+avx512bw,+avx512dq,-prefer-256-bit | FileCheck %s --check-prefixes=CHECK,VEC512
```

```
define void @zext256() "min-legal-vector-width"="256" {
```

```
; VEC256-LABEL: 'zext256'
```

```

; VEC256-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %A = zext <8 x i16> undef to <8 x
i64>
; VEC256-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %B = zext <8 x i32> undef to <8 x
i64>
; VEC256-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %C = zext <16 x i8> undef to <16 x
i32>
; VEC256-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %D = zext <16 x i16> undef to <16 x
i32>
; VEC256-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %E = zext <32 x i8> undef to <32 x
i16>
; VEC256-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; VEC512-LABEL: 'zext256'
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %A = zext <8 x i16> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = zext <8 x i32> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = zext <16 x i8> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = zext <16 x i16> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = zext <32 x i8> undef to <32 x
i16>
; VEC512-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
%A = zext <8 x i16> undef to <8 x i64>
%B = zext <8 x i32> undef to <8 x i64>
%C = zext <16 x i8> undef to <16 x i32>
%D = zext <16 x i16> undef to <16 x i32>
%E = zext <32 x i8> undef to <32 x i16>
ret void
}

define void @zext512() "min-legal-vector-width"="512" {
; AVX-LABEL: 'zext512'
; AVX-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %A = zext <8 x i16> undef to <8 x i64>
; AVX-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %B = zext <8 x i32> undef to <8 x i64>
; AVX-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %C = zext <16 x i8> undef to <16 x i32>
; AVX-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %D = zext <16 x i16> undef to <16 x
i32>
; AVX-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %E = zext <32 x i8> undef to <32 x i16>
; AVX-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; SKX256-LABEL: 'zext512'
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %A = zext <8 x i16> undef to <8 x
i64>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = zext <8 x i32> undef to <8 x
i64>

```

```

; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = zext <16 x i8> undef to <16 x
i32>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = zext <16 x i16> undef to <16 x
i32>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = zext <32 x i8> undef to <32 x
i16>
; SKX256-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; VEC512-LABEL: 'zext512'
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %A = zext <8 x i16> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = zext <8 x i32> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = zext <16 x i8> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = zext <16 x i16> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = zext <32 x i8> undef to <32 x
i16>
; VEC512-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
%A = zext <8 x i16> undef to <8 x i64>
%B = zext <8 x i32> undef to <8 x i64>
%C = zext <16 x i8> undef to <16 x i32>
%D = zext <16 x i16> undef to <16 x i32>
%E = zext <32 x i8> undef to <32 x i16>
ret void
}

```

```

define void @sext256() "min-legal-vector-width"="256" {
; VEC256-LABEL: 'sext256'
; VEC256-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %A = sext <8 x i8> undef to <8 x i64>
; VEC256-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %B = sext <8 x i16> undef to <8 x
i64>
; VEC256-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %C = sext <8 x i32> undef to <8 x
i64>
; VEC256-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %D = sext <16 x i8> undef to <16 x
i32>
; VEC256-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %E = sext <16 x i16> undef to <16 x
i32>
; VEC256-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %F = sext <32 x i8> undef to <32 x
i16>
; VEC256-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; VEC512-LABEL: 'sext256'
; VEC512-NEXT: Cost Model: Found an estimated cost of 24 for instruction: %A = sext <8 x i8> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = sext <8 x i16> undef to <8 x

```

```

i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = sext <8 x i32> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = sext <16 x i8> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = sext <16 x i16> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %F = sext <32 x i8> undef to <32 x
i16>
; VEC512-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
%A = sext <8 x i8> undef to <8 x i64>
%B = sext <8 x i16> undef to <8 x i64>
%C = sext <8 x i32> undef to <8 x i64>
%D = sext <16 x i8> undef to <16 x i32>
%E = sext <16 x i16> undef to <16 x i32>
%F = sext <32 x i8> undef to <32 x i16>
ret void
}

define void @sext512() "min-legal-vector-width"="512" {
; AVX-LABEL: 'sext512'
; AVX-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %A = sext <8 x i8> undef to <8 x i64>
; AVX-NEXT: Cost Model: Found an estimated cost of 7 for instruction: %B = sext <8 x i16> undef to <8 x i64>
; AVX-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %C = sext <8 x i32> undef to <8 x i64>
; AVX-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %D = sext <16 x i8> undef to <16 x i32>
; AVX-NEXT: Cost Model: Found an estimated cost of 4 for instruction: %E = sext <16 x i16> undef to <16 x i32>
; AVX-NEXT: Cost Model: Found an estimated cost of 3 for instruction: %F = sext <32 x i8> undef to <32 x i16>
; AVX-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; SKX256-LABEL: 'sext512'
; SKX256-NEXT: Cost Model: Found an estimated cost of 24 for instruction: %A = sext <8 x i8> undef to <8 x
i64>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = sext <8 x i16> undef to <8 x
i64>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = sext <8 x i32> undef to <8 x
i64>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = sext <16 x i8> undef to <16 x
i32>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = sext <16 x i16> undef to <16 x
i32>
; SKX256-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %F = sext <32 x i8> undef to <32 x
i16>
; SKX256-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
; VEC512-LABEL: 'sext512'
; VEC512-NEXT: Cost Model: Found an estimated cost of 24 for instruction: %A = sext <8 x i8> undef to <8 x
i64>

```

```

; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %B = sext <8 x i16> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %C = sext <8 x i32> undef to <8 x
i64>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %D = sext <16 x i8> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %E = sext <16 x i16> undef to <16 x
i32>
; VEC512-NEXT: Cost Model: Found an estimated cost of 1 for instruction: %F = sext <32 x i8> undef to <32 x
i16>
; VEC512-NEXT: Cost Model: Found an estimated cost of 0 for instruction: ret void
;
%A = sext <8 x i8> undef to <8 x i64>
%B = sext <8 x i16> undef to <8 x i64>
%C = sext <8 x i32> undef to <8 x i64>
%D = sext <16 x i8> undef to <16 x i32>
%E = sext <16 x i16> undef to <16 x i32>
%F = sext <32 x i8> undef to <32 x i16>
ret void
}
$OpenBSD: COPYRIGHT,v 1.3 2003/06/02 20:18:36 millert Exp $

```

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```

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\*/

```
; RUN: llc -march=hexagon < %s
```

```
; REQUIRES: asserts
```

```
; The two loads based on %struct.0, loading two different data types
; cause LSR to assume type "void" for the memory type. This would then
; cause an assert in isLegalAddressingMode. Make sure we no longer crash.
```

```
target triple = "hexagon"
```

```
%struct.0 = type { i8*, i8, %union.anon.0 }
```

```
%union.anon.0 = type { i8* }
```

```
define hidden fastcc void @fred() unnamed_addr #0 {
```

```
entry:
```

```
br i1 undef, label %while.end, label %while.body.lr.ph
```

```
while.body.lr.ph: ; preds = %entry
```

```
br label %while.body
```

```
while.body: ; preds = %exit.2, %while.body.lr.ph
```

```
%lsr.iv = phi %struct.0* [%cgep22, %exit.2], [undef, %while.body.lr.ph]
```

```
switch i32 undef, label %exit [
```

```

 i32 1, label %sw.bb.i
 i32 2, label %sw.bb3.i
]

sw.bb.i: ; preds = %while.body
unreachable

sw.bb3.i: ; preds = %while.body
unreachable

exit: ; preds = %while.body
switch i32 undef, label %exit.2 [
 i32 1, label %sw.bb.i17
 i32 2, label %sw.bb3.i20
]

sw.bb.i17: ; preds = %exit
%0 = bitcast %struct.0* %lshr.iv to i32*
%1 = load i32, i32* %0, align 4
unreachable

sw.bb3.i20: ; preds = %exit
%2 = bitcast %struct.0* %lshr.iv to i8**
%3 = load i8*, i8** %2, align 4
unreachable

exit.2: ; preds = %exit
%cgep22 = getelementptr %struct.0, %struct.0* %lshr.iv, i32 1
br label %while.body

while.end: ; preds = %entry
ret void
}

attributes #0 = { nounwind optsize "target-cpu"="hexagonv55" }
; RUN: llc -mtriple=aarch64-apple-ios %s -o - | FileCheck %s

define <16 x double> @test_sitofp_fixed(<16 x i32> %in) {
; CHECK-LABEL: test_sitofp_fixed:

; First, extend each i32 to i64
; CHECK-DAG: sshll2.2d [[BLOCK0_HI:v[0-9]+]], v0, #0
; CHECK-DAG: sshll2.2d [[BLOCK1_HI:v[0-9]+]], v1, #0
; CHECK-DAG: sshll2.2d [[BLOCK2_HI:v[0-9]+]], v2, #0
; CHECK-DAG: sshll2.2d [[BLOCK3_HI:v[0-9]+]], v3, #0
; CHECK-DAG: sshll.2d [[BLOCK0_LO:v[0-9]+]], v0, #0
; CHECK-DAG: sshll.2d [[BLOCK1_LO:v[0-9]+]], v1, #0
; CHECK-DAG: sshll.2d [[BLOCK2_LO:v[0-9]+]], v2, #0

```

```

; CHECK-DAG: sshll.2d [[BLOCK3_LO:v[0-9]+]], v3, #0

; Next, convert each to double.
; CHECK-DAG: scvtf.2d v0, [[BLOCK0_LO]]
; CHECK-DAG: scvtf.2d v1, [[BLOCK0_HI]]
; CHECK-DAG: scvtf.2d v2, [[BLOCK1_LO]]
; CHECK-DAG: scvtf.2d v3, [[BLOCK1_HI]]
; CHECK-DAG: scvtf.2d v4, [[BLOCK2_LO]]
; CHECK-DAG: scvtf.2d v5, [[BLOCK2_HI]]
; CHECK-DAG: scvtf.2d v6, [[BLOCK3_LO]]
; CHECK-DAG: scvtf.2d v7, [[BLOCK3_HI]]

; CHECK: ret
%flt = sitofp <16 x i32> %in to <16 x double>
%res = fdiv <16 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0, double 64.0,
double 64.0>
ret <16 x double> %res
}

; This one is small enough to satisfy isSimple, but still illegally large.
define <4 x double> @test_sitofp_fixed_shortish(<4 x i64> %in) {
; CHECK-LABEL: test_sitofp_fixed_shortish:

; CHECK-DAG: scvtf.2d v0, v0
; CHECK-DAG: scvtf.2d v1, v1

; CHECK: ret
%flt = sitofp <4 x i64> %in to <4 x double>
%res = fdiv <4 x double> %flt, <double 64.0, double 64.0, double 64.0, double 64.0>
ret <4 x double> %res
}
; RUN: opt %s -inline -S | FileCheck %s

define internal void @innerSmall() "min-legal-vector-width"="128" {
ret void
}

define internal void @innerLarge() "min-legal-vector-width"="512" {
ret void
}

define internal void @innerNoAttribute() {
ret void
}

; We should not add an attribute during inlining. No attribute means unknown.
; Inlining doesn't change the fact that we don't know anything about this

```

```

; function.
define void @outerNoAttribute() {
 call void @innerLarge()
 ret void
}

define void @outerConflictingAttributeSmall() "min-legal-vector-width"="128" {
 call void @innerLarge()
 ret void
}

define void @outerConflictingAttributeLarge() "min-legal-vector-width"="512" {
 call void @innerSmall()
 ret void
}

```

; We should remove the attribute after inlining since the callee's  
vector width requirements are unknown.

```

define void @outerAttribute() "min-legal-vector-width"="128" {
 call void @innerNoAttribute()
 ret void
}

```

```

; CHECK: define void @outerNoAttribute() {
; CHECK: define void @outerConflictingAttributeSmall() #0
; CHECK: define void @outerConflictingAttributeLarge() #0
; CHECK: define void @outerAttribute() {
; CHECK: attributes #0 = { "min-legal-vector-width"="512" }
; RUN: opt -consthoist -S -o - %s | FileCheck %s
target datalayout = "e-m:e-p:32:32-i64:64-v128:64:128-a:0:32-n32-S64"
target triple = "thumbv6m-none--musleabi"

```

```

; Check that for i8 type, the maximum legal offset is 31.
; Also check that an constant used as value to be stored rather than
; pointer in a store instruction is hoisted.
; CHECK: foo_i8
; CHECK-DAG: %[[C1:const[0-9]?]] = bitcast i32 805874720 to i32
; CHECK-DAG: %[[C2:const[0-9]?]] = bitcast i32 805874688 to i32
; CHECK-DAG: %[[C3:const[0-9]?]] = bitcast i32 805873720 to i32
; CHECK-DAG: %[[C4:const[0-9]?]] = bitcast i32 805873688 to i32
; CHECK: %0 = inttoptr i32 %[[C2]] to i8*
; CHECK-NEXT: %1 = load volatile i8, i8* %0
; CHECK-NEXT: %[[M1:const_mat[0-9]?]] = add i32 %[[C2]], 4
; CHECK-NEXT: %2 = inttoptr i32 %[[M1]] to i8*
; CHECK-NEXT: %3 = load volatile i8, i8* %2
; CHECK-NEXT: %[[M2:const_mat[0-9]?]] = add i32 %[[C2]], 31
; CHECK-NEXT: %4 = inttoptr i32 %[[M2]] to i8*
; CHECK-NEXT: %5 = load volatile i8, i8* %4

```

```

; CHECK-NEXT: %6 = inttoptr i32 %[[C1]] to i8*
; CHECK-NEXT: %7 = load volatile i8, i8* %6
; CHECK-NEXT: %[[M3:const_mat[0-9]?]] = add i32 %[[C1]], 7
; CHECK-NEXT: %8 = inttoptr i32 %[[M3]] to i8*
; CHECK-NEXT: %9 = load volatile i8, i8* %8
; CHECK-NEXT: %10 = inttoptr i32 %[[C4]] to i8*
; CHECK-NEXT: store i8 %9, i8* %10
; CHECK-NEXT: %[[M4:const_mat[0-9]?]] = add i32 %[[C4]], 31
; CHECK-NEXT: %11 = inttoptr i32 %[[M4]] to i8*
; CHECK-NEXT: store i8 %7, i8* %11
; CHECK-NEXT: %12 = inttoptr i32 %[[C3]] to i8*
; CHECK-NEXT: store i8 %5, i8* %12
; CHECK-NEXT: %[[M5:const_mat[0-9]?]] = add i32 %[[C3]], 7
; CHECK-NEXT: %13 = inttoptr i32 %[[M5]] to i8*
; CHECK-NEXT: store i8 %3, i8* %13
; CHECK-NEXT: %[[M6:const_mat[0-9]?]] = add i32 %[[C1]], 80
; CHECK-NEXT: %14 = inttoptr i32 %[[M6]] to i8*
; CHECK-NEXT: store i8* %14, i8** @goo

```

```
@goo = global i8* undef
```

```

define void @foo_i8() {
entry:
%0 = load volatile i8, i8* inttoptr (i32 805874688 to i8*)
%1 = load volatile i8, i8* inttoptr (i32 805874692 to i8*)
%2 = load volatile i8, i8* inttoptr (i32 805874719 to i8*)
%3 = load volatile i8, i8* inttoptr (i32 805874720 to i8*)
%4 = load volatile i8, i8* inttoptr (i32 805874727 to i8*)
store i8 %4, i8* inttoptr(i32 805873688 to i8*)
store i8 %3, i8* inttoptr(i32 805873719 to i8*)
store i8 %2, i8* inttoptr(i32 805873720 to i8*)
store i8 %1, i8* inttoptr(i32 805873727 to i8*)
store i8* inttoptr(i32 805874800 to i8*), i8** @goo
ret void
}

```

```

; Check that for i16 type, the maximum legal offset is 62.
; CHECK: foo_i16
; CHECK-DAG: %[[C1:const[0-9]?]] = bitcast i32 805874752 to i32
; CHECK-DAG: %[[C2:const[0-9]?]] = bitcast i32 805874688 to i32
; CHECK: %0 = inttoptr i32 %[[C2]] to i16*
; CHECK-NEXT: %1 = load volatile i16, i16* %0, align 2
; CHECK-NEXT: %[[M1:const_mat[0-9]?]] = add i32 %[[C2]], 4
; CHECK-NEXT: %2 = inttoptr i32 %[[M1]] to i16*
; CHECK-NEXT: %3 = load volatile i16, i16* %2, align 2
; CHECK-NEXT: %[[M2:const_mat[0-9]?]] = add i32 %[[C2]], 32
; CHECK-NEXT: %4 = inttoptr i32 %[[M2]] to i16*
; CHECK-NEXT: %5 = load volatile i16, i16* %4, align 2

```

```

; CHECK-NEXT: %[[M3:const_mat[0-9]?]] = add i32 %[[C2]], 62
; CHECK-NEXT: %6 = inttoptr i32 %[[M3]] to i16*
; CHECK-NEXT: %7 = load volatile i16, i16* %6, align 2
; CHECK-NEXT: %8 = inttoptr i32 %[[C1]] to i16*
; CHECK-NEXT: %9 = load volatile i16, i16* %8, align 2
; CHECK-NEXT: %[[M4:const_mat[0-9]?]] = add i32 %[[C1]], 22
; CHECK-NEXT: %10 = inttoptr i32 %[[M4]] to i16*
; CHECK-NEXT: %11 = load volatile i16, i16* %10, align 2

```

```

define void @foo_i16() {
entry:
%0 = load volatile i16, i16* inttoptr (i32 805874688 to i16*), align 2
%1 = load volatile i16, i16* inttoptr (i32 805874692 to i16*), align 2
%2 = load volatile i16, i16* inttoptr (i32 805874720 to i16*), align 2
%3 = load volatile i16, i16* inttoptr (i32 805874750 to i16*), align 2
%4 = load volatile i16, i16* inttoptr (i32 805874752 to i16*), align 2
%5 = load volatile i16, i16* inttoptr (i32 805874774 to i16*), align 2
ret void
}

```

```

; Check that for i32 type, the maximum legal offset is 124.
; CHECK: foo_i32
; CHECK-DAG: %[[C1:const[0-9]?]] = bitcast i32 805874816 to i32
; CHECK-DAG: %[[C2:const[0-9]?]] = bitcast i32 805874688 to i32
; CHECK: %0 = inttoptr i32 %[[C2]] to i32*
; CHECK-NEXT: %1 = load volatile i32, i32* %0, align 4
; CHECK-NEXT: %[[M1:const_mat[0-9]?]] = add i32 %[[C2]], 4
; CHECK-NEXT: %2 = inttoptr i32 %[[M1]] to i32*
; CHECK-NEXT: %3 = load volatile i32, i32* %2, align 4
; CHECK-NEXT: %[[M2:const_mat[0-9]?]] = add i32 %[[C2]], 124
; CHECK-NEXT: %4 = inttoptr i32 %[[M2]] to i32*
; CHECK-NEXT: %5 = load volatile i32, i32* %4, align 4
; CHECK-NEXT: %6 = inttoptr i32 %[[C1]] to i32*
; CHECK-NEXT: %7 = load volatile i32, i32* %6, align 4
; CHECK-NEXT: %[[M3:const_mat[0-9]?]] = add i32 %[[C1]], 8
; CHECK-NEXT: %8 = inttoptr i32 %[[M3]] to i32*
; CHECK-NEXT: %9 = load volatile i32, i32* %8, align 4
; CHECK-NEXT: %[[M4:const_mat[0-9]?]] = add i32 %[[C1]], 12
; CHECK-NEXT: %10 = inttoptr i32 %[[M4]] to i32*
; CHECK-NEXT: %11 = load volatile i32, i32* %10, align 4

```

```

define void @foo_i32() {
entry:
%0 = load volatile i32, i32* inttoptr (i32 805874688 to i32*), align 4
%1 = load volatile i32, i32* inttoptr (i32 805874692 to i32*), align 4
%2 = load volatile i32, i32* inttoptr (i32 805874812 to i32*), align 4
%3 = load volatile i32, i32* inttoptr (i32 805874816 to i32*), align 4
%4 = load volatile i32, i32* inttoptr (i32 805874824 to i32*), align 4

```

```
%5 = load volatile i32, i32* inttoptr (i32 805874828 to i32*), align 4
ret void
}
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```

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```



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```
; RUN: llc < %s -mtriple=x86_64-linux-android -mattr=+mmx -enable-legalize-types-checking | FileCheck %s
;
; D31946
; Check that we dont end up with the ""LLVM ERROR: Cannot select" error.
; Additionally ensure that the output code actually put fp128 values in SSE registers.
```

```
declare fp128 @llvm.fabs.f128(fp128)
```

```
declare fp128 @llvm.copysign.f128(fp128, fp128)
```

```
define fp128 @TestSelect(fp128 %a, fp128 %b) {
```

```
 %cmp = fcmp ogt fp128 %a, %b
```

```
 %sub = fsub fp128 %a, %b
```

```
 %res = select i1 %cmp, fp128 %sub, fp128 0xL00000000000000000000000000000000
```

```
 ret fp128 %res
```

```
; CHECK-LABEL: TestSelect:
```

```
; CHECK movaps 16(%rsp), %xmm1
```

```
; CHECK-NEXT callq __subtf3
```

```
; CHECK-NEXT testl %ebx, %ebx
```

```
; CHECK-NEXT jg .LBB0_2
```

```
; CHECK-NEXT # %bb.1:
```

```
; CHECK-NEXT movaps .LCPI0_0(%rip), %xmm0
```

```
; CHECK-NEXT .LBB0_2:
```

```
; CHECK-NEXT addq $32, %rsp
; CHECK-NEXT popq %rbx
; CHECK-NEXT retq
}
```

```
define fp128 @TestFabs(fp128 %a) {
 %res = call fp128 @llvm.fabs.f128(fp128 %a)
 ret fp128 %res
; CHECK-LABEL: TestFabs:
; CHECK andps .LCPI1_0(%rip), %xmm0
; CHECK-NEXT retq
}
```

```
define fp128 @TestCopysign(fp128 %a, fp128 %b) {
 %res = call fp128 @llvm.copysign.f128(fp128 %a, fp128 %b)
 ret fp128 %res
; CHECK-LABEL: TestCopysign:
; CHECK andps .LCPI2_1(%rip), %xmm0
; CHECK-NEXT orps %xmm1, %xmm0
; CHECK-NEXT retq
}
```

```
define fp128 @TestFneg(fp128 %a) {
 %mul = fmul fp128 %a, %a
 %res = fsub fp128 0xL00000000000000008000000000000000, %mul
 ret fp128 %res
; CHECK-LABEL: TestFneg:
; CHECK movaps %xmm0, %xmm1
; CHECK-NEXT callq __multf3
; CHECK-NEXT xorps .LCPI3_0(%rip), %xmm0
; CHECK-NEXT popq %rax
; CHECK-NEXT retq
}
```

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## 1.461 libxv 1.0.11-2

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## 1.462 xkeyboard-config 2.27-1

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## 1.465 libcap 2.66

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# 1.474 gdbm 1.18.1

## 1.474.1 Available under license :

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Version 3, 29 June 2007

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# 1.475 protobuf 3.21.8

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- \* Small patch to handle trailing slashes in --proto\_path flag.

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- \* Small patch to fix Python CallMethod().

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- \* Small optimizations to Python serialization.

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- \* VI syntax highlighting tweaks.
- \* Fix compiler to not make output executable.

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- \* Heuristic detection of sub-messages when printing unknown fields in text format.

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- \* Added @Override annotation to generated Java code where appropriate.

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- \* Tru64 support.

Monty Taylor <monty.taylor@gmail.com>

- \* Solaris 10 + Sun Studio fixes.

Alek Storm <alek.storm@gmail.com>

- \* Slicing support for repeated scalar fields for the Python API.

Oleg Smolsky <oleg.smolsky@gmail.com>

- \* MS Visual Studio error format option.
- \* Detect unordered\_map in stl\_hash.m4.

Brian Olson <brianolson@google.com>

- \* gzip/zlib I/O support.

Michael Poole <mdpooles@troilus.org>

- \* Fixed warnings about generated constructors not explicitly initializing all fields (only present with certain compiler settings).
- \* Added generation of field number constants.

Wink Saville <wink@google.com>

- \* Fixed initialization ordering problem in logging code.

Will Pierce <willp@nuclei.com>

- \* Small patch improving performance of in Python serialization.

Alexandre Vassalotti <alexandre@peadrop.com>

- \* Emacs mode for Protocol Buffers (editors/protobuf-mode.el).

Scott Stafford <scott.stafford@gmail.com>

\* Added Swap(), SwapElements(), and RemoveLast() to Reflection interface.

Alexander Melnikov <alm@sibmail.ru>

\* HPUX support.

Oliver Jowett <oliver.jowett@gmail.com>

\* Detect whether zlib is new enough in configure script.

\* Fixes for Solaris 10 32/64-bit confusion.

Evan Jones <evanj@mit.edu>

\* Optimize Java serialization code when writing a small message to a stream.

\* Optimize Java serialization of strings so that UTF-8 encoding happens only once per string per serialization call.

\* Clean up some Java warnings.

\* Fix bug with permanent callbacks that delete themselves when run.

Michael Kucharski <m.kucharski@gmail.com>

\* Added CodedInputStream.getTotalBytesRead().

Kacper Kowalik <xarthisius.kk@gmail.com>

\* Fixed m4/acx\_pthread.m4 problem for some Linux distributions.

William Orr <will@worrbase.com>

\* Fixed detection of sched\_yield on Solaris.

\* Added atomicops for Solaris

Andrew Paprocki <andrew@ishiboo.com>

\* Fixed minor IBM xLC compiler build issues

\* Added atomicops for AIX (POWER)

Nipunn Koorapati <nipunn1313@gmail.com>

\* Provide a type alias field ValueType on EnumTypeWrapper

\* Match service argument names to abstract interface

# 1.476 sysdig 0.29.3

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```
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#+TITLE: List of code with permissive licenses as used by GnuPG.
#+STARTUP: showall
```

```
* DNS resolver (dirmngr/dns.c)
```

dns.c - Recursive, Reentrant DNS Resolver.

-----  
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\* Regular expression support

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Subsequently modified by:

1986 John Gilmore hoptoad!gnu

1987 James A. Woods ames!jaw

1993 Christopher Seiwald seiwald@vix.com

2000, 2002 Christopher Seiwald <seiwald@perforce.com>

2010 Steve Bennett <steveb@workware.net.au>

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Protocol Buffers for Go with Gadgets

Go support for Protocol Buffers - Google's data interchange format

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<https://github.com/golang/protobuf>

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procfs provides functions to retrieve system, kernel and process metrics from the pseudo-filesystem proc.

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## 1.488 golang 1.12.7

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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6,

whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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- b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies

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Ty Coon, President of Vice

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## 1.490 libomxil-bellagio 0.9.3-2

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Version 2.1, February 1999

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

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* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/nologin.c
* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/main.c
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```

```

* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/checkfaillog.c
* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/auth_mdw.c
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* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-
2.3.11/auth_openbsd.c
* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/pwauth.h
* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/fail_log.c
* /opt/cola/permits/1665656527_1683318071.2785275/0/pwauth-2-3-11-orig-2-tar-gz/pwauth-2.3.11/snooze.c
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## 1.510 xorg-server 1.20.5

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## 1.513 golang-jwt 4.4.3

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\* /opt/cola/permits/1578118093\_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-xz/usr/include/vid.stab/localmotion2transform.h

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\* motiondetect\_opt.h  
\*  
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\* Copyright (C) Alexey Osipov - July 2011  
\* simba at lerlan dot ru  
\* speed optimizations (threshold, spiral, SSE, asm)  
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\* /opt/cola/permits/1578118093\_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-xz/usr/include/vid.stab/motiondetect\_opt.h



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```
/*
 * motiondetect_internal.h
 *
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```
*/opt/cola/permits/1578118093_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-
xz/usr/include/vid.stab/motiondetect_internal.h
```

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 * libvidstab.h
 *
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\* vidstabdefines.h

\*

\* Created on: Feb 23, 2011

\* Author: georg

\*

\* This file is part of vid.stab video stabilization library

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\*

\*

\*/

Found in path(s):

\* /opt/cola/permits/1578118093\_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-  
xz/usr/include/vid.stab/vidstabdefines.h

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/\*

\* transformtype.h

\*

```
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* georg dot martius at web dot de
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*
*/
```

Found in path(s):

```
*/opt/cola/permits/1578118093_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-
xz/usr/include/vid.stab/boxblur.h
```

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```
/*
* motiondetect.h
*
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\* vsvector.h -- a dynamic array

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\* georg dot martius at web dot de

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\* transformtype\_operations.h

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Found in path(s):

\* /opt/cola/permits/1578118093\_1683914065.1880314/0/vid-stab-1-1-2-x86-64-pkg-tar-  
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# 1.515 lame 3.100

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```

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```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

That's all there is to it!

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
 <meta name="generator" content="PSPad editor, www.pspad.com" />
 <meta http-equiv="content-type" content="text/html; charset=UTF-8" />
 <link rel="stylesheet" type="text/css" href="styles/lame.css" />
```



```
<title>LAME MP3 Encoder :: Developers</title>
</head>
<body>
<div id="menu">

Index page
About LAME
Intro to encoding
Usage of LAME
Version history
Coders of LAME
Contact LAME
LAME links

</div>
<div id="container">
<div id="content">

<div align="center">

<h2 class="hilight">LAME Developers</h2>
</div>

<p>
Note: if possible, please do not contact developers directly, but proceed as
mentioned in the contact page.
</p>

<p>
LAME was originally developed by Mike Cheng, from 1998 to 1999. After he
retired, the project started being maintained by Mark Taylor till early 2003.
After 2003, the project became managed by core developpers' teamwork, with no
official hierarchy or leadership.
</p>

<p>
The following list only represents some of the individuals (in alphabetical
order of family name) that contributed resources to LAME development. LAME
owes its quality and speed to contributions from many other people, including
the many people who post to the mp3encoder mailing list. See
History for more complete details.
</p>

<table class="devlist">
<tbody>

<tr>
```

```

<th colspan="2">Primary developers:</th>
</tr>

<tr>
<td>Robert Hegemann</td>
<td>Tuning, optimizations, psychoacoustics...</td>
</tr>

<tr>
<td>Alexander Leidinger</td>
<td>Multiplatform configuration, libraries handling, release management...</td>
</tr>

<tr>
<td>Rogério Brito</td>
<td>Debian packaging, debugging.</td>
</tr>

<tr><th colspan="2">Primary developers - Retired:</th></tr>

<tr>
<td width="30%">Gabriel Bouvigne</td>
<td>Tuning, optimizations, psychoacoustics...</td>
</tr>

<tr>
<td>Mike Cheng</td>
<td>Maintainer of LAME v2.x.</td>
</tr>

<tr>
<td>Frank Klemm</td>
<td>Psychoacoustics, optimizations.</td>
</tr>

<tr>
<td>Naoki Shibata</td>
<td>Psychoacoustics (NSPsytone model, NSSafeJoint).</td>
</tr>

<tr>
<td>Mark Taylor</td>
<td>Maintainer of LAME v3.x, initial implementer of GPsycho psychoacoustic
model.</td>
</tr>

<tr>
<td>Takehiro Tominaga</td>

```

<td>Psychoacoustics, bitstream, optimizations, assembly code...</td>
</tr>
<tr><th colspan="2">Additional developers:</th></tr>
<tr>
<td><a href="http://www.rjamorim.com">Roberto Amorim</a></td>
<td>Web pages and documentation.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/jd-">John Dahlstrom</a></td>
<td>Adaptive ATH.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/potsticker">John Dee</a></td>
<td>LAME extended VBR header.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/domd/">Dominique Duvivier</a></td>
<td>Speed optimizations.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/afaber">Albert Faber</a></td>
<td>Author of CDex and lame_enc.dll.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/pgubanov">Peter Gubanov</a></td>
<td>LAME DirectShow Filter.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/glessard">Guillaume Lessard</a></td>
<td>&nbsp;</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/robux4">Steve Lhomme</a></td>
<td>LAME ACM codec.</td>
</tr>
<tr>
<td><a href="http://sourceforge.net/users/gramps">Don Melton</a></td>
<td>id3v1 and v2 code.</td>

```

</tr>

<tr>
<td>Darin Morrison</td>
<td>Presets tuning.</td>
</tr>

<tr>
<td>Kyle VanderBeek</td>
<td>Python bindings, website clean-up.</td>
</tr>

</tbody>
</table>

</div>
<div id="footer">

<p>HTML markup and design by Roberto Amorim and Sebastian Mares. Logo by Sam Fisher.</p>

</div>
</div>

</body>
</html>

```

## 1.516 libavc 0.5.4 3

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## 1.518 libosspuuid 1.6.2

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**
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** of UUIDs which can found at http://www.ossproject.org/pkg/lib/uuid/
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**
** uuid_md5.c: MD5 API implementation
*/
/*
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\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_md5.c  
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\*\*  
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\*\*  
\*\* ui64.c: implementation of 64-bit unsigned integer arithmetic  
\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_ui64.c  
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```
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dnl This file is part of OSSP uuid, a library for the generation
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dnl OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT
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dnl SUCH DAMAGE.
dnl
dnl
dnl config.m4: PHP/Zend API build-time configuration (language: m4)
dnl
```

```
PHP_ARG_ENABLE(uuid, OSSP uuid module,
[--enable-uuid Enable OSSP uuid extension module.])
```

```
if test "$PHP_UUID" != "no"; then
 PHP_NEW_EXTENSION(uuid, uuid.c, $ext_shared)
 AC_DEFINE(HAVE_UUID, 1, [Have OSSP uuid library])
 PHP_ADD_LIBPATH([.],)
 PHP_ADD_LIBRARY([uuid],, UUID_SHARED_LIBADD)
 PHP_ADD_INCLUDE([.])
 PHP_SUBST(UUID_SHARED_LIBADD)
```

```
dnl avoid linking conflict with a potentially existing uuid_create(3) in libc
AC_CHECK_FUNC(uuid_create,[
 SAVE_LDFLAGS="$LDFLAGS"
 LDFLAGS="$LDFLAGS -Wl,-Bsymbolic"
 AC_TRY_LINK([],[], [EXTRA_LDFLAGS="$EXTRA_LDFLAGS -Wl,-Bsymbolic"])
 LDFLAGS="$SAVE_LDFLAGS"])
fi
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0001-Change-library-name.patch/php/config.m4
```

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```
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##
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##
uuid_cli.pod: manual page
##
```

=pod

=head1 NAME

B<OSSP uuid> - B<Universally Unique Identifier Command-Line Tool>

=head1 VERSION

OSSP uuid UUID\_VERSION\_STR

=head1 SYNOPSIS

B<uuid>

[B<-v> I<version>]

[B<-m>]

[B<-n> I<count>]

[B<-l>]

[B<-F> I<format>]  
[B<-o> I<filename>]  
[I<namespace> I<name>]

B<uuid>  
B<-d>  
[B<-r>]  
[B<-o> I<filename>]  
I<uuid>

=head1 DESCRIPTION

B<OSSP uuid> is a ISO-C:1999 application programming interface (API) and corresponding command line interface (CLI) for the generation of DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 compliant I<Universally Unique Identifier> (UUID). It supports DCE 1.1 variant UUIDs of version 1 (time and node based), version 3 (name based, MD5), version 4 (random number based) and version 5 (name based, SHA-1). Additional API bindings are provided for the languages ISO-C++:1998, Perl:5 and PHP:4/5. Optional backward compatibility exists for the ISO-C DCE-1.1 and Perl Data::UUID APIs.

UUIDs are 128 bit numbers which are intended to have a high likelihood of uniqueness over space and time and are computationally difficult to guess. They are globally unique identifiers which can be locally generated without contacting a global registration authority. UUIDs are intended as unique identifiers for both mass tagging objects with an extremely short lifetime and to reliably identifying very persistent objects across a network.

This is the command line interface (CLI) of B<OSSP uuid>. For a detailed description of UUIDs see the documentation of the application programming interface (API) in uuid(3).

=head1 OPTIONS

=over 3

=item B<-v> I<version>

Sets the version of the generated DCE 1.1 variant UUID. Supported are I<version> "C<1>", "C<3>", "C<4>" and "C<5>". The default is "C<1>".

For version 3 and version 5 UUIDs the additional command line arguments I<namespace> and I<name> have to be given. The I<namespace> is either a UUID in string representation or an identifier for internally pre-defined namespace UUIDs (currently known are "C<ns:DNS>", "C<ns:URL>", "C<ns:OID>", and "C<ns:X500>"). The I<name> is a string of



arbitrary length.

=item B<-m>

Forces the use of a random multi-cast MAC address when generating version 1 UUIDs. By default the real physical MAC address of the system is used.

=item B<-n> I<count>

Generate I<count> UUIDs instead of just a single one (the default).

=item B<-1>

If option B<-n> is used with a I<count> greater than C<1>, then this option can enforce the reset the UUID context for each generated UUID. This makes no difference for I<version> C<3>, C<4> and C<5> UUIDs. But version C<1> UUIDs are based on the previously generated UUID which is remembered in the UUID context of the API. Option B<-1> deletes the remembered UUID on each iteration.

=item B<-F> I<format>

Representation format for importing or exporting an UUID. The following (case insensitive) format identifiers are currently recognized:

=over 4

=item C<BIN> (binary representation)

This is the raw 128 bit network byte order binary representation of a UUID. Example is the octet stream C<0xF8 0x1D 0x4F 0xAE 0x7D 0xEC 0x11 0xD0 0xA7 0x65 0x00 0xA0 0xC9 0x1E 0x6B 0xF6>.

=item C<STR> (string representation)

This is the 36 character hexadecimal ASCII string representation of a UUID. Example is the string "C<f81d4fae-7dec-11d0-a765-00a0c91e6bf6>".

=item C<SIV> (single integer value representation)

This is the maximum 39 character long single integer value representation of a UUID. Example is the string "C<329800735698586629295641978511506172918>".

=back

=item B<-o> I<filename>

Write output to I<filename> instead of to F<stdout>.

=item B<-d>

Decode a given UUID (given as a command line argument or if the command line argument is "C<->" the UUID is read from F<stdin>) and dump textual information about the UUID.

=back

=head1 EXAMPLES

```
generate DCE 1.1 v1 UUID (time and node based)
```

```
$ uuid -v1
```

```
01c47915-4777-11d8-bc70-0090272ff725
```

```
decode and dump DCE 1.1 v1 UUID (time and node based)
```

```
$ uuid -d 01c47915-4777-11d8-bc70-0090272ff725
```

```
encode: STR: 01c47915-4777-11d8-bc70-0090272ff725
```

```
 SIV: 2349374037528578887923094374772111141
```

```
decode: variant: DCE 1.1, ISO/IEC 11578:1996
```

```
 version: 1 (time and node based)
```

```
 content: time: 2004-01-15 16:22:26.376322.1 UTC
```

```
 clock: 15472 (usually random)
```

```
 node: 00:90:27:2f:f7:25 (global unicast)
```

```
generate DCE 1.1 v3 UUID (name based)
```

```
$ uuid -v3 ns:URL http://www.ossdp.org/
```

```
02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

```
decode and dump DCE 1.1 v3 UUID (name based)
```

```
$ uuid -d 02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

```
encode: STR: 02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

```
 SIV: 3789866285607910888100818383505376205
```

```
decode: variant: DCE 1.1, ISO/IEC 11578:1996
```

```
 version: 3 (name based, MD5)
```

```
 content: 02:D9:E6:D5:94:67:08:2E:0F:9B:93:00:A6:4A:C3:CD
```

```
 (not decipherable: MD5 message digest only)
```

```
generate DCE 1.1 v4 UUID 4 (random data based)
```

```
$ uuid -v4
```

```
eb424026-6f54-4ef8-a4d0-bb658a1fc6cf
```

```
decode and dump DCE 1.1 v4 UUID 4 (random data based)
```

```
$ uuid -d eb424026-6f54-4ef8-a4d0-bb658a1fc6cf
```

```
encode: STR: eb424026-6f54-4ef8-a4d0-bb658a1fc6cf
```

```
 SIV: 312712571721458096795100956955942831823
```

decode: variant: DCE 1.1, ISO/IEC 11578:1996  
version: 4 (random data based)  
content: EB:42:40:26:6F:54:0E:F8:24:D0:BB:65:8A:1F:C6:CF  
(no semantics: random data only)

=head1 SEE ALSO

uuid(3), OSSP::uuid(3).

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0003-Fix-whatis-entries.patch/uuid\_cli.pod

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```

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uuid_cli.pod: manual page
##
```

=pod

=head1 NAME

B<uuid> - B<Universally Unique Identifier Command-Line Tool>

=head1 VERSION

OSSP uuid UUID\_VERSION\_STR

=head1 SYNOPSIS

B<uuid>

[B<-v> I<version>]

[B<-m>]

[B<-n> I<count>]

[B<-l>]

[B<-F> I<format>]

[B<-o> I<filename>]

[I<namespace> I<name>]

B<uuid>

B<-d>

[B<-r>]

[B<-o> I<filename>]

I<uuid>

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=back

=item B<-o> I<filename>

Write output to I<filename> instead of to F<stdout>.

=item B<-d>

Decode a given UUID (given as a command line argument or if the command line argument is "C<->" the UUID is read from F<stdin>) and dump textual information about the UUID.

=back

=head1 EXAMPLES

```
generate DCE 1.1 v1 UUID (time and node based)
```

```
$ uuid -v1
```

```
01c47915-4777-11d8-bc70-0090272ff725
```

```
decode and dump DCE 1.1 v1 UUID (time and node based)
```

```
$ uuid -d 01c47915-4777-11d8-bc70-0090272ff725
```

```
encode: STR: 01c47915-4777-11d8-bc70-0090272ff725
```

```
 SIV: 2349374037528578887923094374772111141
```

```
decode: variant: DCE 1.1, ISO/IEC 11578:1996
```

```
 version: 1 (time and node based)
```

```
 content: time: 2004-01-15 16:22:26.376322.1 UTC
```

```
 clock: 15472 (usually random)
```

```
 node: 00:90:27:2f:f7:25 (global unicast)
```

```
generate DCE 1.1 v3 UUID (name based)
```

```
$ uuid -v3 ns:URL http://www.ossip.org/
```

```
02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

```
decode and dump DCE 1.1 v3 UUID (name based)
```

```
$ uuid -d 02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

```
encode: STR: 02d9e6d5-9467-382e-8f9b-9300a64ac3cd
```

SIV: 3789866285607910888100818383505376205  
decode: variant: DCE 1.1, ISO/IEC 11578:1996  
version: 3 (name based, MD5)  
content: 02:D9:E6:D5:94:67:08:2E:0F:9B:93:00:A6:4A:C3:CD  
(not decipherable: MD5 message digest only)

# generate DCE 1.1 v4 UUID 4 (random data based)

\$ uuid -v4

eb424026-6f54-4ef8-a4d0-bb658a1fc6cf

# decode and dump DCE 1.1 v4 UUID 4 (random data based)

\$ uuid -d eb424026-6f54-4ef8-a4d0-bb658a1fc6cf

encode: STR: eb424026-6f54-4ef8-a4d0-bb658a1fc6cf

SIV: 312712571721458096795100956955942831823

decode: variant: DCE 1.1, ISO/IEC 11578:1996

version: 4 (random data based)

content: EB:42:40:26:6F:54:0E:F8:24:D0:BB:65:8A:1F:C6:CF

(no semantics: random data only)

=head1 SEE ALSO

uuid(3), OSSP::uuid(3).

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_cli.pod

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\*\* uuid\_dce.h: DCE 1.1 compatibility API definition

\*/

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\*\* uuid\_sha1.h: SHA-1 API definition

\*/

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**
** uuid_time.c: Time Management
*/
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid_time.c
```

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```

```
##
```

```
uuid++.pod: manual page for C++ API
```

```
##
```

```
=pod
```

```
=head1 NAME
```

```
B<OSSP uuid> - B<Universally Unique Identifier> (C++ API)
```

```
=head1 VERSION
```

```
OSSP uuid UUID_VERSION_STR
```

```
=head1 DESCRIPTION
```

B<uuid++> is the ISO-C++ language binding of the B<OSSP uuid> C API. It provides a thin ISO-C++ class B<uuid> wrapping the ISO-C API type B<uuid\_t>.

```
=head1 APPLICATION PROGRAMMING INTERFACE
```

The ISO-C++ Application Programming Interface (API) of B<OSSP uuid> consists of the following components:

```
=head2 CONSTANTS
```

The constants are the same to those provided by the ISO-C API. See uuid(3) for details.

```
=head2 CLASSES
```

The following classes are provided:

```
=over 4
```

```
=item B<uuid>
```

This is the class corresponding to the C API type B<uuid\_t>.

It is the main object.

=item B<uuid\_error\_t>

This is the class corresponding to the C API function B<uuid\_error>.

It is the object thrown as an exception in case of any errors.

=back

=head2 METHODS

The following methods are provided:

=over 4

=item B<uuid>();

The standard constructor.

=item B<uuid>(const uuid &\_obj);

The copy constructor for B<uuid> class.

=item B<uuid>(const uuid\_t \*\_obj);

The import constructor for C API objects.

=item B<uuid>(const void \*\_bin);

The import constructor for binary representation.

=item B<uuid>(const char \*\_str);

The import constructor for string representation.

=item ~B<uuid>();

The standard destructor for B<uuid> class.

=item uuid &B<uuid::operator=>(const uuid &\_obj);

The assignment operator corresponding to the copy constructor.

=item uuid &B<uuid::operator=>(const uuid\_t \*\_obj);

The assignment operator corresponding to the import constructor for C API objects.

=item uuid &B<uuid::operator=>(const void \*\_bin);

The assignment operator corresponding to the import constructor for binary representation.

```
=item uuid &B<uuid::operator==>(const char *_str);
```

The assignment operator corresponding to the import constructor for string and single integer value representation.

```
=item uuid B<uuid::clone>(void);
```

Regular method corresponding to the C API function B<uuid\_clone>.

```
=item void B<uuid::load>(const char *_name);
```

Regular method corresponding to the C API function B<uuid\_load>.

```
=item void B<uuid::make>(unsigned int _mode, ...);
```

Regular method corresponding to the C API function B<uuid\_make>.

```
=item int B<uuid::isnil>(void);
```

Regular method corresponding to the C API function B<uuid\_isnil>.

```
=item int B<uuid::compare>(const uuid &_obj);
```

Regular method corresponding to the C API function B<uuid\_compare>.

```
=item int B<uuid::operator==>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for equality.

```
=item int B<uuid::operator!==(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for inequality.

```
=item int B<uuid::operatorE<lt>>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for less-than.

```
=item int B<uuid::operatorE<lt;=>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for less-than-or-equal.

```
=item int B<uuid::operatorE<gt;>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for greater-than.

```
=item int B<uuid::operatorE<gt;=>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for greater-than-or-equal.

```
=item void B<uuid::import>(const void *_bin);
```

Regular method corresponding to the C API function B<uuid\_import> for binary representation usage.

```
=item void B<uuid::import>(const char *_str);
```

Regular method corresponding to the C API function B<uuid\_import> for string representation usage.

```
=item void *B<uuid::binary>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for binary representation usage.

```
=item char *B<uuid::string>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for string representation usage.

```
=item char *B<uuid::integer>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for single integer value representation usage.

```
=item char *B<uuid::summary>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for textual summary representation usage.

```
=item unsigned long B<uuid::version>(void);
```

Regular method corresponding to the C API function B<uuid\_version>.

```
=item B<uuid_error_t>()
```

The standard constructor for B<uuid\_error\_t> class.

```
=item B<uuid_error_t>(uuid_rc_t _code)
```

The standard constructor for B<uuid\_error\_t> class with return code initialization.

```
=item ~B<uuid_error_t>()
```

The standard destructor for B<uuid\_error\_t> class.

```
=item void B<uuid_error_t::code>(uuid_rc_t _code)
```

Regular method for setting the return code.

```
=item uuid_rc_t B<uuid_error_t::code>(void)
```

Regular method for fetching the return code.

```
=item char *B<uuid_error_t::string>(void)
```

Regular method for fetching the string corresponding to the current return code.

```
=back
```

```
=head1 EXAMPLE
```

The following shows an example usage of the C++ API. Exception handling is omitted for code simplification and has to be re-added for production code.

```
/* generate a DCE 1.1 v1 UUID from system environment */
char *uuid_v1(void)
{
 uuid id;
 char *str;

 id.make(UUID_MAKE_V1);
 str = id.string();
 return str;
}
```

```
/* generate a DCE 1.1 v3 UUID from an URL */
char *uuid_v3(const char *url)
{
 uuid id;
 uuid id_ns;
 char *str;

 id_ns.load("ns:URL");
 id.make(UUID_MAKE_V3, &id_ns, url);
 str = id.string();
 return str;
}
```

```
=head1 SEE ALSO
```

```
uuid(3).
```

```
=cut
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0003-Fix-whatis-entries.patch/uuid++.pod
```

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**
** uuid_dce.c: DCE 1.1 compatibility API implementation
*/
```

Found in path(s):

```
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```

```
**
** uuid_prng.c: PRNG API implementation
*/
```

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```
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```

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```

```
**
```

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```

```
**
```

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```

```
**
```

```
** uuid++.cc: library C++ API implementation
```

```
*/
```



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\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0001-Change-library-name.patch/perl/Makefile.PL

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0004-fix-data-uuid-from-string.patch/perl/uuid\_compat.ts

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid\_compat.pm

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/uuid.php5

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/uuid.php4

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/Makefile.local

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid.pm

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/Makefile.PL

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid-config.pod

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid-config.in

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/uuid.ts

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid\_compat.ts

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid.ts

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0004-fix-data-uuid-from-string.patch/perl/uuid\_compat.pm

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/Makefile.PL

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**
** uuid_ac.c: auto-configuration
*/
```

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```
dnl ##
```

```
dnl ## uuid.ac: UUID specific Autoconf checks
```

```
dnl ##
```

```
dnl # Check for anything OSSP uuid wants to know
```

```
dnl # configure.in:
```

```

dnl # UUID_CHECK_ALL

AC_DEFUN(UUID_CHECK_ALL,[
 dnl # make sure libnsl and libsocket are linked in if they exist
 AC_CHECK_LIB(nsl, gethostname)
 if test ".`echo $LIBS | grep nsl`" = .; then
 AC_CHECK_LIB(nsl, gethostbyname)
 fi
 AC_CHECK_LIB(socket, accept)

 dnl # check for portable va_copy()
 AC_CHECK_VA_COPY()

 dnl # check for system headers
 AC_CHECK_HEADERS(sys/types.h sys/param.h sys/time.h sys/socket.h sys/sockio.h sys/ioctl.h sys/select.h)
 AC_CHECK_HEADERS(netdb.h ifaddrs.h net/if.h net/if_dl.h net/if_arp.h netinet/in.h arpa/inet.h,,
 [[
 #if HAVE_SYS_TYPES_H
 #include <sys/types.h>
 #endif
 #if HAVE_SYS_SOCKET_H
 #include <sys/socket.h>
 #endif
 #if HAVE_SYS_IOCTL_H
 #include <sys/ioctl.h>
 #endif
]])

 dnl # check for existence of particular C structures
 AC_MSG_CHECKING(for struct timeval)
 AC_TRY_COMPILE([
 #ifdef HAVE_UNISTD_H
 #include <unistd.h>
 #endif
 #ifdef HAVE_SYS_TYPES_H
 #include <sys/types.h>
 #endif
 #ifdef HAVE_SYS_TIME_H
 #include <sys/time.h>
 #endif
 #include <time.h>
],[struct timeval tv;],
 [msg="yes"], [msg="no"])
 if test ".$msg" = .yes; then
 AC_DEFINE(HAVE_STRUCT_TIMEVAL, 1, [define if exists "struct timeval"])
 fi
 AC_MSG_RESULT([$msg])

```

```

dnl # check for functions
AC_CHECK_FUNCS(getifaddrs nanosleep Sleep gettimeofday clock_gettime)

dnl # check size of built-in types
AC_CHECK_TYPES([long long, long double])
AC_CHECK_SIZEOF(char, 1)
AC_CHECK_SIZEOF(unsigned char, 1)
AC_CHECK_SIZEOF(short, 2)
AC_CHECK_SIZEOF(unsigned short, 2)
AC_CHECK_SIZEOF(int, 4)
AC_CHECK_SIZEOF(unsigned int, 4)
AC_CHECK_SIZEOF(long, 4)
AC_CHECK_SIZEOF(unsigned long, 4)
AC_CHECK_SIZEOF(long long, 8)
AC_CHECK_SIZEOF(unsigned long long, 8)

dnl # configure option --with-dce
AC_ARG_WITH([dce],
 AC_HELP_STRING([--with-dce], [build DCE 1.1 backward compatibility API]),
 [ac_cv_with_dce=$withval], [ac_cv_with_dce=no])
AC_CACHE_CHECK([whether to build DCE 1.1 backward compatibility API], [ac_cv_with_dce],
[ac_cv_with_dce=no])
if test ".$ac_cv_with_dce" = ".yes"; then
 AC_DEFINE(WITH_DCE, 1, [whether to build DCE 1.1 backward compatibility API])
 WITH_DCE='yes'
 DCE_NAME='$(DCE_NAME)'
else
 WITH_DCE='no'
 DCE_NAME=""
fi
AC_SUBST(WITH_DCE)
AC_SUBST(DCE_NAME)

dnl # configure option --with-cxx
AC_ARG_WITH([cxx],
 AS_HELP_STRING([--with-cxx], [build C++ bindings to C API]),
 [ac_cv_with_cxx=$withval], [ac_cv_with_cxx=no])
AC_CACHE_CHECK([whether to build C++ bindings to C API], [ac_cv_with_cxx], [ac_cv_with_cxx=no])
if test ".$ac_cv_with_cxx" = ".yes"; then
 AC_DEFINE(WITH_CXX, 1, [whether to build C++ bindings to C API])
 WITH_CXX='yes'
 CXX_NAME='$(CXX_NAME)'
 AC_PROG_CXX
else
 WITH_CXX='no'
 CXX_NAME=""
fi
AC_SUBST(CXX_NAME)

```

AC\_SUBST(WITH\_CXX)

dnl # configure option --with-perl

AC\_ARG\_WITH([perl],

AS\_HELP\_STRING([--with-perl], [build Perl bindings to C API]),

[ac\_cv\_with\_perl=\$withval], [ac\_cv\_with\_perl=no])

AC\_CACHE\_CHECK([whether to build Perl bindings to C API], [ac\_cv\_with\_perl], [ac\_cv\_with\_perl=no])

AC\_ARG\_WITH([perl-compat],

AS\_HELP\_STRING([--with-perl-compat], [build Perl compatibility API]),

[ac\_cv\_with\_perl\_compat=\$withval], [ac\_cv\_with\_perl\_compat=no])

AC\_CACHE\_CHECK([whether to build Perl compatibility API], [ac\_cv\_with\_perl\_compat],

[ac\_cv\_with\_perl\_compat=no])

if test ".\$ac\_cv\_with\_perl" = ".yes"; then

AC\_DEFINE(WITH\_PERL, 1, [whether to build Perl bindings to C API])

WITH\_PERL='yes'

PERL\_NAME='\$(PERL\_NAME)'

else

WITH\_PERL='no'

PERL\_NAME=""

fi

if test ".\$ac\_cv\_with\_perl\_compat" = ".yes"; then

AC\_DEFINE(WITH\_PERL\_COMPAT, 1, [whether to build Perl compatibility API])

WITH\_PERL\_COMPAT=1

else

WITH\_PERL\_COMPAT=0

fi

AC\_SUBST(PERL\_NAME)

AC\_SUBST(WITH\_PERL)

AC\_SUBST(WITH\_PERL\_COMPAT)

AC\_PATH\_PROG(PERL, perl, NA)

if test ".\$ac\_cv\_with\_perl" = ".yes" -a ".\$PERL" = ".NA"; then

AC\_ERROR([required Perl interpreter not found in \$PATH])

fi

dnl # configure option --with-php

AC\_ARG\_WITH([php],

AS\_HELP\_STRING([--with-php], [build PHP bindings to C API]),

[ac\_cv\_with\_php=\$withval], [ac\_cv\_with\_php=no])

AC\_CACHE\_CHECK([whether to build PHP bindings to C API], [ac\_cv\_with\_php], [ac\_cv\_with\_php=no])

if test ".\$ac\_cv\_with\_php" = ".yes"; then

AC\_DEFINE(WITH\_PHP, 1, [whether to build PHP bindings to C API])

WITH\_PHP='yes'

PHP\_NAME='\$(PHP\_NAME)'

else

WITH\_PHP='no'

PHP\_NAME=""

fi

AC\_SUBST(PHP\_NAME)

```

AC_SUBST(WITH_PHP)
AC_PATH_PROGS(PHP, php5 php, NA)
if test ".$ac_cv_with_php" = ".yes" -a ".$PHP" = ".NA"; then
 AC_ERROR([required PHP interpreter not found in \${PATH}])
fi
if test ".$ac_cv_with_php" = ".yes"; then
 (cd php && make -f Makefile.local config PHP=$PHP)
fi

dnl # configure option --with-pgsql
AC_ARG_WITH([pgsql],
 AS_HELP_STRING([--with-pgsql], [build PostgreSQL bindings to C API]),
 [ac_cv_with_psql=$withval], [ac_cv_with_psql=no])
AC_CACHE_CHECK([whether to build PostgreSQL bindings to C API], [ac_cv_with_psql],
[ac_cv_with_psql=no])
if test ".$ac_cv_with_psql" = ".yes"; then
 AC_DEFINE(WITH_PGSQL, 1, [whether to build PostgreSQL bindings to C API])
 WITH_PGSQL='yes'
 PGSQL_NAME='${PGSQL_NAME}'
else
 WITH_PGSQL='no'
 PGSQL_NAME=""
fi
AC_SUBST(PGSQL_NAME)
AC_SUBST(WITH_PGSQL)
AC_PATH_PROGS(PG_CONFIG, pg_config, NA)
if test ".$ac_cv_with_psql" = ".yes" -a ".$PG_CONFIG" = ".NA"; then
 AC_ERROR([required PostgreSQL pg_config utility not found in \${PATH}])
fi
if test ".$ac_cv_with_psql" = ".yes" -a ".$${MAKE-make} -v 2>/dev/null | grep GNU`" = .; then
 AC_ERROR([PostgreSQL bindings require GNU make to build])
fi
)

```

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**
** uuid.c: library API implementation
**/
```

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```
**
** uuid.h: library API definition
**/
```

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**
** uuid_sha1.c: SHA-1 API implementation
**/
```

Found in path(s):

```
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```
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** OSSP ui128 - 128-Bit Arithmetic
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**
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```



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**
** ui128.c: implementation of 128-bit unsigned integer arithmetic
*/
```

Found in path(s):

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**
** uuid_md5.h: MD5 API definition
*/
```

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**
** uuid.c: PostgreSQL Binding (C part)
*/
```

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dnl
dnl
dnl config.m4: PHP/Zend API build-time configuration (language: m4)
dnl
```

```
PHP_ARG_ENABLE(uuid, OSSP uuid module,
[--enable-uuid Enable OSSP uuid extension module.])
```

```
if test "$PHP_UUID" != "no"; then
 PHP_NEW_EXTENSION(uuid, uuid.c, $ext_shared)
 AC_DEFINE(HAVE_UUID, 1, [Have OSSP uuid library])
 PHP_ADD_LIBPATH([.],)
 PHP_ADD_LIBRARY([osspp-uuid],, UUID_SHARED_LIBADD)
 PHP_ADD_INCLUDE([.])
 PHP_SUBST(UUID_SHARED_LIBADD)
```

```
dnl avoid linking conflict with a potentially existing uuid_create(3) in libc
AC_CHECK_FUNC(uuid_create,[
 SAVE_LDFLAGS="$LDFLAGS"
 LDFLAGS="$LDFLAGS -Wl,-Bsymbolic"
 AC_TRY_LINK([],[], [EXTRA_LDFLAGS="$EXTRA_LDFLAGS -Wl,-Bsymbolic"])
 LDFLAGS="$SAVE_LDFLAGS"])
fi
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/config.m4
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**
** uuid_time.h: Time Management API
*/
```

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**
** uuid_bm.c: bitmask API implementation
*/
```

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**
** uuid_str.c: string formatting functions
*/
```

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\*\* uuid\_cli.c: command line tool

\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0002-uuid-preserve-m-option-status-in-v-option-handling.patch/uuid\_cli.c

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_cli.c

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##

## OSSP uuid - Universally Unique Identifier

```
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Copyright (c) 2004-2007 The OSSP Project <http://www.ossp.org/>
##
This file is part of OSSP uuid, a library for the generation
of UUIDs which can found at http://www.ossp.org/pkg/lib/uuid/
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##
uuid_compat.pod: Data::UUID Backward Compatibility Perl API (Perl/POD part)
##
```

=pod

=head1 NAME

Data::UUID - B<OSSP uuid> Backward Compatibility Perl Binding

=head1 DESCRIPTION

B<Data::UUID> is the B<OSSP uuid> backward compatibility Perl binding to the API of the original B<Data::UUID> module. It allows other B<Data::UUID> based Perl modules to run with B<OSSP::uuid> without changes.

=head1 SEE ALSO

B<OSSP::uuid>.

=head1 HISTORY

The backward compatibility Perl binding B<Data::UUID> for B<OSSP uuid> was originally implemented in 2004 by Piotr Roszatycki

E<lt>dexter@debian.orgE<gt>. It was later cleaned up and speed optimized in December 2005 by David Wheeler E<lt>david@justatheory.comE<gt>.

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid\_compat.pod

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\*\* OSSP uuid - Universally Unique Identifier

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\*\*

\*\* This file is part of OSSP uuid, a library for the generation

\*\* of UUIDs which can found at <http://www.ossproject.org/pkg/lib/uuid/>

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\*\*

\*\* uuid\_prng.h: PRNG API definition

\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_prng.h

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##

## OSSP uuid - Universally Unique Identifier

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##

## This file is part of OSSP uuid, a library for the generation



```
of UUIDs which can found at http://www.ossfp.org/pkg/lib/uuid/
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SUCH DAMAGE.
##
uuid.pod: Perl Binding (Perl/POD part)
##
```

=pod

=head1 NAME

OSSP::uuid - B<OSSP uuid> Perl Binding

=head1 DESCRIPTION

B<OSSP uuid> is a ISO-C:1999 application programming interface (API) and corresponding command line interface (CLI) for the generation of DCE 1.1, ISO/IEC 11578:1996 and RFC 4122 compliant I<Universally Unique Identifier> (UUID). It supports DCE 1.1 variant UUIDs of version 1 (time and node based), version 3 (name based, MD5), version 4 (random number based) and version 5 (name based, SHA-1). Additional API bindings are provided for the languages ISO-C++:1998, Perl:5 and PHP:4/5. Optional backward compatibility exists for the ISO-C DCE-1.1 and Perl Data::UUID APIs.

B<OSSP::uuid> is the Perl binding to the B<OSSP uuid> API.

Three variants are provided:

=head2 TIE-STYLE API

The TIE-style API is a functionality-reduced wrapper around the OO-style API and intended for very high-level convenience programming:

=over 4

```
=item C<use OSSP::uuid;>
```

```
=item B<tie>C< my $uuid, 'OSSP::uuid::tie', $mode, ...;>
```

```
=item C<$uuid = [$mode, ...];>
```

```
=item C<print "UUID=$uuid\n";>
```

```
=item C<untie $uuid;>
```

=back

=head2 OO-STYLE API

The OO-style API is a wrapper around the C-style API and intended for high-level regular programming.

=over 4

```
=item C<use OSSP::uuid;>
```

```
=item C<my $uuid = >B<new>C< OSSP::uuid;>
```

```
=item C<$uuid-E<gt>>B<load>C<($name);>
```

```
=item C<$uuid-E<gt>>B<make>C<($mode, ...);>
```

```
=item C<$result = $uuid-E<gt>>B<isnil>C<();>
```

```
=item C<$result = $uuid-E<gt>>B<compare>C<($uuid2);>
```

```
=item C<$uuid-E<gt>>B<import>C<($fmt, $data_ptr);>
```

```
=item C<$data_ptr = $uuid-E<gt>>B<export>C<($fmt);>
```

```
=item C<[($str[, $rc]) = $uuid-E<gt>>B<error>C<();>
```

```
=item C<$ver = $uuid-E<gt>>B<version>C<();>
```

```
=item C<undef $uuid;>
```

=back

Additionally, the strings C<"v1">, C<"v3">, C<"v4">, C<"v5"> and C<"mc"> can be used in C<\$mode> and the strings C<"bin">, C<"str">, and C<"txt">

can be used for C<\$fmt>.

=head2 C-STYLE API

The C-style API is a direct mapping of the B<OSSP uuid> ISO-C API to Perl and is intended for low-level programming. See uuid(3) for a description of the functions and their expected arguments.

=over 4

=item C<use OSSP::uuid qw(:all);>

=item C<my \$uuid; \$rc = >B<uuid\_create>C<(\$uuid);>

=item C<\$rc = >B<uuid\_load>C<(\$uuid, \$name);>

=item C<\$rc = >B<uuid\_make>C<(\$uuid, \$mode, ...);>

=item C<\$rc = >B<uuid\_isnil>C<(\$uuid, \$result);>

=item C<\$rc = >B<uuid\_compare>C<(\$uuid, \$uuid2, \$result);>

=item C<\$rc = >B<uuid\_import>C<(\$uuid, \$fmt, \$data\_ptr, \$data\_len);>

=item C<\$rc = >B<uuid\_export>C<(\$uuid, \$fmt, \$data\_ptr, \$data\_len);>

=item C<\$str = >B<uuid\_error>C<(\$rc);>

=item C<\$ver = >B<uuid\_version>C<();>

=item C<\$rc = >B<uuid\_destroy>C<(\$uuid);>

=back

Additionally, the following constants are exported for use in C<\$rc>, C<\$mode>, C<\$fmt> and C<\$ver>:

C<UUID\_VERSION>,  
C<UUID\_LEN\_BIN>,  
C<UUID\_LEN\_STR>,  
C<UUID\_RC\_OK>,  
C<UUID\_RC\_ARG>,  
C<UUID\_RC\_MEM>,  
C<UUID\_RC\_SYS>,  
C<UUID\_RC\_INT>,  
C<UUID\_RC\_IMP>,  
C<UUID\_MAKE\_V1>,  
C<UUID\_MAKE\_V3>,

```
C<UUID_MAKE_V4>,
C<UUID_MAKE_V5>,
C<UUID_MAKE_MC>,
C<UUID_FMT_BIN>,
C<UUID_FMT_STR>,
C<UUID_FMT_SIV>,
C<UUID_FMT_TXT>.
```

=head1 EXAMPLES

The following two examples create the version 3 UUID  
C<02d9e6d5-9467-382e-8f9b-9300a64ac3cd>, both via the OO-style and the  
C-style API. Error handling is omitted here for easier reading, but has  
to be added for production-quality code.

```
TIE-style API (very high-level)
use OSSP::uuid;
tie my $uuid, 'OSSP::uuid::tie';
$uuid = ["v1"];
print "UUIDs: $uuid, $uuid, $uuid\n";
$uuid = ["v3", "ns:URL", "http://www.oss.org/"];
print "UUIDs: $uuid, $uuid, $uuid\n";
untie $uuid;

OO-style API (high-level)
use OSSP::uuid;
my $uuid = new OSSP::uuid;
my $uuid_ns = new OSSP::uuid;
$uuid_ns->load("ns:URL");
$uuid->make("v3", $uuid_ns, "http://www.oss.org/");
undef $uuid_ns;
my $str = $uuid->export("str");
undef $uuid;
print "$str\n";

C-style API (low-level)
use OSSP::uuid qw(:all);
my $uuid; uuid_create($uuid);
my $uuid_ns; uuid_create($uuid_ns);
uuid_load($uuid_ns, "ns:URL");
uuid_make($uuid, UUID_MAKE_V3, $uuid_ns, "http://www.oss.org/");
uuid_destroy($uuid_ns);
my $str; uuid_export($uuid, UUID_FMT_STR, $str, undef);
uuid_destroy($uuid);
print "$str\n";
```

=head1 SEE ALSO

uuid(1), uuid-config(1), uuid(3).

=head1 HISTORY

The Perl binding B<OSSP::uuid> to B<OSSP uuid> was implemented in November 2004 by Ralf S. Engelschall E<lt>rse@engelschall.comE<gt>.

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid.pod

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\*\* OSSP ui128 - 128-Bit Arithmetic

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\*\* ui128.h: API declaration

\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_ui128.h

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##

## OSSP uuid - Universally Unique Identifier

```
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##
This file is part of OSSP uuid, a library for the generation
of UUIDs which can found at http://www.oss.org/pkg/lib/uuid/
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##
uuid.pod: manual page
##
```

=pod

=head1 NAME

B<uuid> - B<Universally Unique Identifier>

=head1 VERSION

OSSP uuid UUID\_VERSION\_STR

=head1 DESCRIPTION

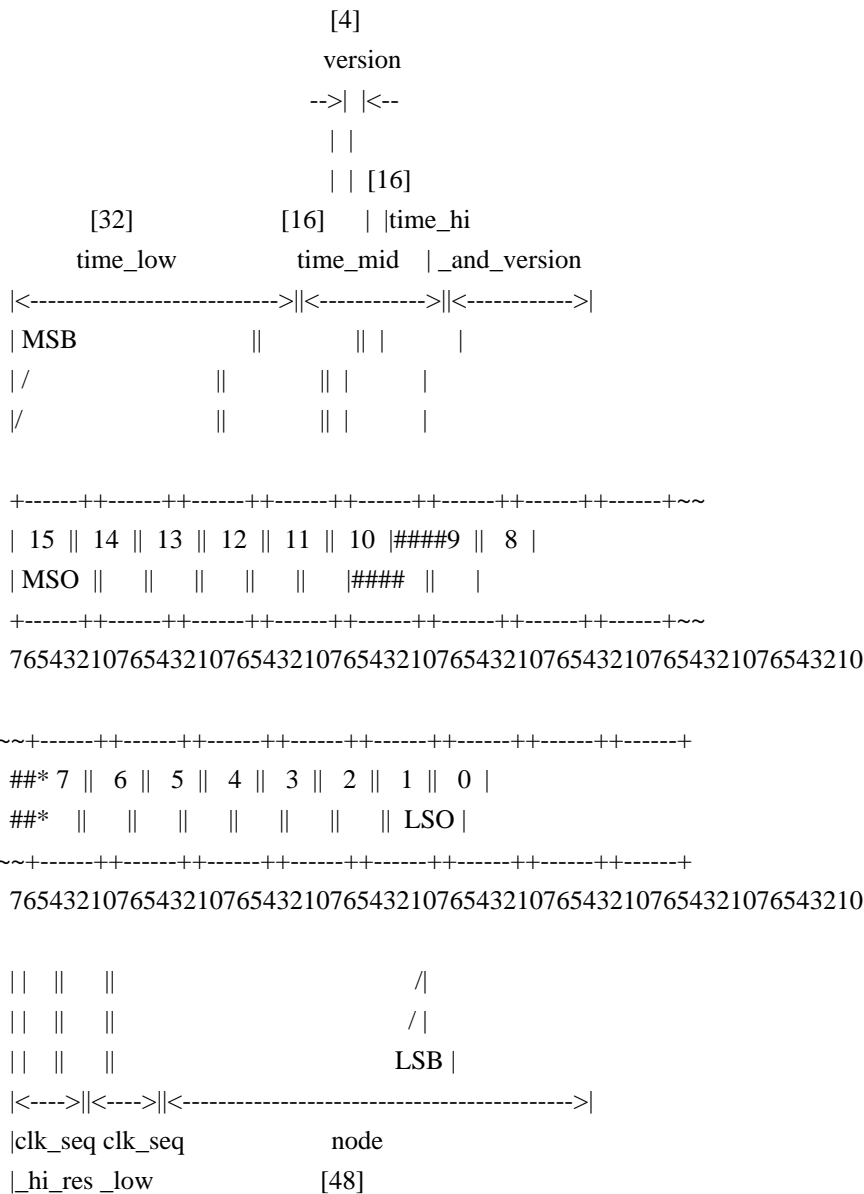
B<OSSP uuid> is a ISO-C:1999 application programming interface (API) and corresponding command line interface (CLI) for the generation of DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 compliant I<Universally Unique Identifier> (UUID). It supports DCE 1.1 variant UUIDs of version 1 (time and node based), version 3 (name based, MD5), version 4 (random number based) and version 5 (name based, SHA-1). Additional API bindings are provided for the languages ISO-C++:1998, Perl:5 and PHP:4/5. Optional backward compatibility exists for the ISO-C DCE-1.1 and Perl Data::UUID APIs.

UUIDs are 128 bit numbers which are intended to have a high likelihood of uniqueness over space and time and are computationally difficult to guess. They are globally unique identifiers which can be locally generated without contacting a global registration authority. UUIDs are intended as unique identifiers for both mass tagging objects with an extremely short lifetime and to reliably identifying very persistent objects across a network.

This is the ISO-C application programming interface (API) of B<OSSP uuid>.

=head2 UUID Binary Representation

According to the DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 standards, a DCE 1.1 variant UUID is a 128 bit number defined out of 7 fields, each field a multiple of an octet in size and stored in network byte order:



```
||[5-6] [8]
||
-->|<--
variant
[2-3]
```

An example of a UUID binary representation is the octet stream C<0xF8 0x1D 0x4F 0xAE 0x7D 0xEC 0x11 0xD0 0xA7 0x65 0x00 0xA0 0xC9 0x1E 0x6B 0xF6>. The binary representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_BIN>.

#### =head2 UUID ASCII String Representation

According to the DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 standards, a DCE 1.1 variant UUID is represented as an ASCII string consisting of 8 hexadecimal digits followed by a hyphen, then three groups of 4 hexadecimal digits each followed by a hyphen, then 12 hexadecimal digits. Formally, the string representation is defined by the following grammar:

```
uuid = <time_low> "-"
 <time_mid> "-"
 <time_high_and_version> "-"
 <clock_seq_high_and_reserved>
 <clock_seq_low> "-"
 <node>
time_low = 4*<hex_octet>
time_mid = 2*<hex_octet>
time_high_and_version = 2*<hex_octet>
clock_seq_high_and_reserved = <hex_octet>
clock_seq_low = <hex_octet>
node = 6*<hex_octet>
hex_octet = <hex_digit> <hex_digit>
hex_digit = "0"|"1"|"2"|"3"|"4"|"5"|"6"|"7"|"8"|"9"
 |"a"|"b"|"c"|"d"|"e"|"f"
 |"A"|"B"|"C"|"D"|"E"|"F"
```

An example of a UUID string representation is the ASCII string "C<f81d4fae-7dec-11d0-a765-00a0c91e6bf6>". The string representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_STR>.

Notice: a corresponding URL can be generated out of a ASCII string representation of an UUID by prefixing with "C<urn:uuid:>" as in "C<urn:uuid:f81d4fae-7dec-11d0-a765-00a0c91e6bf6>".

#### =head2 UUID Single Integer Value Representation



According to the ISO/IEC 11578:1996 and ITU-T Rec. X.667 standards, a DCE 1.1 variant UUID can be also represented as a single integer value consisting of a decimal number with up to 39 digits.

An example of a UUID single integer value representation is the decimal number "C<329800735698586629295641978511506172918>". The string representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_SIV>.

Notice: a corresponding ISO OID can be generated under the "{joint-iso-itu-t(2) uuid(25)}" arc out of a single integer value representation of a UUID by prefixing with "C<2.25.>". An example OID is "C<2.25.329800735698586629295641978511506172918>". Additionally, an URL can be generated by further prefixing with "C<urn:oid:>" as in "C<urn:oid:2.25.329800735698586629295641978511506172918>".

## =head2 UUID Variants and Versions

A UUID has a variant and version. The variant defines the layout of the UUID. The version defines the content of the UUID. The UUID variant supported in B<OSSP uuid> is the DCE 1.1 variant only. The DCE 1.1 UUID variant versions supported in B<OSSP uuid> are:

=over 4

=item B<Version 1> (time and node based)

These are the classical UUIDs, created out of a 60-bit system time, a 14-bit local clock sequence and 48-bit system MAC address. The MAC address can be either the real one of a physical network interface card (NIC) or a random multi-cast MAC address. Version 1 UUIDs are usually used as one-time global unique identifiers.

=item B<Version 3> (name based, MD5)

These are UUIDs which are based on the 128-bit MD5 message digest of the concatenation of a 128-bit namespace UUID and a name string of arbitrary length. Version 3 UUIDs are usually used for non-unique but repeatable message digest identifiers.

=item B<Version 4> (random data based)

These are UUIDs which are based on just 128-bit of random data. Version 4 UUIDs are usually used as one-time local unique identifiers.

=item B<Version 5> (name based, SHA-1)

These are UUIDs which are based on the 160-bit SHA-1 message digest of the concatenation of a 128-bit namespace UUID and a name string of arbitrary length. Version 5 UUIDs are usually used for non-unique but repeatable message digest identifiers.

=back

=head2 UUID Uniqueness

Version 1 UUIDs are guaranteed to be unique through combinations of hardware addresses, time stamps and random seeds. There is a reference in the UUID to the hardware (MAC) address of the first network interface card (NIC) on the host which generated the UUID -- this reference is intended to ensure the UUID will be unique in space as the MAC address of every network card is assigned by a single global authority (IEEE) and is guaranteed to be unique. The next component in a UUID is a timestamp which, as clock always (should) move forward, will be unique in time. Just in case some part of the above goes wrong (the hardware address cannot be determined or the clock moved steps backward), there is a random clock sequence component placed into the UUID as a "catch-all" for uniqueness.

Version 3 and version 5 UUIDs are guaranteed to be inherently globally unique if the combination of namespace and name used to generate them is unique.

Version 4 UUIDs are not guaranteed to be globally unique, because they are generated out of locally gathered pseudo-random numbers only. Nevertheless there is still a high likelihood of uniqueness over space and time and that they are computationally difficult to guess.

=head2 Nil UUID

There is a special I<Nil> UUID consisting of all octets set to zero in the binary representation. It can be used as a special UUID value which does not conflict with real UUIDs.

=head1 APPLICATION PROGRAMMING INTERFACE

The ISO-C Application Programming Interface (API) of B<OSSP uuid> consists of the following components.

=head2 CONSTANTS

The following constants are provided:

=over 4

=item B<UUID\_VERSION>

The hexadecimal encoded B<OSSP uuid> version. This allows compile-time checking of the B<OSSP uuid> version. For run-time checking use B<uuid\_version>() instead.

The hexadecimal encoding for a version "\$I<v>.\$I<r>\$I<t>\$I<l>" is calculated with the B<GNU shtool> B<version> command and is (in Perl-style for concise description) "sprintf('0x%x%02x%d%02x', \$I<v>, \$I<r>, {qw(s 9 . 2 b 1 a 0)}->{\$I<t>}, (\$I<t> eq 's' ? 99 : \$I<l>))", i.e., the version 0.9.6 is encoded as "0x009206".

=item B<UUID\_LEN\_BIN>, B<UUID\_LEN\_STR>, B<UUID\_LEN\_SIV>

The number of octets of the UUID binary and string representations. Notice that the lengths of the string representation (B<UUID\_LEN\_STR>) and the lengths of the single integer value representation (B<UUID\_LEN\_SIV>) does I<not> include the necessary C<NUL> termination character.

=item B<UUID\_MAKE\_V1>, B<UUID\_MAKE\_V3>, B<UUID\_MAKE\_V4>, B<UUID\_MAKE\_V5>, B<UUID\_MAKE\_MC>

The I<mode> bits for use with B<uuid\_make>(). The B<UUID\_MAKE\_V>I<N> specify which UUID version to generate. The B<UUID\_MAKE\_MC> forces the use of a random multi-cast MAC address instead of the real physical MAC address in version 1 UUIDs.

=item B<UUID\_RC\_OK>, B<UUID\_RC\_ARG>, B<UUID\_RC\_MEM>, B<UUID\_RC\_SYS>, B<UUID\_RC\_INT>, B<UUID\_RC\_IMP>

The possible numerical return-codes of API functions. The C<UUID\_RC\_OK> indicates success, the others indicate errors. Use B<uuid\_error>() to translate them into string versions.

=item B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV>, B<UUID\_FMT\_TXT>

The I<fmt> formats for use with B<uuid\_import>() and B<uuid\_export>(). The B<UUID\_FMT\_BIN> indicates the UUID binary representation (of length B<UUID\_LEN\_BIN>), the B<UUID\_FMT\_STR> indicates the UUID string representation (of length B<UUID\_LEN\_STR>), the B<UUID\_FMT\_SIV> indicates the UUID single integer value representation (of maximum length B<UUID\_LEN\_SIV>) and the B<UUID\_FMT\_TXT> indicates the textual description (of arbitrary length) of a UUID.

=back

=head2 FUNCTIONS

The following functions are provided:

=over 4

```
=item uuid_rc_t B<uuid_create>(uuid_t **I<uuid>);
```

Create a new UUID object and store a pointer to it in C<\*>I<uuid>. A UUID object consists of an internal representation of a UUID, the internal PRNG and MD5 generator contexts, and cached MAC address and timestamp information. The initial UUID is the I<Nil> UUID.

```
=item uuid_rc_t B<uuid_destroy>(uuid_t *I<uuid>);
```

Destroy UUID object I<uuid>.

```
=item uuid_rc_t B<uuid_clone>(const uuid_t *I<uuid>, uuid_t **I<uuid_clone>);
```

Clone UUID object I<uuid> and store new UUID object in I<uuid\_clone>.

```
=item uuid_rc_t B<uuid_isnil>(const uuid_t *I<uuid>, int *I<result>);
```

Checks whether the UUID in I<uuid> is the I<Nil> UUID.

If this is the case, it returns I<true> in C<\*>I<result>.

Else it returns I<false> in C<\*>I<result>.

```
=item uuid_rc_t B<uuid_compare>(const uuid_t *I<uuid>, const uuid_t *I<uuid2>, int *I<result>);
```

Compares the order of the two UUIDs in I<uuid1> and I<uuid2> and returns the result in C<\*>I<result>: C<-1> if I<uuid1> is smaller than I<uuid2>, C<0> if I<uuid1> is equal to I<uuid2> and C<+1> if I<uuid1> is greater than I<uuid2>.

```
=item uuid_rc_t B<uuid_import>(uuid_t *I<uuid>, uuid_fmt_t I<fmt>, const void *I<data_ptr>, size_t I<data_len>);
```

Imports a UUID I<uuid> from an external representation of format I<fmt>.

The data is read from the buffer at I<data\_ptr> which contains at least I<data\_len> bytes.

The format of the external representation is specified by I<fmt> and the minimum expected length in I<data\_len> depends on it. Valid values for I<fmt> are B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR> and B<UUID\_FMT\_SIV>.

```
=item uuid_rc_t B<uuid_export>(const uuid_t *I<uuid>, uuid_fmt_t I<fmt>, void *I<data_ptr>, size_t *I<data_len>);
```

Exports a UUID I<uuid> into an external representation of format

I<fmt>. Valid values for I<fmt> are B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV> and B<UUID\_FMT\_TXT>.

The data is written to the buffer whose location is obtained by dereferencing I<data\_ptr> after a "cast" to the appropriate pointer-to-pointer type. Hence the generic pointer argument I<data\_ptr> is expected to be a pointer to a "pointer of a particular type", i.e., it has to be of type "C<unsigned char \*\*>" for B<UUID\_FMT\_BIN> and "C<char \*\*>" for B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV> and B<UUID\_FMT\_TXT>.

The buffer has to be room for at least C<\*>I<data\_len> bytes. If the value of the pointer after "casting" and dereferencing I<data\_ptr> is C<NULL>, I<data\_len> is ignored as input and a new buffer is allocated and returned in the pointer after "casting" and dereferencing I<data\_ptr> (the caller has to free(3) it later on).

If I<data\_len> is not C<NULL>, the number of available bytes in the buffer has to be provided in C<\*>I<data\_len> and the number of actually written bytes are returned in C<\*>I<data\_len> again. The minimum required buffer length depends on the external representation as specified by I<fmt> and is at least B<UUID\_LEN\_BIN> for B<UUID\_FMT\_BIN>, B<UUID\_LEN\_STR> for B<UUID\_FMT\_STR> and B<UUID\_LEN\_SIV> for B<UUID\_FMT\_SIV>. For B<UUID\_FMT\_TXT> a buffer of unspecified length is required and hence it is recommended to allow B<OSSP uuid> to allocate the buffer as necessary.

```
=item uuid_rc_t B<uuid_load>(uuid_t *I<uuid>, const char *I<name>);
```

Loads a pre-defined UUID value into the UUID object I<uuid>. The following I<name> arguments are currently known:

```
=over 4
```

```
=item I<name> I<UUID>
```

```
=item nil 00000000-0000-0000-0000-000000000000
```

```
=item ns:DNS 6ba7b810-9dad-11d1-80b4-00c04fd430c8
```

```
=item ns:URL 6ba7b811-9dad-11d1-80b4-00c04fd430c8
```

```
=item ns:OID 6ba7b812-9dad-11d1-80b4-00c04fd430c8
```

```
=item ns:X500 6ba7b814-9dad-11d1-80b4-00c04fd430c8
```

```
=back
```

The "C<ns:>I<XXX>" are names of pre-defined name-space UUIDs for use in

the generation of DCE 1.1 version 3 and version 5 UUIDs.

```
=item uuid_rc_t B<uuid_make>(uuid_t *I<uuid>, unsigned int I<mode>, ...);
```

Generates a new UUID in I<uuid> according to I<mode> and optional arguments (dependent on I<mode>).

If I<mode> contains the C<UUID\_MAKE\_V1> bit, a DCE 1.1 variant UUID of version 1 is generated. Then optionally the bit C<UUID\_MAKE\_MC> forces the use of random multi-cast MAC address instead of the real physical MAC address (the default). The UUID is generated out of the 60-bit current system time, a 12-bit clock sequence and the 48-bit MAC address.

If I<mode> contains the C<UUID\_MAKE\_V3> or C<UUID\_MAKE\_V5> bit, a DCE 1.1 variant UUID of version 3 or 5 is generated and two additional arguments are expected: first, a namespace UUID object (C<uuid\_t \*>). Second, a name string of arbitrary length (C<const char \*>). The UUID is generated out of the 128-bit MD5 or 160-bit SHA-1 from the concatenated octet stream of namespace UUID and name string.

If I<mode> contains the C<UUID\_MAKE\_V4> bit, a DCE 1.1 variant UUID of version 4 is generated. The UUID is generated out of 128-bit random data.

```
=item char *B<uuid_error>(uuid_rc_t I<rc>);
```

Returns a constant string representation corresponding to the return-code I<rc> for use in displaying B<OSSP uuid> errors.

```
=item unsigned long B<uuid_version>(void);
```

Returns the hexadecimal encoded B<OSSP uuid> version as compiled into the library object files. This allows run-time checking of the B<OSSP uuid> version. For compile-time checking use C<UUID\_VERSION> instead.

```
=back
```

```
=head1 EXAMPLE
```

The following shows an example usage of the API. Error handling is omitted for code simplification and has to be re-added for production code.

```
/* generate a DCE 1.1 v1 UUID from system environment */
char *uuid_v1(void)
{
 uuid_t *uuid;
 char *str;
```

```

 uuid_create(&uuid);
 uuid_make(uuid, UUID_MAKE_V1);
 str = NULL;
 uuid_export(uuid, UUID_FMT_STR, &str, NULL);
 uuid_destroy(uuid);
 return str;
}

/* generate a DCE 1.1 v3 UUID from an URL */
char *uuid_v3(const char *url)
{
 uuid_t *uuid;
 uuid_t *uuid_ns;
 char *str;

 uuid_create(&uuid);
 uuid_create(&uuid_ns);
 uuid_load(uuid_ns, "ns:URL");
 uuid_make(uuid, UUID_MAKE_V3, uuid_ns, url);
 str = NULL;
 uuid_export(uuid, UUID_FMT_STR, &str, NULL);
 uuid_destroy(uuid_ns);
 uuid_destroy(uuid);
 return str;
}

```

=head1 SEE ALSO

The following are references to B<UUID> documentation and specifications:

=over 4

=item

B<A Universally Unique Identifier (UUID) URN Namespace>,  
P. Leach, M. Mealling, R. Salz,  
IETF RFC-4122,  
July 2005, 32 pages,  
<http://www.ietf.org/rfc/rfc4122.txt>

=item

Information Technology -- Open Systems Interconnection (OSI),  
B<Procedures for the operation of OSI Registration Authorities:  
Generation and Registration of Universally Unique Identifiers (UUIDs)  
and their Use as ASN.1 Object Identifier Components>,  
ISO/IEC 9834-8:2004 / ITU-T Rec. X.667, 2004,

December 2004, 25 pages,  
<http://www.itu.int/ITU-T/studygroups/com17/oid/X.667-E.pdf>

=item

B<DCE 1.1: Remote Procedure Call>,  
appendix B<Universally Unique Identifier>,  
Open Group Technical Standard  
Document Number C706, August 1997, 737 pages,  
(supersedes C309 DCE: Remote Procedure Call 8/1994,  
which was basis for ISO/IEC 11578:1996 specification),  
<http://www.opengroup.org/publications/catalog/c706.htm>

=item

Information technology -- Open Systems Interconnection (OSI),  
B<Remote Procedure Call (RPC)>,  
ISO/IEC 11578:1996,  
August 2001, 570 pages, (CHF 340,00),  
<http://www.iso.ch/cate/d2229.html>

=item

B<HTTP Extensions for Distributed Authoring (WebDAV)>,  
section B<6.4.1 Node Field Generation Without the IEEE 802 Address>,  
IETF RFC-2518,  
February 1999, 94 pages,  
<http://www.ietf.org/rfc/rfc2518.txt>

=item

B<DCE 1.1 compliant UUID functions>,  
FreeBSD manual pages `uuid(3)` and `uuidgen(2)`,  
<http://www.freebsd.org/cgi/man.cgi?query=uuid&manpath=FreeBSD+6.0-RELEASE>

=back

=head1 HISTORY

B<OSSP `uuid`> was implemented in January 2004 by Ralf S. Engelschall  
`E<lt>rse@engelschall.comE<gt>`. It was prompted by the use of UUIDs  
in the B<OSSP `as`> and B<OpenPKG> projects. It is a clean room  
implementation intended to be strictly standards compliant and maximum  
portable.

=head1 SEE ALSO

`uuid(1)`, `uuid-config(1)`, `OSSP::uuid(3)`.



=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid.pod

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SUCH DAMAGE.
##
uuid.pc.in: pkg-config(1) specification
##
```

```
prefix=@prefix@
exec_prefix=${prefix}
includedir=${prefix}/include
libdir=${exec_prefix}/lib
```

```
Name: OSSP uuid
Description: Universally Unique Identifier (UUID) Library
Version: @UUID_VERSION_RAW@
URL: http://www.ossproject.org/pkg/lib/uuid/
Cflags: -I${includedir}
Libs: -L${libdir} -luuid
Libs.private: @LIBS@
```

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0001-Change-library-name.patch/uuid.pc.in

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-- SUCH DAMAGE.
--
-- uuid.sql: PostgreSQL Binding (SQL part)
--
--
-- prolog
--
SET search_path TO public;
SET client_min_messages TO warning;

DROP FUNCTION uuid_in(CSTRING) CASCADE;
DROP FUNCTION uuid_out(uuid) CASCADE;
DROP FUNCTION uuid_recv(INTERNAL) CASCADE;
DROP FUNCTION uuid_send(uuid) CASCADE;
DROP TYPE uuid CASCADE;
DROP CAST (CSTRING AS uuid) CASCADE;
```

```

DROP CAST (uuid AS CSTRING) CASCADE;

DROP FUNCTION uuid(CSTRING) CASCADE;
DROP FUNCTION uuid(INTEGER) CASCADE;
DROP FUNCTION uuid(INTEGER, CSTRING, CSTRING) CASCADE;

DROP FUNCTION uuid_eq(uuid) CASCADE;
DROP FUNCTION uuid_ne(uuid) CASCADE;
DROP FUNCTION uuid_lt(uuid, uuid) CASCADE;
DROP FUNCTION uuid_gt(uuid, uuid) CASCADE;
DROP FUNCTION uuid_le(uuid, uuid) CASCADE;
DROP FUNCTION uuid_ge(uuid, uuid) CASCADE;
DROP OPERATOR =(uuid,uuid) CASCADE;
DROP OPERATOR <>(uuid,uuid) CASCADE;
DROP OPERATOR <(uuid,uuid) CASCADE;
DROP OPERATOR >(uuid,uuid) CASCADE;
DROP OPERATOR <=(uuid,uuid) CASCADE;
DROP OPERATOR >=(uuid,uuid) CASCADE;

DROP FUNCTION uuid_hash(uuid) CASCADE;
DROP FUNCTION uuid_cmp(uuid, uuid) CASCADE;
DROP OPERATOR CLASS uuid_ops USING hash CASCADE;
DROP OPERATOR CLASS uuid_ops USING btree CASCADE;

BEGIN;

--
-- the UUID data type
--

CREATE FUNCTION
 uuid_in(CSTRING) RETURNS uuid
 STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_in';

CREATE FUNCTION
 uuid_out(uuid) RETURNS CSTRING
 STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_out';

CREATE FUNCTION
 uuid_recv(INTERNAL) RETURNS uuid
 STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_recv';

CREATE FUNCTION
 uuid_send(uuid) RETURNS BYTEA
 STRICT

```

```

LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_send';

CREATE TYPE uuid (
 INPUT = uuid_in, -- for SQL input
 OUTPUT = uuid_out, -- for SQL output
 RECEIVE = uuid_recv, -- for DB input
 SEND = uuid_send, -- for DB output
 DEFAULT = 'uuid(1)',
 INTERNALLENGTH = 16,
 ALIGNMENT = char
);

COMMENT ON TYPE uuid
 IS 'UUID type';

-- CREATE CAST (CSTRING AS uuid)
-- WITH FUNCTION uuid_in(CSTRING) AS ASSIGNMENT;
--
-- CREATE CAST (uuid AS CSTRING)
-- WITH FUNCTION uuid_out(uuid) AS ASSIGNMENT;
--
--
-- the UUID constructor function
--

CREATE FUNCTION
 uuid(CSTRING) RETURNS uuid
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_in';

CREATE FUNCTION
 uuid(INTEGER) RETURNS uuid
 VOLATILE CALLED ON NULL INPUT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_make';

CREATE FUNCTION
 uuid(INTEGER, CSTRING, CSTRING) RETURNS uuid
 VOLATILE CALLED ON NULL INPUT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_make';

--
-- the UUID operators
--

CREATE FUNCTION
 uuid_eq(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_eq';

```

```
CREATE FUNCTION
 uuid_ne(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_ne';
```

```
CREATE FUNCTION
 uuid_lt(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_lt';
```

```
CREATE FUNCTION
 uuid_gt(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_gt';
```

```
CREATE FUNCTION
 uuid_le(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_le';
```

```
CREATE FUNCTION
 uuid_ge(uuid, uuid) RETURNS BOOL
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_ge';
```

```
CREATE OPERATOR = (
 leftarg = uuid,
 rightarg = uuid,
 negator = <>,
 procedure = uuid_eq
);
```

```
CREATE OPERATOR <> (
 leftarg = uuid,
 rightarg = uuid,
 negator = =,
 procedure = uuid_ne
);
```

```
CREATE OPERATOR < (
 leftarg = uuid,
 rightarg = uuid,
 commutator = >,
 negator = >=,
 procedure = uuid_lt
);
```

```
CREATE OPERATOR > (
 leftarg = uuid,
 rightarg = uuid,
 commutator = <,
 negator = <=,
 procedure = uuid_gt
);
```

```
CREATE OPERATOR <= (
 leftarg = uuid,
 rightarg = uuid,
 commutator = >=,
 negator = >,
 procedure = uuid_le
);
```

```
CREATE OPERATOR >= (
 leftarg = uuid,
 rightarg = uuid,
 commutator = <=,
 negator = <,
 procedure = uuid_ge
);
```

```
--
-- the UUID support for indexing
--
```

```
CREATE FUNCTION
 uuid_hash(uuid) RETURNS INTEGER
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_hash';
```

```
CREATE FUNCTION
 uuid_cmp(uuid, uuid) RETURNS INTEGER
 IMMUTABLE STRICT
 LANGUAGE C AS 'MODULE_PATHNAME', 'pg_uuid_cmp';
```

```
CREATE OPERATOR CLASS uuid_ops
 DEFAULT FOR TYPE uuid USING hash AS
 OPERATOR 1 =, -- 1: equal
 FUNCTION 1 uuid_hash(uuid);
```

```
CREATE OPERATOR CLASS uuid_ops
 DEFAULT FOR TYPE uuid USING btree AS
 OPERATOR 1 <, -- 1: less than
 OPERATOR 2 <=, -- 2: less than or equal
 OPERATOR 3 =, -- 3: equal
```

OPERATOR 4 >=, -- 4: greater than or equal

OPERATOR 5 >, -- 5: greater than

FUNCTION 1 uuid\_cmp(uuid, uuid);

--

-- epilog

--

COMMIT;

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/pgsql/uuid.sql.in

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/\*

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\*\* uuid\_mac.h: Media Access Control (MAC) resolver API definition

\*/

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##
uuid.tm: Perl XS typemap for xsubpp(1)
##
```

#### TYPEMAP

```
uuid_t * T_PTRREF
uuid_t ** T_PTRREF
uuid_rc_t T_IV
uuid_fmt_t T_IV
int * T_PV
size_t * T_PV
const void * T_PV
void ** T_PV
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid.tm
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```
/*
```

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```
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**
** uuid_str.h: string formatting functions
*/
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid_str.h
```

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**
** uuid.xs: Perl Binding (Perl/XS part)
*/
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/perl/uuid.xs
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uuid.pod: manual page

=pod

=head1 NAME

B<OSSP uuid> - B<Universally Unique Identifier>

=head1 VERSION
```

## OSSP uuid UUID\_VERSION\_STR

### =head1 DESCRIPTION

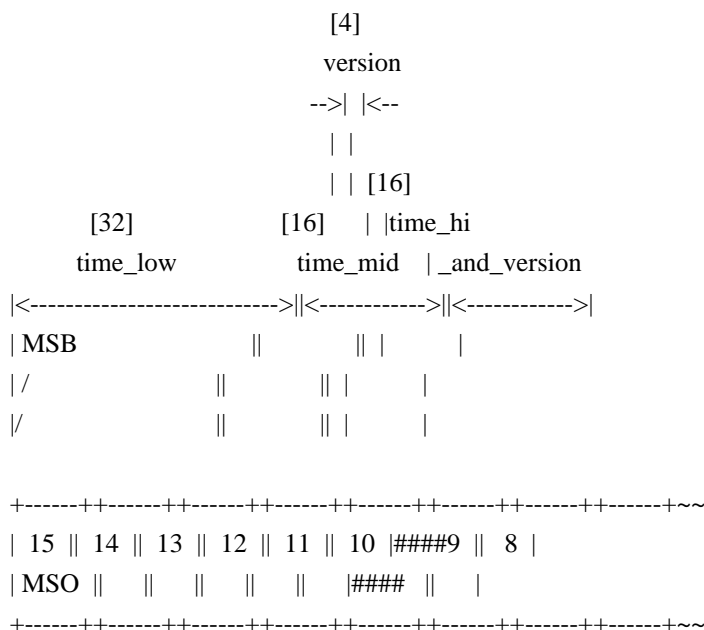
B<OSSP uuid> is a ISO-C:1999 application programming interface (API) and corresponding command line interface (CLI) for the generation of DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 compliant I<Universally Unique Identifier> (UUID). It supports DCE 1.1 variant UUIDs of version 1 (time and node based), version 3 (name based, MD5), version 4 (random number based) and version 5 (name based, SHA-1). Additional API bindings are provided for the languages ISO-C++:1998, Perl:5 and PHP:4/5. Optional backward compatibility exists for the ISO-C DCE-1.1 and Perl Data::UUID APIs.

UUIDs are 128 bit numbers which are intended to have a high likelihood of uniqueness over space and time and are computationally difficult to guess. They are globally unique identifiers which can be locally generated without contacting a global registration authority. UUIDs are intended as unique identifiers for both mass tagging objects with an extremely short lifetime and to reliably identifying very persistent objects across a network.

This is the ISO-C application programming interface (API) of B<OSSP uuid>.

### =head2 UUID Binary Representation

According to the DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 standards, a DCE 1.1 variant UUID is a 128 bit number defined out of 7 fields, each field a multiple of an octet in size and stored in network byte order:



7654321076543210765432107654321076543210765432107654321076543210

~+-----+-----+-----+-----+-----+-----+-----+-----+-----+

##\* 7 || 6 || 5 || 4 || 3 || 2 || 1 || 0 |  
##\* || || || || || || || LSO |

~+-----+-----+-----+-----+-----+-----+-----+-----+-----+

7654321076543210765432107654321076543210765432107654321076543210

					/
					/
					LSB

|<---->||<---->||<----->|

|clk\_seq clk\_seq node

|\_hi\_res\_low [48]

|[5-6] [8]

||

-->|<--

variant

[2-3]

An example of a UUID binary representation is the octet stream C<0xF8 0x1D 0x4F 0xAE 0x7D 0xEC 0x11 0xD0 0xA7 0x65 0x00 0xA0 0xC9 0x1E 0x6B 0xF6>. The binary representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_BIN>.

#### =head2 UUID ASCII String Representation

According to the DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 standards, a DCE 1.1 variant UUID is represented as an ASCII string consisting of 8 hexadecimal digits followed by a hyphen, then three groups of 4 hexadecimal digits each followed by a hyphen, then 12 hexadecimal digits. Formally, the string representation is defined by the following grammar:

```
uuid = <time_low> "-"
 <time_mid> "-"
 <time_high_and_version> "-"
 <clock_seq_high_and_reserved>
 <clock_seq_low> "-"
 <node>
time_low = 4*<hex_octet>
time_mid = 2*<hex_octet>
time_high_and_version = 2*<hex_octet>
clock_seq_high_and_reserved = <hex_octet>
clock_seq_low = <hex_octet>
node = 6*<hex_octet>
hex_octet = <hex_digit> <hex_digit>
```

```
hex_digit = "0"|"1"|"2"|"3"|"4"|"5"|"6"|"7"|"8"|"9"
 |"a"|"b"|"c"|"d"|"e"|"f"
 |"A"|"B"|"C"|"D"|"E"|"F"
```

An example of a UUID string representation is the ASCII string "C<f81d4fae-7dec-11d0-a765-00a0c91e6bf6>". The string representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_STR>.

Notice: a corresponding URL can be generated out of a ASCII string representation of an UUID by prefixing with "C<urn:uuid:>" as in "C<urn:uuid:f81d4fae-7dec-11d0-a765-00a0c91e6bf6>".

#### =head2 UUID Single Integer Value Representation

According to the ISO/IEC 11578:1996 and ITU-T Rec. X.667 standards, a DCE 1.1 variant UUID can be also represented as a single integer value consisting of a decimal number with up to 39 digits.

An example of a UUID single integer value representation is the decimal number "C<329800735698586629295641978511506172918>". The string representation format is exactly what the B<OSSP uuid> API functions B<uuid\_import>() and B<uuid\_export>() deal with under C<UUID\_FMT\_SIV>.

Notice: a corresponding ISO OID can be generated under the "{joint-iso-itu-t(2) uuid(25)}" arc out of a single integer value representation of a UUID by prefixing with "C<2.25.>". An example OID is "C<2.25.329800735698586629295641978511506172918>". Additionally, an URL can be generated by further prefixing with "C<urn:oid:>" as in "C<urn:oid:2.25.329800735698586629295641978511506172918>".

#### =head2 UUID Variants and Versions

A UUID has a variant and version. The variant defines the layout of the UUID. The version defines the content of the UUID. The UUID variant supported in B<OSSP uuid> is the DCE 1.1 variant only. The DCE 1.1 UUID variant versions supported in B<OSSP uuid> are:

=over 4

=item B<Version 1> (time and node based)

These are the classical UUIDs, created out of a 60-bit system time, a 14-bit local clock sequence and 48-bit system MAC address. The MAC address can be either the real one of a physical network interface card (NIC) or a random multi-cast MAC address. Version 1 UUIDs are usually used as one-time global unique identifiers.

=item B<Version 3> (name based, MD5)

These are UUIDs which are based on the 128-bit MD5 message digest of the concatenation of a 128-bit namespace UUID and a name string of arbitrary length. Version 3 UUIDs are usually used for non-unique but repeatable message digest identifiers.

=item B<Version 4> (random data based)

These are UUIDs which are based on just 128-bit of random data. Version 4 UUIDs are usually used as one-time local unique identifiers.

=item B<Version 5> (name based, SHA-1)

These are UUIDs which are based on the 160-bit SHA-1 message digest of the concatenation of a 128-bit namespace UUID and a name string of arbitrary length. Version 5 UUIDs are usually used for non-unique but repeatable message digest identifiers.

=back

=head2 UUID Uniqueness

Version 1 UUIDs are guaranteed to be unique through combinations of hardware addresses, time stamps and random seeds. There is a reference in the UUID to the hardware (MAC) address of the first network interface card (NIC) on the host which generated the UUID -- this reference is intended to ensure the UUID will be unique in space as the MAC address of every network card is assigned by a single global authority (IEEE) and is guaranteed to be unique. The next component in a UUID is a timestamp which, as clock always (should) move forward, will be unique in time. Just in case some part of the above goes wrong (the hardware address cannot be determined or the clock moved steps backward), there is a random clock sequence component placed into the UUID as a "catch-all" for uniqueness.

Version 3 and version 5 UUIDs are guaranteed to be inherently globally unique if the combination of namespace and name used to generate them is unique.

Version 4 UUIDs are not guaranteed to be globally unique, because they are generated out of locally gathered pseudo-random numbers only. Nevertheless there is still a high likelihood of uniqueness over space and time and that they are computationally difficult to guess.

=head2 Nil UUID

There is a special I<Nil> UUID consisting of all octets set to zero in

the binary representation. It can be used as a special UUID value which does not conflict with real UUIDs.

## =head1 APPLICATION PROGRAMMING INTERFACE

The ISO-C Application Programming Interface (API) of B<OSSP uuid> consists of the following components.

### =head2 CONSTANTS

The following constants are provided:

=over 4

=item B<UUID\_VERSION>

The hexadecimal encoded B<OSSP uuid> version. This allows compile-time checking of the B<OSSP uuid> version. For run-time checking use B<uuid\_version>() instead.

The hexadecimal encoding for a version "\$I<v>.\$I<r>\$I<t>\$I<l>" is calculated with the B<GNU shtool> B<version> command and is (in Perl-style for concise description) "sprintf('0x%x%02x%d%02x', \$I<v>, \$I<r>, {qw(s 9 . 2 b 1 a 0)}->{\$I<t>}, (\$I<t> eq 's' ? 99 : \$I<l>))", i.e., the version 0.9.6 is encoded as "0x009206".

=item B<UUID\_LEN\_BIN>, B<UUID\_LEN\_STR>, B<UUID\_LEN\_SIV>

The number of octets of the UUID binary and string representations. Notice that the lengths of the string representation (B<UUID\_LEN\_STR>) and the lengths of the single integer value representation (B<UUID\_LEN\_SIV>) does I<not> include the necessary C<NUL> termination character.

=item B<UUID\_MAKE\_V1>, B<UUID\_MAKE\_V3>, B<UUID\_MAKE\_V4>, B<UUID\_MAKE\_V5>, B<UUID\_MAKE\_MC>

The I<mode> bits for use with B<uuid\_make>(). The B<UUID\_MAKE\_V>I<N> specify which UUID version to generate. The B<UUID\_MAKE\_MC> forces the use of a random multi-cast MAC address instead of the real physical MAC address in version 1 UUIDs.

=item B<UUID\_RC\_OK>, B<UUID\_RC\_ARG>, B<UUID\_RC\_MEM>, B<UUID\_RC\_SYS>, B<UUID\_RC\_INT>, B<UUID\_RC\_IMP>

The possible numerical return-codes of API functions. The C<UUID\_RC\_OK> indicates success, the others indicate errors. Use B<uuid\_error>() to translate them into string versions.

=item B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV>, B<UUID\_FMT\_TXT>

The I<fmt> formats for use with B<uuid\_import>() and B<uuid\_export>().

The B<UUID\_FMT\_BIN> indicates the UUID binary representation (of length B<UUID\_LEN\_BIN>), the B<UUID\_FMT\_STR> indicates the UUID string representation (of length B<UUID\_LEN\_STR>), the B<UUID\_FMT\_SIV> indicates the UUID single integer value representation (of maximum length B<UUID\_LEN\_SIV>) and the B<UUID\_FMT\_TXT> indicates the textual description (of arbitrary length) of a UUID.

=back

=head2 FUNCTIONS

The following functions are provided:

=over 4

=item uuid\_rc\_t B<uuid\_create>(uuid\_t \*\*I<uuid>);

Create a new UUID object and store a pointer to it in C<\*>I<uuid>.

A UUID object consists of an internal representation of a UUID, the internal PRNG and MD5 generator contexts, and cached MAC address and timestamp information. The initial UUID is the I<Nil> UUID.

=item uuid\_rc\_t B<uuid\_destroy>(uuid\_t \*I<uuid>);

Destroy UUID object I<uuid>.

=item uuid\_rc\_t B<uuid\_clone>(const uuid\_t \*I<uuid>, uuid\_t \*\*I<uuid\_clone>);

Clone UUID object I<uuid> and store new UUID object in I<uuid\_clone>.

=item uuid\_rc\_t B<uuid\_isnil>(const uuid\_t \*I<uuid>, int \*I<result>);

Checks whether the UUID in I<uuid> is the I<Nil> UUID.

If this is the case, it returns I<true> in C<\*>I<result>.

Else it returns I<false> in C<\*>I<result>.

=item uuid\_rc\_t B<uuid\_compare>(const uuid\_t \*I<uuid>, const uuid\_t \*I<uuid2>, int \*I<result>);

Compares the order of the two UUIDs in I<uuid1> and I<uuid2>

and returns the result in C<\*>I<result>: C<-1> if I<uuid1> is smaller than I<uuid2>, C<0> if I<uuid1> is equal to I<uuid2> and C<+1> if I<uuid1> is greater than I<uuid2>.

=item uuid\_rc\_t B<uuid\_import>(uuid\_t \*I<uuid>, uuid\_fmt\_t I<fmt>, const void \*I<data\_ptr>, size\_t



I<data\_len>);

Imports a UUID I<uuid> from an external representation of format I<fmt>. The data is read from the buffer at I<data\_ptr> which contains at least I<data\_len> bytes.

The format of the external representation is specified by I<fmt> and the minimum expected length in I<data\_len> depends on it. Valid values for I<fmt> are B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR> and B<UUID\_FMT\_SIV>.

```
=item uuid_rc_t B<uuid_export>(const uuid_t *I<uuid>, uuid_fmt_t I<fmt>, void *I<data_ptr>, size_t *I<data_len>);
```

Exports a UUID I<uuid> into an external representation of format I<fmt>. Valid values for I<fmt> are B<UUID\_FMT\_BIN>, B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV> and B<UUID\_FMT\_TXT>.

The data is written to the buffer whose location is obtained by dereferencing I<data\_ptr> after a "cast" to the appropriate pointer-to-pointer type. Hence the generic pointer argument I<data\_ptr> is expected to be a pointer to a "pointer of a particular type", i.e., it has to be of type "C<unsigned char \*\*>" for B<UUID\_FMT\_BIN> and "C<char \*\*>" for B<UUID\_FMT\_STR>, B<UUID\_FMT\_SIV> and B<UUID\_FMT\_TXT>.

The buffer has to be room for at least C<\*>I<data\_len> bytes. If the value of the pointer after "casting" and dereferencing I<data\_ptr> is C<NULL>, I<data\_len> is ignored as input and a new buffer is allocated and returned in the pointer after "casting" and dereferencing I<data\_ptr> (the caller has to free(3) it later on).

If I<data\_len> is not C<NULL>, the number of available bytes in the buffer has to be provided in C<\*>I<data\_len> and the number of actually written bytes are returned in C<\*>I<data\_len> again. The minimum required buffer length depends on the external representation as specified by I<fmt> and is at least B<UUID\_LEN\_BIN> for B<UUID\_FMT\_BIN>, B<UUID\_LEN\_STR> for B<UUID\_FMT\_STR> and B<UUID\_LEN\_SIV> for B<UUID\_FMT\_SIV>. For B<UUID\_FMT\_TXT> a buffer of unspecified length is required and hence it is recommended to allow B<OSSP uuid> to allocate the buffer as necessary.

```
=item uuid_rc_t B<uuid_load>(uuid_t *I<uuid>, const char *I<name>);
```

Loads a pre-defined UUID value into the UUID object I<uuid>. The following I<name> arguments are currently known:

=over 4

```
=item I<name> I<UUID>
```

```

=item nil 00000000-0000-0000-0000-000000000000

=item ns:DNS 6ba7b810-9dad-11d1-80b4-00c04fd430c8

=item ns:URL 6ba7b811-9dad-11d1-80b4-00c04fd430c8

=item ns:OID 6ba7b812-9dad-11d1-80b4-00c04fd430c8

=item ns:X500 6ba7b814-9dad-11d1-80b4-00c04fd430c8

=back

```

The "C<ns:>I<XXX>" are names of pre-defined name-space UUIDs for use in the generation of DCE 1.1 version 3 and version 5 UUIDs.

```

=item uuid_rc_t B<uuid_make>(uuid_t *I<uuid>, unsigned int I<mode>, ...);

```

Generates a new UUID in I<uuid> according to I<mode> and optional arguments (dependent on I<mode>).

If I<mode> contains the C<UUID\_MAKE\_V1> bit, a DCE 1.1 variant UUID of version 1 is generated. Then optionally the bit C<UUID\_MAKE\_MC> forces the use of random multi-cast MAC address instead of the real physical MAC address (the default). The UUID is generated out of the 60-bit current system time, a 12-bit clock sequence and the 48-bit MAC address.

If I<mode> contains the C<UUID\_MAKE\_V3> or C<UUID\_MAKE\_V5> bit, a DCE 1.1 variant UUID of version 3 or 5 is generated and two additional arguments are expected: first, a namespace UUID object (C<uuid\_t \*>). Second, a name string of arbitrary length (C<const char \*>). The UUID is generated out of the 128-bit MD5 or 160-bit SHA-1 from the concatenated octet stream of namespace UUID and name string.

If I<mode> contains the C<UUID\_MAKE\_V4> bit, a DCE 1.1 variant UUID of version 4 is generated. The UUID is generated out of 128-bit random data.

```

=item char *B<uuid_error>(uuid_rc_t I<rc>);

```

Returns a constant string representation corresponding to the return-code I<rc> for use in displaying B<OSSP uuid> errors.

```

=item unsigned long B<uuid_version>(void);

```

Returns the hexadecimal encoded B<OSSP uuid> version as compiled into the library object files. This allows run-time checking of the B<OSSP uuid> version. For compile-time checking use C<UUID\_VERSION> instead.

=back

=head1 EXAMPLE

The following shows an example usage of the API. Error handling is omitted for code simplification and has to be re-added for production code.

```
/* generate a DCE 1.1 v1 UUID from system environment */
char *uuid_v1(void)
{
 uuid_t *uuid;
 char *str;

 uuid_create(&uuid);
 uuid_make(uuid, UUID_MAKE_V1);
 str = NULL;
 uuid_export(uuid, UUID_FMT_STR, &str, NULL);
 uuid_destroy(uuid);
 return str;
}
```

```
/* generate a DCE 1.1 v3 UUID from an URL */
char *uuid_v3(const char *url)
{
 uuid_t *uuid;
 uuid_t *uuid_ns;
 char *str;

 uuid_create(&uuid);
 uuid_create(&uuid_ns);
 uuid_load(uuid_ns, "ns:URL");
 uuid_make(uuid, UUID_MAKE_V3, uuid_ns, url);
 str = NULL;
 uuid_export(uuid, UUID_FMT_STR, &str, NULL);
 uuid_destroy(uuid_ns);
 uuid_destroy(uuid);
 return str;
}
```

=head1 SEE ALSO

The following are references to B<UUID> documentation and specifications:

=over 4

=item

B<A Universally Unique Identifier (UUID) URN Namespace>,  
P. Leach, M. Mealling, R. Salz,  
IETF RFC-4122,  
July 2005, 32 pages,  
<http://www.ietf.org/rfc/rfc4122.txt>

=item

Information Technology -- Open Systems Interconnection (OSI),  
B<Procedures for the operation of OSI Registration Authorities:  
Generation and Registration of Universally Unique Identifiers (UUIDs)  
and their Use as ASN.1 Object Identifier Components>,  
ISO/IEC 9834-8:2004 / ITU-T Rec. X.667, 2004,  
December 2004, 25 pages,  
<http://www.itu.int/ITU-T/studygroups/com17/oid/X.667-E.pdf>

=item

B<DCE 1.1: Remote Procedure Call>,  
appendix B<Universally Unique Identifier>,  
Open Group Technical Standard  
Document Number C706, August 1997, 737 pages,  
(supersedes C309 DCE: Remote Procedure Call 8/1994,  
which was basis for ISO/IEC 11578:1996 specification),  
<http://www.opengroup.org/publications/catalog/c706.htm>

=item

Information technology -- Open Systems Interconnection (OSI),  
B<Remote Procedure Call (RPC)>,  
ISO/IEC 11578:1996,  
August 2001, 570 pages, (CHF 340,00),  
<http://www.iso.ch/cate/d2229.html>

=item

B<HTTP Extensions for Distributed Authoring (WebDAV)>,  
section B<6.4.1 Node Field Generation Without the IEEE 802 Address>,  
IETF RFC-2518,  
February 1999, 94 pages,  
<http://www.ietf.org/rfc/rfc2518.txt>

=item

B<DCE 1.1 compliant UUID functions>,  
FreeBSD manual pages uuid(3) and uuidgen(2),  
<http://www.freebsd.org/cgi/man.cgi?query=uuid&manpath=FreeBSD+6.0-RELEASE>

=back

=head1 HISTORY

B<OSSP uuid> was implemented in January 2004 by Ralf S. Engelschall E<lt>rse@engelschall.comE<gt>. It was prompted by the use of UUIDs in the B<OSSP as> and B<OpenPKG> projects. It is a clean room implementation intended to be strictly standards compliant and maximum portable.

=head1 SEE ALSO

uuid(1), uuid-config(1), OSSP::uuid(3).

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/.pc/0003-Fix-what-is-entries.patch/uuid.pod

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\*\*

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\*\*

\*\* ui64.h: API declaration

\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid\_ui64.h

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\*\*

\*\* uuid.c: PHP/Zend API (language: C)

\*/

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/php/uuid.c

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```

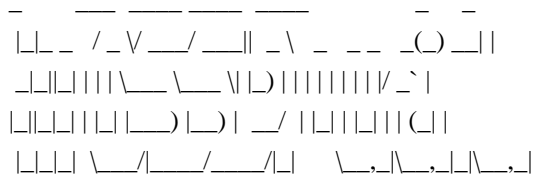
```
**
** uuid_mac.c: Media Access Control (MAC) resolver implementation
```

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid_mac.c
```

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OSSP uuid - Universally Unique Identifier  
Version 1.6.2 (04-Jul-2008)

**ABSTRACT**

OSSP uuid is a ISO-C:1999 application programming interface (API) and corresponding command line interface (CLI) for the generation of DCE 1.1, ISO/IEC 11578:1996 and IETF RFC-4122 compliant Universally Unique Identifier (UUID). It supports DCE 1.1 variant UUIDs of version 1 (time and node based), version 3 (name based, MD5), version 4 (random number based) and version 5 (name based, SHA-1). Additional API bindings are provided for the languages ISO-C++:1998, Perl:5 and PHP:4/5. Optional backward compatibility exists for the ISO-C DCE-1.1 and Perl Data::UUID APIs.

UUIDs are 128 bit numbers which are intended to have a high likelihood of uniqueness over space and time and are computationally difficult

to guess. They are globally unique identifiers which can be locally generated without contacting a global registration authority. UUIDs are intended as unique identifiers for both mass tagging objects with an extremely short lifetime and to reliably identifying very persistent objects across a network.

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## HOME AND DOCUMENTATION

The documentation and latest release can be found on

o <http://www.ossproject.org/pkg/lib/uuid/>

o <ftp://ftp.ossproject.org/pkg/lib/uuid/>

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/README

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##

## OSSP uuid - Universally Unique Identifier

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##



```
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##
uuid++.pod: manual page for C++ API
##
```

=pod

=head1 NAME

B<uuid++> - B<Universally Unique Identifier> (C++ API)

=head1 VERSION

OSSP uuid UUID\_VERSION\_STR

=head1 DESCRIPTION

B<uuid++> is the ISO-C++ language binding of the B<OSSP uuid> C API. It provides a thin ISO-C++ class B<uuid> wrapping the ISO-C API type B<uuid\_t>.

=head1 APPLICATION PROGRAMMING INTERFACE

The ISO-C++ Application Programming Interface (API) of B<OSSP uuid> consists of the following components:

=head2 CONSTANTS

The constants are the same to those provided by the ISO-C API.

See `uuid(3)` for details.

## =head2 CLASSES

The following classes are provided:

=over 4

=item B<uuid>

This is the class corresponding to the C API type `B<uuid_t>`.

It is the main object.

=item B<uuid\_error\_t>

This is the class corresponding to the C API function `B<uuid_error>`.

It is the object thrown as an exception in case of any errors.

=back

## =head2 METHODS

The following methods are provided:

=over 4

=item B<uuid>();

The standard constructor.

=item B<uuid>(const uuid &\_obj);

The copy constructor for `B<uuid>` class.

=item B<uuid>(const uuid\_t \*\_obj);

The import constructor for C API objects.

=item B<uuid>(const void \*\_bin);

The import constructor for binary representation.

=item B<uuid>(const char \*\_str);

The import constructor for string representation.

=item ~B<uuid>();

The standard destructor for B<uuid> class.

```
=item uuid &B<uuid::operator=>(const uuid &_obj);
```

The assignment operator corresponding to the copy constructor.

```
=item uuid &B<uuid::operator=>(const uuid_t *_obj);
```

The assignment operator corresponding to the import constructor for C API objects.

```
=item uuid &B<uuid::operator=>(const void *_bin);
```

The assignment operator corresponding to the import constructor for binary representation.

```
=item uuid &B<uuid::operator=>(const char *_str);
```

The assignment operator corresponding to the import constructor for string and single integer value representation.

```
=item uuid B<uuid::clone>(void);
```

Regular method corresponding to the C API function B<uuid\_clone>.

```
=item void B<uuid::load>(const char *_name);
```

Regular method corresponding to the C API function B<uuid\_load>.

```
=item void B<uuid::make>(unsigned int _mode, ...);
```

Regular method corresponding to the C API function B<uuid\_make>.

```
=item int B<uuid::isnil>(void);
```

Regular method corresponding to the C API function B<uuid\_isnil>.

```
=item int B<uuid::compare>(const uuid &_obj);
```

Regular method corresponding to the C API function B<uuid\_compare>.

```
=item int B<uuid::operator==>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for equality.

```
=item int B<uuid::operator!==(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for inequality.

```
=item int B<uuid::operatorE<lt>>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for less-than.

```
=item int B<uuid::operatorE<lt>=>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for less-than-or-equal.

```
=item int B<uuid::operatorE<gt>>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for greater-than.

```
=item int B<uuid::operatorE<gt;=>(const uuid &_obj);
```

The comparison operator corresponding to B<uuid\_compare> usage for greater-than-or-equal.

```
=item void B<uuid::import>(const void *_bin);
```

Regular method corresponding to the C API function B<uuid\_import> for binary representation usage.

```
=item void B<uuid::import>(const char *_str);
```

Regular method corresponding to the C API function B<uuid\_import> for string representation usage.

```
=item void *B<uuid::binary>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for binary representation usage.

```
=item char *B<uuid::string>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for string representation usage.

```
=item char *B<uuid::integer>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for single integer value representation usage.

```
=item char *B<uuid::summary>(void);
```

Regular method corresponding to the C API function B<uuid\_export> for textual summary representation usage.

```
=item unsigned long B<uuid::version>(void);
```

Regular method corresponding to the C API function B<uuid\_version>.

```
=item B<uuid_error_t>()
```

The standard constructor for B<uuid\_error\_t> class.

```
=item B<uuid_error_t>(uuid_rc_t_code)
```

The standard constructor for B<uuid\_error\_t> class with return code initialization.

```
=item ~B<uuid_error_t>()
```

The standard destructor for B<uuid\_error\_t> class.

```
=item void B<uuid_error_t::code>(uuid_rc_t _code)
```

Regular method for setting the return code.

```
=item uuid_rc_t B<uuid_error_t::code>(void)
```

Regular method for fetching the return code.

```
=item char *B<uuid_error_t::string>(void)
```

Regular method for fetching the string corresponding to the current return code.

```
=back
```

```
=head1 EXAMPLE
```

The following shows an example usage of the C++ API. Exception handling is omitted for code simplification and has to be re-added for production code.

```
/* generate a DCE 1.1 v1 UUID from system environment */
```

```
char *uuid_v1(void)
```

```
{
```

```
 uuid id;
```

```
 char *str;
```

```
 id.make(UUID_MAKE_V1);
```

```
 str = id.string();
```

```
 return str;
```

```
}
```

```
/* generate a DCE 1.1 v3 UUID from an URL */
```

```
char *uuid_v3(const char *url)
```

```
{
```

```
 uuid id;
```

```
 uuid id_ns;
```

```
 char *str;
```

```
 id_ns.load("ns:URL");
```

```
 id.make(UUID_MAKE_V3, &id_ns, url);
```

```
 str = id.string();
```

```
 return str;
```

}

=head1 SEE ALSO

uuid(3).

=cut

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid++.pod

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\*\*

\*\* uuid++.hh: library C++ API definition

\*/

Found in path(s):

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```
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##
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SUCH DAMAGE.
##
uuid.pc.in: pkg-config(1) specification
##
```

```
prefix=@prefix@
exec_prefix=${prefix}
includedir=${prefix}/include
libdir=${exec_prefix}/lib
```

```
Name: OSSP uuid
Description: Universally Unique Identifier (UUID) Library
Version: @UUID_VERSION_RAW@
URL: http://www.oss.org/pkg/lib/uuid/
Cflags: -I${includedir}/oss
Libs: -L${libdir} -lossp-uuid
Libs.private: @LIBS@
```

Found in path(s):

```
* /opt/cola/permits/1668125669_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/uuid.pc.in
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dnl ##

dnl ## SA - OSSP Socket Abstraction Library

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dnl ## Copyright (c) 2001-2003 Cable & Wireless Deutschland <http://www.cw.com/de/>

```

dnl ##
dnl ## This file is part of OSSP SA, a socket abstraction library which
dnl ## can be found at http://www.oss.org/pkg/sa/.
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dnl ## SUCH DAMAGE.
dnl ##
dnl ## aclocal.m4: GNU Autoconf local macro definitions
dnl ##

dnl ##
dnl ## Check whether compiler option works
dnl ##
dnl ## configure.in:
dnl ## AC_COMPILER_OPTION(<name>, <display>, <option>,
dnl ## <action-success>, <action-failure>)
dnl ##

AC_DEFUN(AC_COMPILER_OPTION,[dnl
AC_MSG_CHECKING(whether compiler option(s) $2 work)
AC_CACHE_VAL(ac_cv_compiler_option_$1,[
SAVE_CFLAGS="$CFLAGS"
CFLAGS="$CFLAGS $3"
AC_TRY_COMPILE([],[], ac_cv_compiler_option_$1=yes, ac_cv_compiler_option_$1=no)
CFLAGS="$SAVE_CFLAGS"
])dnl
if test ".$ac_cv_compiler_option_$1" = .yes; then
 ifelse([$4], , :, [$4])
else
 ifelse([$5], , :, [$5])
fi
AC_MSG_RESULT([$ac_cv_compiler_option_$1])
])dnl

```



```

dnl ##
dnl ## Debugging Support
dnl ##
dnl ## configure.in:
dnl ## AC_CHECK_DEBUGGING
dnl ##

AC_DEFUN([AC_CHECK_DEBUGGING],[dnl
AC_ARG_ENABLE(debug,dnl
[--enable-debug build for debugging (default=no)],
[dnl
if test ".$ac_cv_prog_gcc" = ".yes"; then
 case "$CFLAGS" in
 -O) ;;
 *) CFLAGS="$CFLAGS -O2" ;;
 esac
 case "$CFLAGS" in
 -g) ;;
 *) CFLAGS="$CFLAGS -g" ;;
 esac
 case "$CFLAGS" in
 -pipe) ;;
 *) AC_COMPILER_OPTION(pipe, -pipe, -pipe, CFLAGS="$CFLAGS -pipe") ;;
 esac
 AC_COMPILER_OPTION(defdbg, -DDEBUG, -DDEBUG, CFLAGS="$CFLAGS -DDEBUG")
 CFLAGS="$CFLAGS -pedantic"
 CFLAGS="$CFLAGS -Wall"
 WMORE="-Wshadow -Wpointer-arith -Wcast-align -Winline"
 WMORE="$WMORE -Wmissing-prototypes -Wmissing-declarations -Wnested-externs"
 AC_COMPILER_OPTION(wmore, -W<xxx>, $WMORE, CFLAGS="$CFLAGS $WMORE")
 AC_COMPILER_OPTION(wnolonglong, -Wno-long-long, -Wno-long-long, CFLAGS="$CFLAGS -Wno-long-
long")
else
 case "$CFLAGS" in
 -g) ;;
 *) CFLAGS="$CFLAGS -g" ;;
 esac
fi
msg="enabled"
],[
if test ".$ac_cv_prog_gcc" = ".yes"; then
 case "$CFLAGS" in
 -pipe) ;;
 *) AC_COMPILER_OPTION(pipe, -pipe, -pipe, CFLAGS="$CFLAGS -pipe") ;;
 esac
fi
case "$CFLAGS" in

```

```

-g) CFLAGS=`echo "$CFLAGS" |
 sed -e 's/ -g / /g' -e 's/ -g$//' -e 's/^-g //g' -e 's/^-g$//'^` ;;
esac
case "$CXXFLAGS" in
-g) CXXFLAGS=`echo "$CXXFLAGS" |
 sed -e 's/ -g / /g' -e 's/ -g$//' -e 's/^-g //g' -e 's/^-g$//'^` ;;
esac
msg=disabled
)dnl
AC_MSG_CHECKING(for compilation debug mode)
AC_MSG_RESULT([$msg])
if test ".$msg" = .enabled; then
 enable_shared=no
fi
)dnl

dnl ##
dnl ## Check for C99 va_copy() implementation
dnl ## (and provide fallback implementation if necessary)
dnl ##
dnl ## configure.in:
dnl ## AC_CHECK_VA_COPY
dnl ## foo.c:
dnl ## #include "config.h"
dnl ## [...]
dnl ## va_copy(d,s)
dnl ##
dnl ## This check is rather complex: first because we really have to
dnl ## try various possible implementations in sequence and second, we
dnl ## cannot define a macro in config.h with parameters directly.
dnl ##

dnl # test program for va_copy() implementation
changequote(<<,>>)
m4_define(__va_copy_test, <<[
#include <stdlib.h>
#include <stdarg.h>
#include <string.h>
#define DO_VA_COPY(d, s) $1
void test(char *str, ...)
{
 va_list ap, ap2;
 int i;
 va_start(ap, str);
 DO_VA_COPY(ap2, ap);
 for (i = 1; i <= 9; i++) {
 int k = (int)va_arg(ap, int);
 if (k != i)

```

```

 abort();
 }
 DO_VA_COPY(ap, ap2);
 for (i = 1; i <= 9; i++) {
 int k = (int)va_arg(ap, int);
 if (k != i)
 abort();
 }
 va_end(ap);
}
int main(int argc, char *argv[])
{
 test("test", 1, 2, 3, 4, 5, 6, 7, 8, 9);
 exit(0);
}
]>>)
changequote([,])

```

```

dnl # test driver for va_copy() implementation
m4_define(__va_copy_check, [
 AH_VERBATIM($1,
 /* Predefined possible va_copy() implementation (id: $1) */
 #define __VA_COPY_USE_$1(d, s) $2])
 if test ".$ac_cv_va_copy" = .; then
 AC_TRY_RUN(__va_copy_test($2), [ac_cv_va_copy="$1"])
 fi
])

```

```

dnl # Autoconf check for va_copy() implementation checking
AC_DEFUN(AC_CHECK_VA_COPY,[
dnl # provide Autoconf display check message
AC_MSG_CHECKING(for va_copy() function)
dnl # check for various implementations in prioritized sequence
AC_CACHE_VAL(ac_cv_va_copy, [
 ac_cv_va_copy=""
dnl # 1. check for standardized C99 macro
__va_copy_check(C99, [va_copy((d), (s))])
dnl # 2. check for alternative/deprecated GCC macro
__va_copy_check(GCM, [VA_COPY((d), (s))])
dnl # 3. check for internal GCC macro (high-level define)
__va_copy_check(GCH, [__va_copy((d), (s))])
dnl # 4. check for internal GCC macro (built-in function)
__va_copy_check(GCB, [__builtin_va_copy((d), (s))])
dnl # 5. check for assignment approach (assuming va_list is a struct)
__va_copy_check(ASS, [do { (d) = (s); } while (0)])
dnl # 6. check for assignment approach (assuming va_list is a pointer)
__va_copy_check(ASP, [do { *(d) = *(s); } while (0)])
dnl # 7. check for memory copying approach (assuming va_list is a struct)

```

```

__va_copy_check(CPS, [memcpy((void *)&(d), (void *)&(s), sizeof((s)))]
dnl # 8. check for memory copying approach (assuming va_list is a pointer)
__va_copy_check(CPP, [memcpy((void *)&(d), (void *)&(s), sizeof(*s)))]
if test ".$ac_cv_va_copy" = .; then
 AC_ERROR([no working implementation found])
fi
)
dnl # optionally activate the fallback implementation
if test ".$ac_cv_va_copy" = ".C99"; then
 AC_DEFINE(HAVE_VA_COPY, 1, [Define if va_copy() macro exists (and no fallback implementation is
required)])
fi
dnl # declare which fallback implementation to actually use
AC_DEFINE_UNQUOTED([__VA_COPY_USE], [__VA_COPY_USE_$ac_cv_va_copy],
 [Define to id of used va_copy() implementation])
dnl # provide activation hook for fallback implementation
AH_VERBATIM([__VA_COPY_ACTIVATION],
[/* Optional va_copy() implementation activation */
#ifdef HAVE_VA_COPY
#define va_copy(d, s) __VA_COPY_USE(d, s)
#endif
])
dnl # provide Autoconf display result message
if test ".$ac_cv_va_copy" = ".C99"; then
 AC_MSG_RESULT([yes])
else
 AC_MSG_RESULT([no (using fallback implementation)])
fi
)

dnl ##
dnl ## Check for an external/extension library.
dnl ## - is aware of <libname>-config style scripts
dnl ## - searches under standard paths include, lib, etc.
dnl ## - searches under subareas like .libs, etc.
dnl ##
dnl ## configure.in:
dnl ## AC_CHECK_EXTLIB(<realname>, <libname>, <func>, <header>,
dnl ## [<success-action> [, <fail-action>]])
dnl ## Makefile.in:
dnl ## CFLAGS = @CFLAGS@
dnl ## LDFLAGS = @LDFLAGS@
dnl ## LIBS = @LIBS@
dnl ## shell:
dnl ## $./configure --with-<libname>[=DIR]
dnl ##

AC_DEFUN(AC_CHECK_EXTLIB,[dnl

```

```

AC_ARG_WITH($2, [dnl
[--with-]m4_substr([$2[=[DIR]]
], 0, 19)[build with external $1 library (default=no)], [dnl
if test ".$with_$2" = .yes; then
 # via config script in PATH
 $2_version=`($2-config --version) 2>/dev/null`
 if test ".$$2_version" != .; then
 CPPFLAGS="$CPPFLAGS ` $2-config --cflags`"
 CFLAGS="$CFLAGS ` $2-config --cflags`"
 LDFLAGS="$LDFLAGS ` $2-config --ldflags`"
 fi
else
 if test -d "$with_$2"; then
 found=0
 # via config script
 for dir in $with_$2/bin $with_$2; do
 if test -f "$dir/$2-config" && test ! -f "$dir/$2-config.in"; then
 $2_version=`($dir/$2-config --version) 2>/dev/null`
 if test ".$$2_version" != .; then
 CPPFLAGS="$CPPFLAGS ` $dir/$2-config --cflags`"
 CFLAGS="$CFLAGS ` $dir/$2-config --cflags`"
 LDFLAGS="$LDFLAGS ` $dir/$2-config --ldflags`"
 found=1
 break
 fi
 fi
 done
 # in standard sub-areas
 if test ".$found" = .0; then
 for dir in $with_$2/include/$2 $with_$2/include $with_$2; do
 if test -f "$dir/$4"; then
 CPPFLAGS="$CPPFLAGS -I$dir"
 CFLAGS="$CFLAGS -I$dir"
 found=1
 break
 fi
 done
 for dir in $with_$2/lib/$2 $with_$2/lib $with_$2; do
 if test -f "dir/lib2.la" && test -d "$dir/.libs"; then
 LDFLAGS="$LDFLAGS -L$dir -L$dir/.libs"
 found=1
 break
 elif test -f "dir/lib2.a" || test -f "dir/lib2.so"; then
 LDFLAGS="$LDFLAGS -L$dir"
 found=1
 break
 fi
 done
 fi
 fi
done
fi

```

```

in any sub-area
if test ".$found" = .0; then
changequote(,)dnl
 for file in x `find $with_$2 -name "$4" -type f -print`; do
 test .file = .x && continue
 dir=`echo $file | sed -e 's;[^\/*$;]' -e 's;(./)/$;1;`
 CPPFLAGS="$CPPFLAGS -I$dir"
 CFLAGS="$CFLAGS -I$dir"
 done
 for file in x `find $with_$2 -name "lib$2.[aso]" -type f -print`; do
 test .file = .x && continue
 dir=`echo $file | sed -e 's;[^\/*$;]' -e 's;(./)/$;1;`
 LDFLAGS="$LDFLAGS -L$dir"
 done
changequote([,])dnl
 fi
 fi
 fi
 AC_HAVE_HEADERS($4)
 AC_CHECK_LIB($2, $3)
 with_$2=yes
 ac_var="ac_cv_header_`echo $4 | sed 'y%./+-%__p%`"
 eval "ac_val=\${$ac_var}"
 if test ".$ac_val" != .yes; then
 with_$2=no
 fi
 if test ".$ac_cv_lib_$2_$3" != .yes; then
 with_$2=no
 fi
 if test ".$with_$2" = .no; then
 AC_ERROR([Unable to find $1 library])
 fi
], [dnl
if test ".$with_$2" = .; then
 with_$2=no
fi
])dnl
AC_MSG_CHECKING(whether to build against external $1 library)
if test ".$with_$2" = .yes; then
 ifelse([$5], , :, [$5])
else
 ifelse([$6], , :, [$6])
fi
AC_MSG_RESULT([$with_$2])
])dnl

dnl ##
dnl ## Check whether to activate Dmalloc

```

```

dnl ##
dnl ## configure.in:
dnl ## AC_CHECK_DMALLOC
dnl ##

AC_DEFUN([AC_CHECK_DMALLOC],[dnl
AC_CHECK_EXTLIB(Dmalloc, dmalloc, dmalloc_debug, dmalloc.h,
AC_DEFINE(WITH_DMALLOC, 1, [define if building with Dmalloc]))
if test ".$with_dmalloc" = .yes; then
CFLAGS=`echo "X$CFLAGS" | sed -e 's;^X;;' -e 's; -Wredundant-decls;;`"
fi
])dnl

```

Found in path(s):

\* /opt/cola/permits/1668125669\_1683576347.1207342/0/uuid-1-6-2-tar-gz/uuid-1.6.2/acinclude.m4

# 1.519 Ivm2 2.03.16

## 1.519.1 Available under license :

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Version 2.1, February 1999

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## 1.526 aws-c-cal 0.5.2

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## 1.527 ns-exec-tools 0.0.2 2

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## 1.528 dosfs-tools 4.1-2

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## 1.537 dialog 1:1.3\_20190808-1

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Upstream source <http://invisible-island.net/dialog/dialog.html>

Current dialog upstream maintainer: Thomas Dickey <[dickey@invisible-island.net](mailto:dickey@invisible-island.net)>

-----  
Files: \*.c \*.h

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This script is compatible with the BSD install script, but was written from scratch. It can only install one file at a time, a restriction shared with many OS's install programs.

Files: debian/\*

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```
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```
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Julian Seward, jseward@bzip.org  
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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That's all there is to it!  
DRuntime: Runtime Library for the D Programming Language

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GCC RUNTIME LIBRARY EXCEPTION

Version 3.1, 31 March 2009

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## 1.544 free-type 2.10.1-1

### 1.544.1 Available under license :

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```
/******
```

```
*
```

```
* ftgzip.h
```

```
*
```

```
* Gzip-compressed stream support.
```

```
*
```

```
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```

```
* David Turner, Robert Wilhelm, and Werner Lemberg.
```

```
*
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\*\*\*\*\*

\*

\* ftsystem.h

\*

\* FreeType low-level system interface definition (specification).

\*

\* Copyright (C) 1996-2019 by

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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftsystem.h

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\*

\* ftdriver.h

\*

\* FreeType API for controlling driver modules (specification only).

\*

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\*

\*/

/\*  
\*\*\*\*\*

\*

\* @property:  
 \* no-stem-darkening  
 \*

\* @description:  
 \* All glyphs that pass through the auto-hinter will be emboldened unless  
 \* this property is set to TRUE. The same is true for the CFF, Type~1,  
 \* and CID font modules if the 'Adobe' engine is selected (which is the  
 \* default).  
 \*

\* Stem darkening emboldens glyphs at smaller sizes to make them more  
 \* readable on common low-DPI screens when using linear alpha blending  
 \* and gamma correction, see @FT\_Render\_Glyph. When not using linear  
 \* alpha blending and gamma correction, glyphs will appear heavy and  
 \* fuzzy!  
 \*

\* Gamma correction essentially lightens fonts since shades of grey are  
 \* shifted to higher pixel values (=~higher brightness) to match the  
 \* original intention to the reality of our screens. The side-effect is  
 \* that glyphs 'thin out'. Mac OS~X and Adobe's proprietary font  
 \* rendering library implement a counter-measure: stem darkening at  
 \* smaller sizes where shades of gray dominate. By emboldening a glyph  
 \* slightly in relation to its pixel size, individual pixels get higher  
 \* coverage of filled-in outlines and are therefore 'blacker'. This  
 \* counteracts the 'thinning out' of glyphs, making text remain readable  
 \* at smaller sizes.  
 \*

\* By default, the Adobe engines for CFF, Type~1, and CID fonts darken  
 \* stems at smaller sizes, regardless of hinting, to enhance contrast.  
 \* Setting this property, stem darkening gets switched off.  
 \*

\* For the auto-hinter, stem-darkening is experimental currently and thus  
 \* switched off by default (this is, `no-stem-darkening` is set to TRUE  
 \* by default). Total consistency with the CFF driver is not achieved  
 \* right now because the emboldening method differs and glyphs must be  
 \* scaled down on the Y-axis to keep outline points inside their  
 \* precomputed blue zones. The smaller the size (especially 9ppem and  
 \* down), the higher the loss of emboldening versus the CFF driver.  
 \*

\* Note that stem darkening is never applied if @FT\_LOAD\_NO\_SCALE is set.  
 \*

\* @note:  
 \* This property can be used with @FT\_Property\_Get also.  
 \*

\* This property can be set via the `FREETYPE\_PROPERTIES` environment  
 \* variable (using values 1 and 0 for 'on' and 'off', respectively). It  
 \* can also be set per face using @FT\_Face\_Properties with  
 \* @FT\_PARAM\_TAG\_STEM\_DARKENING.  
 \*

```

* @example:
* ```
* FT_Library library;
* FT_Bool no_stem_darkening = TRUE;
*
*
* FT_Init_FreeType(&library);
*
* FT_Property_Set(library, "cff",
* "no-stem-darkening", &no_stem_darkening);
* ```
*
* @since:
* 2.4.12 (for 'cff' module)
*
* 2.6.2 (for 'autofitter' module)
*
* 2.9 (for 'type1' and 't1cid' modules)
*
*/

```

Found in path(s):

```

* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftdriver.h

```

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```

/*****

```

```

*
* ftypes.h
*
* FreeType simple types definitions (specification only).
*
* Copyright (C) 1996-2019 by
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*/

```

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```

* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/fttypes.h

```

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```
/*
*
* ft2build.h
*
* FreeType 2 build and setup macros.
*
* Copyright (C) 1996-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/ft2build.h
```

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```
/*
*
* ftbzip2.h
*
* Bzip2-compressed stream support.
*
* Copyright (C) 2010-2019 by
* Joel Klinghed.
*
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*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftbzip2.h
```

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```
/*
*
* ftsynth.h
*
*/
```

\* FreeType synthesizing code for emboldening and slanting  
\* (specification).  
\*  
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xz/usr/include/freetype2/freetype/ftsynth.h

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/\*\*\*\*\*\*  
\*  
\* tttags.h  
\*  
\* Tags for TrueType and OpenType tables (specification only).  
\*  
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xz/usr/include/freetype2/freetype/tttags.h

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/\*\*\*\*\*\*  
\*  
\* ftcolor.h  
\*  
\* FreeType's glyph color management (specification).  
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\*  
\* ftwinfnt.h  
\*  
\* FreeType API for accessing Windows fnt-specific data.  
\*  
\* Copyright (C) 2003-2019 by  
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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftwinfnt.h

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\*  
\* ftoption.h  
\*  
\* User-selectable configuration macros (specification only).  
\*  
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xz/usr/include/freetype2/freetype/config/ftoption.h

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\*  
\* ftimage.h  
\*  
\* FreeType glyph image formats and default raster interface  
\* (specification).  
\*  
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xz/usr/include/freetype2/freetype/ftimage.h

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\*  
\* ftmm.h  
\*  
\* FreeType Multiple Master font interface (specification).  
\*  
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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftmm.h

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/\*  
\*\*\*\*\*  
\*/

\* ftstdlib.h

\*

\* ANSI-specific library and header configuration file (specification  
\* only).

\*

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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/config/ftstdlib.h

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/\*  
\*\*\*\*\*  
\*/

\* ftlzw.h

\*

\* LZW-compressed stream support.

\*

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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftlzw.h

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```
/*
*
* ftincrm.h
*
* FreeType incremental loading (specification).
*
* Copyright (C) 2002-2019 by
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*/
```

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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftincrm.h

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```
/*
*
* fthead.h
*
* Build macros of the FreeType 2 library.
*
* Copyright (C) 1996-2019 by
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\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/config/fthead.h

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/*
*
* ftfont.h
*
* Support functions for font formats.
*
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*/
```

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```
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xz/usr/include/freetype2/freetype/ftfont.h
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```
/*
*
* ftmodapi.h
*
* FreeType modules public interface (specification).
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xz/usr/include/freetype2/freetype/ftmodapi.h
```

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```
/*
*
```

```
* ftgxval.h
*
* FreeType API for validating TrueTypeGX/AAT tables (specification).
*
* Copyright (C) 2004-2019 by
* Masatake YAMATO, Redhat K.K,
* David Turner, Robert Wilhelm, and Werner Lemberg.
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```

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xz/usr/include/freetype2/freetype/ftgxval.h
```

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```
/******
```

```
*
* ftbitmap.h
*
* FreeType utility functions for bitmaps (specification).
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```

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xz/usr/include/freetype2/freetype/ftbitmap.h
```

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```
/******
```

```
*
* ftmac.h
*
* Additional Mac-specific API.
```

```
*
* Copyright (C) 1996-2019 by
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*
*/
```

Found in path(s):

```
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xz/usr/include/freetype2/freetype/ftmac.h
```

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```
/******
*
* ttnameid.h
*
* TrueType name ID definitions (specification only).
*
* Copyright (C) 1996-2019 by
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```

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xz/usr/include/freetype2/freetype/ttnameid.h
```

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```
/******
*
* ftadvanc.h
*
* Quick computation of advance widths (specification only).
*
* Copyright (C) 2008-2019 by
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*
*/
```

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xz/usr/include/freetype2/freetype/ftadvanc.h

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\*

\* fttrigon.h

\*

\* FreeType trigonometric functions (specification).

\*

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xz/usr/include/freetype2/freetype/fttrigon.h

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\*

\* ftmoderr.h

\*

\* FreeType module error offsets (specification).

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\* ftcache.h

\*

\* FreeType Cache subsystem (specification).

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\*/

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftcache.h

No license file was found, but licenses were detected in source scan.

/\*\*\*\*\*

\*

\* ftbbox.h

\*

\* FreeType exact bbox computation (specification).

\*

\* Copyright (C) 1996-2019 by

\* David Turner, Robert Wilhelm, and Werner Lemberg.

\*

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\*

\*/

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftbbox.h

No license file was found, but licenses were detected in source scan.

```

/*****
*
* t1tables.h
*
* Basic Type 1/Type 2 tables definitions and interface (specification
* only).
*
* Copyright (C) 1996-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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*
*/

```

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/t1tables.h

No license file was found, but licenses were detected in source scan.

```

/*****
*
* ftstroke.h
*
* FreeType path stroker (specification).
*
* Copyright (C) 2002-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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*
*/

```

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftstroke.h

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```

/*****
*
* freetype.h
*
* FreeType high-level API and common types (specification only).
*
* Copyright (C) 1996-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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* this file you indicate that you have read the license and
* understand and accept it fully.
*
*/
/*****
*
* @enum:
* FT_LOAD_XXX
*
* @description:
* A list of bit field constants for @FT_Load_Glyph to indicate what kind
* of operations to perform during glyph loading.
*
* @values:
* FT_LOAD_DEFAULT ::
* Corresponding to ~0, this value is used as the default glyph load
* operation. In this case, the following happens:
*
* 1. FreeType looks for a bitmap for the glyph corresponding to the
* face's current size. If one is found, the function returns. The
* bitmap data can be accessed from the glyph slot (see note below).
*
* 2. If no embedded bitmap is searched for or found, FreeType looks
* for a scalable outline. If one is found, it is loaded from the font
* file, scaled to device pixels, then 'hinted' to the pixel grid in
* order to optimize it. The outline data can be accessed from the
* glyph slot (see note below).
*
* Note that by default the glyph loader doesn't render outlines into
* bitmaps. The following flags are used to modify this default
* behaviour to more specific and useful cases.
*
* FT_LOAD_NO_SCALE ::
* Don't scale the loaded outline glyph but keep it in font units.

```



\*  
 \* This flag implies @FT\_LOAD\_NO\_HINTING and @FT\_LOAD\_NO\_BITMAP, and  
 \* unsets @FT\_LOAD\_RENDER.  
 \*  
 \* If the font is 'tricky' (see @FT\_FACE\_FLAG\_TRICKY for more), using  
 \* `FT\_LOAD\_NO\_SCALE` usually yields meaningless outlines because the  
 \* subglyphs must be scaled and positioned with hinting instructions.  
 \* This can be solved by loading the font without `FT\_LOAD\_NO\_SCALE`  
 \* and setting the character size to `font->units\_per\_EM`.  
 \*  
 \* FT\_LOAD\_NO\_HINTING ::  
 \* Disable hinting. This generally generates 'blurrier' bitmap glyphs  
 \* when the glyph are rendered in any of the anti-aliased modes. See  
 \* also the note below.  
 \*  
 \* This flag is implied by @FT\_LOAD\_NO\_SCALE.  
 \*  
 \* FT\_LOAD\_RENDER ::  
 \* Call @FT\_Render\_Glyph after the glyph is loaded. By default, the  
 \* glyph is rendered in @FT\_RENDER\_MODE\_NORMAL mode. This can be  
 \* overridden by @FT\_LOAD\_TARGET\_XXX or @FT\_LOAD\_MONOCHROME.  
 \*  
 \* This flag is unset by @FT\_LOAD\_NO\_SCALE.  
 \*  
 \* FT\_LOAD\_NO\_BITMAP ::  
 \* Ignore bitmap strikes when loading. Bitmap-only fonts ignore this  
 \* flag.  
 \*  
 \* @FT\_LOAD\_NO\_SCALE always sets this flag.  
 \*  
 \* FT\_LOAD\_VERTICAL\_LAYOUT ::  
 \* Load the glyph for vertical text layout. In particular, the  
 \* `advance` value in the @FT\_GlyphSlotRec structure is set to the  
 \* `vertAdvance` value of the `metrics` field.  
 \*  
 \* In case @FT\_HAS\_VERTICAL doesn't return true, you shouldn't use this  
 \* flag currently. Reason is that in this case vertical metrics get  
 \* synthesized, and those values are not always consistent across  
 \* various font formats.  
 \*  
 \* FT\_LOAD\_FORCE\_AUTOHINT ::  
 \* Prefer the auto-hinter over the font's native hinter. See also the  
 \* note below.  
 \*  
 \* FT\_LOAD\_PEDANTIC ::  
 \* Make the font driver perform pedantic verifications during glyph  
 \* loading and hinting. This is mostly used to detect broken glyphs in  
 \* fonts. By default, FreeType tries to handle broken fonts also.

\*  
 \* In particular, errors from the TrueType bytecode engine are not  
 \* passed to the application if this flag is not set; this might result  
 \* in partially hinted or distorted glyphs in case a glyph's bytecode  
 \* is buggy.  
 \*  
 \* **FT\_LOAD\_NO\_RECURSE ::**  
 \* Don't load composite glyphs recursively. Instead, the font driver  
 \* fills the ``num_subglyph`` and ``subglyphs`` values of the glyph slot;  
 \* it also sets ``glyph->format`` to `@FT_GLYPH_FORMAT_COMPOSITE`. The  
 \* description of subglyphs can then be accessed with  
 \* `@FT_Get_SubGlyph_Info`.  
 \*  
 \* Don't use this flag for retrieving metrics information since some  
 \* font drivers only return rudimentary data.  
 \*  
 \* This flag implies `@FT_LOAD_NO_SCALE` and `@FT_LOAD_IGNORE_TRANSFORM`.  
 \*  
 \* **FT\_LOAD\_IGNORE\_TRANSFORM ::**  
 \* Ignore the transform matrix set by `@FT_Set_Transform`.  
 \*  
 \* **FT\_LOAD\_MONOCHROME ::**  
 \* This flag is used with `@FT_LOAD_RENDER` to indicate that you want to  
 \* render an outline glyph to a 1-bit monochrome bitmap glyph, with  
 \* 8~pixels packed into each byte of the bitmap data.  
 \*  
 \* Note that this has no effect on the hinting algorithm used. You  
 \* should rather use `@FT_LOAD_TARGET_MONO` so that the  
 \* monochrome-optimized hinting algorithm is used.  
 \*  
 \* **FT\_LOAD\_LINEAR\_DESIGN ::**  
 \* Keep ``linearHoriAdvance`` and ``linearVertAdvance`` fields of  
 \* `@FT_GlyphSlotRec` in font units. See `@FT_GlyphSlotRec` for details.  
 \*  
 \* **FT\_LOAD\_NO\_AUTOHINT ::**  
 \* Disable the auto-hinter. See also the note below.  
 \*  
 \* **FT\_LOAD\_COLOR ::**  
 \* Load colored glyphs. There are slight differences depending on the  
 \* font format.  
 \*  
 \* [Since 2.5] Load embedded color bitmap images. The resulting color  
 \* bitmaps, if available, will have the `@FT_PIXEL_MODE_BGRA` format,  
 \* with pre-multiplied color channels. If the flag is not set and  
 \* color bitmaps are found, they are converted to 256-level gray  
 \* bitmaps, using the `@FT_PIXEL_MODE_GRAY` format.  
 \*  
 \* [Since 2.10, experimental] If the glyph index contains an entry in

\* the face's 'COLR' table with a 'CPAL' palette table (as defined in  
 \* the OpenType specification), make @FT\_Render\_Glyph provide a default  
 \* blending of the color glyph layers associated with the glyph index,  
 \* using the same bitmap format as embedded color bitmap images. This  
 \* is mainly for convenience; for full control of color layers use  
 \* @FT\_Get\_Color\_Glyph\_Layer and FreeType's color functions like  
 \* @FT\_Palette\_Select instead of setting @FT\_LOAD\_COLOR for rendering  
 \* so that the client application can handle blending by itself.  
 \*

\* FT\_LOAD\_COMPUTE\_METRICS ::  
 \* [Since 2.6.1] Compute glyph metrics from the glyph data, without the  
 \* use of bundled metrics tables (for example, the 'hdmx' table in  
 \* TrueType fonts). This flag is mainly used by font validating or  
 \* font editing applications, which need to ignore, verify, or edit  
 \* those tables.  
 \*

\* Currently, this flag is only implemented for TrueType fonts.  
 \*

\* FT\_LOAD\_BITMAP\_METRICS\_ONLY ::  
 \* [Since 2.7.1] Request loading of the metrics and bitmap image  
 \* information of a (possibly embedded) bitmap glyph without allocating  
 \* or copying the bitmap image data itself. No effect if the target  
 \* glyph is not a bitmap image.  
 \*

\* This flag unsets @FT\_LOAD\_RENDER.  
 \*

\* FT\_LOAD\_CROP\_BITMAP ::  
 \* Ignored. Deprecated.  
 \*

\* FT\_LOAD\_IGNORE\_GLOBAL\_ADVANCE\_WIDTH ::  
 \* Ignored. Deprecated.  
 \*

\* @note:  
 \* By default, hinting is enabled and the font's native hinter (see  
 \* @FT\_FACE\_FLAG\_HINTER) is preferred over the auto-hinter. You can  
 \* disable hinting by setting @FT\_LOAD\_NO\_HINTING or change the  
 \* precedence by setting @FT\_LOAD\_FORCE\_AUTOHINT. You can also set  
 \* @FT\_LOAD\_NO\_AUTOHINT in case you don't want the auto-hinter to be used  
 \* at all.  
 \*

\* See the description of @FT\_FACE\_FLAG\_TRICKY for a special exception  
 \* (affecting only a handful of Asian fonts).  
 \*

\* Besides deciding which hinter to use, you can also decide which  
 \* hinting algorithm to use. See @FT\_LOAD\_TARGET\_XXX for details.  
 \*

\* Note that the auto-hinter needs a valid Unicode cmap (either a native  
 \* one or synthesized by FreeType) for producing correct results. If a

```

* font provides an incorrect mapping (for example, assigning the
* character code U+005A, LATIN CAPITAL LETTER~Z, to a glyph depicting a
* mathematical integral sign), the auto-hinter might produce useless
* results.
*
*/
/*****
*
* @enum:
* FT_FSTYPE_XXX
*
* @description:
* A list of bit flags used in the `fsType` field of the OS/2 table in a
* TrueType or OpenType font and the `FSType` entry in a PostScript font.
* These bit flags are returned by @FT_Get_FSType_Flags; they inform
* client applications of embedding and subsetting restrictions
* associated with a font.
*
* See
* https://www.adobe.com/content/dam/Adobe/en/devnet/acrobat/pdfs/FontPolicies.pdf
* for more details.
*
* @values:
* FT_FSTYPE_INSTALLABLE_EMBEDDING ::
* Fonts with no fsType bit set may be embedded and permanently
* installed on the remote system by an application.
*
* FT_FSTYPE_RESTRICTED_LICENSE_EMBEDDING ::
* Fonts that have only this bit set must not be modified, embedded or
* exchanged in any manner without first obtaining permission of the
* font software copyright owner.
*
* FT_FSTYPE_PREVIEW_AND_PRINT_EMBEDDING ::
* The font may be embedded and temporarily loaded on the remote
* system. Documents containing Preview & Print fonts must be opened
* 'read-only'; no edits can be applied to the document.
*
* FT_FSTYPE_EDITABLE_EMBEDDING ::
* The font may be embedded but must only be installed temporarily on
* other systems. In contrast to Preview & Print fonts, documents
* containing editable fonts may be opened for reading, editing is
* permitted, and changes may be saved.
*
* FT_FSTYPE_NO_SUBSETTING ::
* The font may not be subsetted prior to embedding.
*
* FT_FSTYPE_BITMAP_EMBEDDING_ONLY ::
* Only bitmaps contained in the font may be embedded; no outline data

```

\* may be embedded. If there are no bitmaps available in the font,  
\* then the font is unembeddable.  
\*  
\* @note:  
\* The flags are ORed together, thus more than a single value can be  
\* returned.  
\*  
\* While the `fsType` flags can indicate that a font may be embedded, a  
\* license with the font vendor may be separately required to use the  
\* font in this way.  
\*/

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-  
xz/usr/include/freetype2/freetype/freetype.h

No license file was found, but licenses were detected in source scan.

/\*\*\*\*\*

\*

\* fterrors.h

\*

\* FreeType error code handling (specification).

\*

\* Copyright (C) 1996-2019 by

\* David Turner, Robert Wilhelm, and Werner Lemberg.

\*

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\*

\*/

/\*\*\*\*\*

\*

\* @section:

\* error\_enumerations

\*

\* @title:

\* Error Enumerations

\*

\* @abstract:

\* How to handle errors and error strings.

\*

\* @description:

\* The header file `fterrors.h` (which is automatically included by

\* `freetype.h` defines the handling of FreeType's enumeration

\* constants. It can also be used to generate error message strings

```

* with a small macro trick explained below.
*
* **Error Formats**
*
* The configuration macro `FT_CONFIG_OPTION_USE_MODULE_ERRORS` can be
* defined in `ftoption.h` in order to make the higher byte indicate the
* module where the error has happened (this is not compatible with
* standard builds of FreeType~2, however). See the file `ftmoderr.h`
* for more details.
*
* **Error Message Strings**
*
* Error definitions are set up with special macros that allow client
* applications to build a table of error message strings. The strings
* are not included in a normal build of FreeType~2 to save space (most
* client applications do not use them).
*
* To do so, you have to define the following macros before including
* this file.
*
* ```
* FT_ERROR_START_LIST
* ```
*
* This macro is called before anything else to define the start of the
* error list. It is followed by several `FT_ERROR_DEF` calls.
*
* ```
* FT_ERROR_DEF(e, v, s)
* ```
*
* This macro is called to define one single error. 'e' is the error
* code identifier (e.g., `Invalid_Argument`), 'v' is the error's
* numerical value, and 's' is the corresponding error string.
*
* ```
* FT_ERROR_END_LIST
* ```
*
* This macro ends the list.
*
* Additionally, you have to undefine `FTERRORS_H_` before #including
* this file.
*
* Here is a simple example.
*
* ```
* #undef FTERRORS_H_

```

```

* #define FT_ERRORDEF(e, v, s) { e, s },
* #define FT_ERROR_START_LIST {
* #define FT_ERROR_END_LIST { 0, NULL } };
*
* const struct
* {
* int err_code;
* const char* err_msg;
* } ft_errors[] =
*
* #include FT_ERRORS_H
* ```
*
* An alternative to using an array is a switch statement.
*
* ```
* #undef FTERRORS_H_
* #define FT_ERROR_START_LIST switch (error_code) {
* #define FT_ERRORDEF(e, v, s) case v: return s;
* #define FT_ERROR_END_LIST }
* ```
*
* If you use `FT_CONFIG_OPTION_USE_MODULE_ERRORS`, `error_code` should
* be replaced with `FT_ERROR_BASE(error_code)` in the last example.
*/

```

Found in path(s):

```

* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/fterrors.h

```

No license file was found, but licenses were detected in source scan.

```

/*****
*
* ftlcdfil.h
*
* FreeType API for color filtering of subpixel bitmap glyphs
* (specification).
*
* Copyright (C) 2006-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
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*
*/

```

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftlcdfil.h

No license file was found, but licenses were detected in source scan.

/\*  
\*\*\*\*\*  
\*/

\*

\* ftpfr.h

\*

\* FreeType API for accessing PFR-specific data (specification only).

\*

\* Copyright (C) 2002-2019 by

\* David Turner, Robert Wilhelm, and Werner Lemberg.

\*

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\*/

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftpfr.h

No license file was found, but licenses were detected in source scan.

/\*  
\*\*\*\*\*  
\*/

\*

\* ftlist.h

\*

\* Generic list support for FreeType (specification).

\*

\* Copyright (C) 1996-2019 by

\* David Turner, Robert Wilhelm, and Werner Lemberg.

\*

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Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/include/freetype2/freetype/ftlist.h



No license file was found, but licenses were detected in source scan.

```
/*
*
* ftsnames.h
*
* Simple interface to access SFNT 'name' tables (which are used
* to hold font names, copyright info, notices, etc.) (specification).
*
* This is not used to retrieve glyph names!
*
* Copyright (C) 1996-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
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*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftsnames.h
```

No license file was found, but licenses were detected in source scan.

```
/*
*
* ftrender.h
*
* FreeType renderer modules public interface (specification).
*
* Copyright (C) 1996-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftrender.h
```

No license file was found, but licenses were detected in source scan.

```
/*
*
* ftparams.h
*
* FreeType API for possible FT_Parameter tags (specification only).
*
* Copyright (C) 2017-2019 by
* David Turner, Robert Wilhelm, and Werner Lemberg.
*
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* understand and accept it fully.
*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftparams.h
```

No license file was found, but licenses were detected in source scan.

```
/*
*
* ftcid.h
*
* FreeType API for accessing CID font information (specification).
*
* Copyright (C) 2007-2019 by
* Dereg Clegg and Michael Toftdal.
*
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* understand and accept it fully.
*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ftcid.h
```

No license file was found, but licenses were detected in source scan.

```
Configure paths for FreeType2
```

```
Marcelo Magallon 2001-10-26, based on gtk.m4 by Owen Taylor
```

```

#
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David Turner, Robert Wilhelm, and Werner Lemberg.
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LICENSE.TXT. By continuing to use, modify, or distribute this file you
indicate that you have read the license and understand and accept it
fully.
#
As a special exception to the FreeType project license, this file may be
distributed as part of a program that contains a configuration script
generated by Autoconf, under the same distribution terms as the rest of
that program.
#
serial 4

AC_CHECK_FT2([MINIMUM-VERSION [, ACTION-IF-FOUND [, ACTION-IF-NOT-FOUND]])
Test for FreeType 2, and define FT2_CFLAGS and FT2_LIBS.
MINIMUM-VERSION is what libtool reports; the default is `7.0.1' (this is
FreeType 2.0.4).
#
AC_DEFUN([AC_CHECK_FT2],
[# Get the cflags and libraries from the freetype-config script
#
AC_ARG_WITH([ft-prefix],
 dnl don't quote AS_HELP_STRING!
 AS_HELP_STRING([--with-ft-prefix=PREFIX],
 [Prefix where FreeType is installed (optional)]),
 [ft_config_prefix="$withval"],
 [ft_config_prefix=""])

AC_ARG_WITH([ft-exec-prefix],
 dnl don't quote AS_HELP_STRING!
 AS_HELP_STRING([--with-ft-exec-prefix=PREFIX],
 [Exec prefix where FreeType is installed (optional)]),
 [ft_config_exec_prefix="$withval"],
 [ft_config_exec_prefix=""])

AC_ARG_ENABLE([freetypetest],
 dnl don't quote AS_HELP_STRING!
 AS_HELP_STRING([--disable-freetypetest],
 [Do not try to compile and run a test FreeType program]),
 [],
 [enable_fttest=yes])

if test x$ft_config_exec_prefix != x ; then
 ft_config_args="$ft_config_args --exec-prefix=$ft_config_exec_prefix"

```

```

if test x${FT2_CONFIG+set} != xset ; then
 FT2_CONFIG=$ft_config_exec_prefix/bin/freetype-config
fi
fi

if test x$ft_config_prefix != x ; then
 ft_config_args="$ft_config_args --prefix=$ft_config_prefix"
 if test x${FT2_CONFIG+set} != xset ; then
 FT2_CONFIG=$ft_config_prefix/bin/freetype-config
 fi
fi

if test "x$FT2_CONFIG" = x ; then
 AC_PATH_TOOL([FT2_CONFIG], [freetype-config], [no])
fi

min_ft_version=m4_if([$1], [], [7.0.1], [$1])
AC_MSG_CHECKING([for FreeType -- version >= $min_ft_version])
no_ft=""
if test "$FT2_CONFIG" = "no" ; then
 no_ft=yes
else
 FT2_CFLAGS=`$FT2_CONFIG $ft_config_args --cflags`
 FT2_LIBS=`$FT2_CONFIG $ft_config_args --libs`
 ft_config_major_version=`$FT2_CONFIG $ft_config_args --version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^1/'`
 ft_config_minor_version=`$FT2_CONFIG $ft_config_args --version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^2/'`
 ft_config_micro_version=`$FT2_CONFIG $ft_config_args --version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^3/'`
 ft_min_major_version=`echo $min_ft_version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^1/'`
 ft_min_minor_version=`echo $min_ft_version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^2/'`
 ft_min_micro_version=`echo $min_ft_version | \
 sed 's/^([[0-9]]*).([[0-9]]*).([[0-9]]*)^3/'`
 if test x$enable_fttest = xyes ; then
 ft_config_is_lt=""
 if test $ft_config_major_version -lt $ft_min_major_version ; then
 ft_config_is_lt=yes
 else
 if test $ft_config_major_version -eq $ft_min_major_version ; then
 if test $ft_config_minor_version -lt $ft_min_minor_version ; then
 ft_config_is_lt=yes
 else
 if test $ft_config_minor_version -eq $ft_min_minor_version ; then
 if test $ft_config_micro_version -lt $ft_min_micro_version ; then
 ft_config_is_lt=yes
 fi
 fi
 fi
 fi
 fi
 fi
fi

```

```

 fi
 fi
fi
fi
if test x$ft_config_is_lt = xyes ; then
 no_ft=yes
else
 ac_save_CFLAGS="$CFLAGS"
 ac_save_LIBS="$LIBS"
 CFLAGS="$CFLAGS $FT2_CFLAGS"
 LIBS="$FT2_LIBS $LIBS"

 #
 # Sanity checks for the results of freetype-config to some extent.
 #
 AC_RUN_IFELSE([
 AC_LANG_SOURCE([[

#include <ft2build.h>
#include FT_FREETYPE_H
#include <stdio.h>
#include <stdlib.h>

int
main()
{
 FT_Library library;
 FT_Error error;

 error = FT_Init_FreeType(&library);

 if (error)
 return 1;
 else
 {
 FT_Done_FreeType(library);
 return 0;
 }
}

]])
],
[],
[no_ft=yes],
[echo $ECHO_N "cross compiling; assuming OK... $ECHO_C"])

CFLAGS="$ac_save_CFLAGS"

```

```

LIBS="$ac_save_LIBS"
fi # test $ft_config_version -lt $ft_min_version
fi # test x$enable_fttest = xyes
fi # test "$FT2_CONFIG" = "no"

```

```

if test x$no_ft = x ; then
 AC_MSG_RESULT([yes])
 m4_if([$2], [], [:], [$2])
else
 AC_MSG_RESULT([no])
 if test "$FT2_CONFIG" = "no" ; then
 AC_MSG_WARN([

```

The freetype-config script installed by FreeType 2 could not be found. If FreeType 2 was installed in PREFIX, make sure PREFIX/bin is in your path, or set the FT2\_CONFIG environment variable to the full path to freetype-config.

```

])
else
 if test x$ft_config_is_lt = xyes ; then
 AC_MSG_WARN([

```

Your installed version of the FreeType 2 library is too old. If you have different versions of FreeType 2, make sure that correct values for --with-ft-prefix or --with-ft-exec-prefix are used, or set the FT2\_CONFIG environment variable to the full path to freetype-config.

```

])
else
 AC_MSG_WARN([

```

The FreeType test program failed to run. If your system uses shared libraries and they are installed outside the normal system library path, make sure the variable LD\_LIBRARY\_PATH (or whatever is appropriate for your system) is correctly set.

```

])
fi
fi

```

```

FT2_CFLAGS=""
FT2_LIBS=""
m4_if([$3], [], [:], [$3])
fi

```

```

AC_SUBST([FT2_CFLAGS])
AC_SUBST([FT2_LIBS])

```

```

end of freetype2.m4

```

Found in path(s):

\* /opt/cola/permits/1662805110\_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-xz/usr/share/aclocal/freetype2.m4

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/\*  
\*\*\*\*\*  
\*/

\*

\* ftsizes.h

\*

\* FreeType size objects management (specification).

\*

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/\*  
\*\*\*\*\*  
\*/

\*

\* ftgasp.h

\*

\* Access of TrueType's 'gasp' table (specification).

\*

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```
/*
*
* ftconfig.in
*
* UNIX-specific configuration file (specification only).
*
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*
*/
```

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```
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xz/usr/include/freetype2/freetype/config/ftconfig.h
```

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```
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*
* ftglyph.h
*
* FreeType convenience functions to handle glyphs (specification).
*
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*/
```

Found in path(s):

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xz/usr/include/freetype2/freetype/ftglyph.h
```

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```
/*
*
```



```
* fterrdef.h
*
* FreeType error codes (specification).
*
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*
*/
```

Found in path(s):

```
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xz/usr/include/freetype2/freetype/fterrdef.h
```

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```
/******
```

```
*
* ttables.h
*
* Basic SFNT/TrueType tables definitions and interface
* (specification only).
*
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*
*/
```

Found in path(s):

```
* /opt/cola/permits/1662805110_1683813534.1497633/0/freetype2-2-10-1-1-x86-64-pkg-tar-
xz/usr/include/freetype2/freetype/ttables.h
```

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```
/******
```

```
*
* ftbdf.h
*
* FreeType API for accessing BDF-specific strings (specification).
```

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xz/usr/include/freetype2/freetype/ftbdf.h

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\*  
\* ftotval.h  
\*  
\* FreeType API for validating OpenType tables (specification).  
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\*  
\* ftoutln.h  
\*  
\* Support for the FT\_Outline type used to store glyph shapes of  
\* most scalable font formats (specification).  
\*  
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xz/usr/include/freetype2/freetype/ftoutln.h

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The files

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getfd.c getkeycodes.c getunicmap.c kbd\_mode.c loadunicmap.c

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setleds.c setmetamode.c setvesablank.c showconsolefont.c

spawn\_console.c spawn\_login.c

chvt.1 deallocvt.1 kbd\_mode.1 setleds.1 setmetamode.1

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kbd.FAQ.\*

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The file

openvt.c

is Copyright (C) 1994 by Jon Tombs <jon@gtex02.us.es>

portions also authors: Andries E. Brouwer <aeb@cw.nl>

Joshua Spoerri <josh@cooper.edu>

Chuck Martin <cmartin@bigfoot.com>

Alexey Gladkov <gladkov.alexey@gmail.com>

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Dustin Kirkland <kirkland@canonical.com>

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```
/* lib/font/fontfile/gunzip.c
```

```
written by Mark Eichin <eichin@kitten.gen.ma.us> September 1996.
```

```
intended for inclusion in X11 public releases. */
```

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Version 3, 29 June 2007

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To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>

Copyright (C) <year> <name of author>

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.
```

The hypothetical commands ``show w'` and ``show c'` should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than ``show w'` and ``show c'`; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the program
`Gnomovision' (which makes passes at compilers) written by James Hacker.
```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a

"work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library



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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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<signature of Ty Coon>, 1 April 1990  
Ty Coon, President of Vice

That's all there is to it!

Here is a list of the main contributors to lm-sensors version 3.

\* Frodo Looijaard

Original author of libsensors, sensors-detect, sensors and isadump.

\* Merlin Hughes

Original author of sensord.

\* Bob Schlaermann

Dynamic chip feature detection (a.k.a. generic chip support) in libsensors and sensors.

\* Mark M. Hoffman

Many improvements to the libsensors configuration file scanner.

\* Jean Delvare

New libsensors API, and migration of sensors and sensord thereto.

Many optimizations in libsensors and sensors.

Configuration file converter.

Rewrite of sensors-detect.

Support for multiple configuration files in libsensors.

## 1.561 socat 1.7.3.3

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Version 2, June 1991

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The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the

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# 1.563 libnsl 1.2.0-1

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Version 2.1, February 1999

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# 1.564 spirv-tools 2019.3-2

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Revision history for SPIRV-Tools

v2019.2 2019-02-20

- General:

- Support SPV\_EXT\_physical\_storage\_buffer
- A number of memory leak have been fixed.
- Removed use of deprecated Google test macro:
- Changed the BUILD.gn to only build tests in Chromium.
- Optimizer
  - Upgrade memory model improvements for modf and frexp.
  - Add a new pass to move loads closer to their uses: code sinking.
  - Invalidating the type manager now invalidates the constnat manager.
  - Expand instrumentation pass for bindless bounds checking to runtime-sized descriptor arrays.
  - Add a new pass that removes members from structs that are not used: dead member elimination.

Fixes:

- #2292: Remove undefined behaviour when folding bit shifts.
- #2294: Fixes for instrumentation code.
- #2293: Fix overflow when folding -INT\_MIN.
- #2374: Don't merge unreachable blocks when merging blocks.
- Validator
  - Support SPV\_KHR\_no\_integer\_wrap and related decorations.
  - Validate Vulkan rules for OpTypeRuntimeArray.
  - Validate NonWritable decoration.
  - Many WebGPU specific validation rules were added.
  - Validate variable pointer related function call rules.
  - Better error messages.
- Fixes:
  - #2307: Check forwards references in OpTypeArray.
  - #2315, #2303: Fixed the layout check for relaxed layout.
  - #1628: Emit an error when an OpSwitch target is not an OpLabel.
- Reduce
  - Added more documentation for spirv-reduce.
  - Add ability to remove OpPhi instructions.
  - Add ability to merge two basic blocks.
  - Add ability to remove unused functions and unused basic blocks.
- Fixes:

v2019.1 2019-01-07

- General:
  - Created a new tool called spirv-reduce.
  - Add cmake option to turn off SPIRV\_TIMER\_ENABLED (#2103)
  - New optimization pass to update the memory model from GLSL450 to VulkanKHR.
  - Recognize OpTypeAccelerationStructureNV as a type instruction and ray tracing storage classes.
  - Fix GCC8 build.
  - Add --target-env flag to spirv-opt.
  - Add --webgpu-mode flag to run optimizations for webgpu.
  - The output disassembled line number instead of byte offset in validation errors. (#2091)
- Optimizer
  - Added the instrumentation passes for bindless validation.
  - Added passes to help preserve OpLine information (#2027)
  - Add basic support for EXT\_fragment\_invocation\_density (#2100)
  - Fix invalid OpPhi generated by merge-return. (#2172)
  - Constant and type manager have been turned into analyses. (#2251)
- Fixes:
  - #2018: Don't inline functions with a return in a structured CFG construct.
  - #2047: Fix bug in folding when volatile stores are present.
  - #2053: Fix check for when folding floating pointer values is allowed.
  - #2130: Don't inline recursive functions.
  - #2202: Handle multiple edges between two basic blocks in SSA-rewriter.
  - #2205: Don't unswitch a latch condition during loop unswitch.
  - #2245: Don't fold branch in loop unswitch. Run dead branch elimination to fold them.
  - #2204: Fix eliminate common uniform to place OpPhi instructions correctly.
  - #2247: Fix type mismatches caused by scalar replacement.

- #2248: Fix missing OpPhi after merge return.
- #2211: After merge return, fix invalid continue target.
- #2210: Fix loop invariant code motion to not place code between merge instruction and branch.
- #2258: Handle CompositeInsert with no indices in VDCE.
- #2261: Have replace load size handle exact with no index.
- Validator
  - Changed the naming convention of outputting ids with names in diagnostic messages.
  - Added validation rules for UniformConstant variables in Vulkan.
  - #1949: Validate uniform variable type in Vulkan
  - Ensure for OpVariable that result type and storage class operand agree (#2052)
  - Validator: Support VK\_EXT\_scalar\_block\_layout
  - Added Vulkan memory model semantics validation
  - Added validation checks specific to WebGPU environment.
  - Add support for VK\_EXT\_Transform\_feedback capabilities (#2088)
  - Add validation for OpArrayLength. (#2117)
  - Ensure that function parameter's type is not void (#2118)
  - Validate pointer variables (#2111)
  - Add check for QueueFamilyKHR memory scope (#2144)
  - Validate PushConstants annotation and type (#2140)
  - Allow Float16/Int8 for Vulkan 1.0 (#2153)
  - Check binding annotations in resource variables (#2151, #2167)
  - Validate OpForwardPointer (#2156)
  - Validate operation for OpSpecConstantOp (#2260)
- Fixes:
  - #2049: Allow InstanceId for NV ray tracing
- Reduce
  - Initial commit with a few passes to reduce test cases.
  - Validation is run after each reduction step.
- Fixes:

v2018.6 2018-11-07

- General:
  - Added support for the Nvidia Turing and ray tracing extensions.
  - Make C++11 the CXX standard in CMakeLists.txt.
  - Enabled a parallel build for MSVC.
  - Enable pre-compiled headers for MSVC.
  - Added a code of conduct.
  - EFFCEE and RE2 are now required when building the tests.
- Optimizer
  - Unrolling loops marked for unrolling in the legalization passes.
  - Improved the compile time of loop unrolling.
  - Change merge-return to create a dummy loop around the function.
  - Small improvement to merge-blocks to allow it to merge more often.
  - Enforce an upper bound for the ids, and add option to set it.
  - #1966: Report error if there are unreachable blocks before running merge return
- Fixes:
  - #1917: Allow 0 (meaning unlimited) as a parameter to --scalar-replacement

- #1915: Improve handling of group decorations.
- #1942: Fix incorrect uses of the constant manager. Avoids type mismatches in generated code.
- #1997: Fix dead branch elimination when there is a loop in folded selection.
- #1991: Fixes legality check in if-conversion.
- #1987: Add nullptr check to array copy propagation.
- #1984: Better handling of OpUnreachable in ADCE.
- #1983: Run merge return on reachable functions only.
- #1956: Handled atomic operations in ADCE.
- #1963: Fold integer divisions by 0 to 0.
- #2019: Handle MemberDecorateStringGOOGLE in ADCE and strip reflect.
- Validator
  - Added validation for OpGroupNonUniformBallotBitCount.
  - Added validation for the Vulkan memory model.
  - Added support for VK\_KHR\_shader\_atddomic\_int64.
  - Added validation for execution modes.
  - Added validation for runtime array layouts.
  - Added validation for 8-bit storage.
  - Added validation of OpPhi instructions with pointer result type.
  - Added checks for the Vulkan memory model.
  - Validate MakeTexelAvailableKHR and MakeTexelVisibleKHR
  - Allow atomic function pointer for OpenCL.
  - FPRounding mode checks were implemented.
  - Added validation for the id bound with an option to set the max id bound.
- Fixes:
  - #1882: Improve the validation of decorations to reduce memory usage.
  - #1891: Fix an potential infinite loop in dead-branch-elimination.
  - #1405: Validate the storage class of boolean objects.
  - #1880: Identify arrays of type void as invalid.
  - #487: Validate OpImageTexelPointer.
  - #1922: Validate OpPhi instructions are at the start of a block correctly.
  - #1923: Validate function scope variable are at the start of the entry block.

v2018.5 2018-09-07

- General:
  - Support SPV\_KHR\_vulkan\_memory\_model
  - Update Dim capabilities, to match SPIR-V 1.3 Rev 4
  - Automated build bots no run tests for the VS2013 case
  - Support Chromium GN build
  - Use Kokoro bots:
    - Disable Travis-CI bots
    - Disable AppVeyor VisualStudio Release builds. Keep VS 2017 Debug build
  - Don't check export symbols on OSX (Darwin): some installations don't have 'objdump'
  - Reorganize source files and namespaces
  - Fixes for ClangTidy, and whitespace (passes 'git cl presubmit --all -uf')
  - Fix unused param compile warnings/errors when Effcee not present
  - Avoid including time headers when timer functionality is disabled
  - Avoid too-stringent warnings flags for Clang on Windows
  - Internal refactoring



- Add hooks for automated fuzzing
- Add testing of command line executables
- #1688: Use binary mode on stdin; fixes "spirv-dis <foo.spv" on Windows
- Optimizer
  - The optimizer validates the module before it begins
  - Add API to register passes by string name
  - Fold a vector shuffle feeding a vector shuffle
  - Add -combine-access-chains transform
  - Refactor how IRContext is handled by passes
  - Improve bookkeeping for instruction result type and result id
  - Fix over-duplication of decorations
  - Fix handling of exits from selections in dead-branch elimination, and dead code elimination.
  - Fix handling of certain kinds of flow control in merge-return
- Fixes:
  - #1721: Fix size bug when folding vector shuffles
  - #1722: Fix size infinite loop when folding vector shuffles
  - #1724: Fix finding a constant of a specific type
  - #1727: Dead branch elim: Reorder blocks if needed to satisfy dominance rule
  - #1729: Handle VariablePointers cases in various optimizations
  - #1731: Fix vector shuffle with literal id indicating undef value
  - #1736: Fix handling of decorations and phis in merge-return
  - #1787: Fix handling of decorations related to access chains
  - #1865: Avoid leaking memory for SPIR-V constant values
- Validator
  - Improve error messages
  - Avoid platform-dependent traversal ordering, to ensure consistent messages
  - Use libspirv::Instruction where possible
  - Add option to skip all block layout checks
  - Validate all type IDs
  - Validate uses of OpFunction
  - Validate uses of OpTypeFunction
  - Disallow a struct containing its own type <https://crbug.com/874372>
  - #1685: Vulkan permits non-monotonic offsets for block members
  - #1697: Enforce block layout rules even when using relaxed block layout option
  - #1719: Fix line number for vector shuffle validation error
  - #1789: Avoid assertion failure when validating some functions
  - #1800: Fix validation of OpCopyMemorySized
  - #1822: Stop enforcing struct member offset monotonicity
  - #1831: Disallow void members in structs

v2018.4 2018-07-08

- General:
  - Support SPV\_KHR\_8bit\_storage
  - Add gclient and presubmit configurations
  - Enable Kokoro build bots (#1625)
  - Group tests into fewer executables, reduces load on CI
  - Port test script to Python 3

- Symbol export tests respect SPIRV\_SKIP\_TESTS
- #1596: Operand lookup succeeds if enabled by a capability
- #1624: Instruction lookup succeeds if enabled by a capability
- Refactoring namespaces:
  - #1678: Change libspirv to spvtools
  - Code in source/utils moved into spvtools::utils
  - Code in source/comp moved into spvtools::comp
- Optimizer:
  - Remove insert-extract-elim pass. Use simplification pass instead.
  - Preserve instruction-to-block mapping in most passes, to reduce runtime.
  - Small vector optimization for operands
  - Add pass to move Private variables to Function. Increase opportunity to optimize.
  - Fixes:
    - #1120: Check static uses of entry point interfaces
    - #1372: Avoid merging some structs, to preserve names for reflection
    - #1577: Scalar replacement uses only undecorated types.
    - #1578: Fix handling of forward-pointer types, and types embedding pointers to themselves.
    - #1591: Inliner: Callee variable with initializer should have a store at the call site.
    - #1634: Fix crash: Use type id in vector type lookup
    - #1649: Fix assert in compact-ids pass
    - Fix constant folder: ensure it uses the right type
    - #1659: Folding rules added to IRContext. Avoids leak.
- Validator
  - Add work-in-progress WebGPU environment. Disallows OpUndef
  - #670, #1581: Improve error messages; disassemble instruction
  - #491: Check structured switches
  - #937: Check layout rules for Block and BufferBlock in Uniform, StorageBuffer, PushConstant
  - #1281: Check invalid branches into structured constructs
  - #1522: Disallow array-of-arrays with DescriptorSets
  - #1577: Allow duplicate pointer types.
  - #1581: Better messages: output ID names along with numbers in more cases.
  - #1597: Check Vulkan 1.1 capabilities
  - #1618: Check invalid exit from structured case construct
  - #1622: Run IdPass before DataRulesPass
  - #1632: Reduce test time by artificially lowering limits in limit test
  - #1638: Block-decorated structs member order must respect offset order
  - #1657: Improve CFG validation diagnostics
  - Khronos SPIR-V #337: GLSL.std.450 Refract instruction Eta param can be any float scalar.
  - #1606: PushConstant Blocks follow storage-buffer layout rules
  - #1664: Check layout of StorageBuffer variables with Block decoration, using storage buffer rules
  - #1666: Layout validation should permit {vec3; float} packing
  - #1637, #1668: Layout validation uses RowMajor, ArrayStride, MatrixStride properly
- Linker
  - Avoid buffer overrun when creating OpModuleProcessed

v2018.3 2018-05-25

- General:
  - Support SPV\_EXT\_descriptor\_indexing
  - Support SPV\_GOOGLE\_decorate\_string
  - Support SPV\_GOOGLE\_hlsl\_functionality1
  - Support SPV\_NV\_shader\_subgroup\_partitioned
  - Use "unified1" grammar from SPIRV-Headers
  - Simplify support for new extensions. Assembler, disassembler, and simple validation support is automatic if new tokens are introduced with appropriate extension attributes in the "unified1" SPIR-V core grammar.
  - Disassembler: Emit more digits on floating point, to reliably reproduce all significand bits. (Use std::max\_digits10 instead of std::digits10)
  - Fix compilation for old XCode versions: Explicit construction required for std::set.
- Optimizer:
  - Add --strip-reflect
  - Add --time-report
  - Add --loop-fission
  - Add loop fusion.
  - Add loop peeling pass and internal utility.
  - Improve optimizer runtime.
  - Merge-return now works with structured control flow.
  - New (faster) SSA rewriter to convert local loads and stores to SSA IDs and phis. Can replace load/store elimination passes.
  - Fix instruction folding case: insertion that feeds and extract, when the extract remains.
  - Fold OpDot.
  - Fold OpFNegate.
  - Fold multiply and divide of same value.
  - Fold FClamp feeding a compare.
  - Fold OpLoad feeding an extract, to reduce excessive copying. (#1547)
  - Fold Fmix feeding an extract.
  - Use simplification pass instead of insert-extract elimination.
  - Constant fold OpVectorTimesScalar.
  - Copy propagate arrays, in simple cases.
  - Aggressive dead code elimination: Can remove more instructions, e.g. derivatives.
  - Aggressive dead code elimination: Remove Workgroup variables that are written but not read.
  - Better handling of OpImageTexelPointer
  - Initial utilities for scalar evolution.
  - Add Vector dead code elimination.
  - Each pass can only run once.
  - Allow code hosting in if-conversion.
  - Add external interface for adding a PassToken, so external code can make their own passes.
- Fixes:
  - #1404: Don't optimize away the compute compute workgroup size constant.
  - #1407: Remove a bad assertion
  - #1456: Fix bug in SSA rewriter related to variables updated in loops.
  - #1487: Fix long runtime in Dead insertion elimination: Don't revisit select phi nodes.
  - #1492: Aggressive dead code elimination can remove OpDecorateStringGOOGLE.

- #1527: Fix inlining of functions having OpKill and OpUnreachable.
- #1559: Fix assert failure in reduce-load-size pass.
- #1556: Aggressive dead code elimination: Fix handling of OpCopyMemory.
- Validator:
  - Check Vulkan built-in variables
  - Check Vulkan-specific atomic result type rule.
  - Relax control barrier check for SPIR-V 1.3. Fixes #1427
  - Check OpPhi.
  - Check OpMemoryModel.
  - Stop checking sizes derived from spec-constants.
  - Re-enable checks for OpUConvert.
  - Vulkan: Fix check for PrimitiveId: Permit as Input in fragment shader.
  - Validate binary version for the given target environment.
  - Add tests for OpBranch checks.
  - Vulkan 1.1: Check scope for non-uniform subgroup operations.
  - Fix checks for SPV\_AMD\_gpu\_shader\_int16.
  - Fix logical layout check for OpDecorateId.
  - Fix checks for ViewportIndex & Layer for Vulkan and SPV\_EXT\_shader\_viewport\_index\_layer.
  - Fixes:
    - #1470: Vulkan: Don't restrict WorkgroupSize to Input storage class.
    - #1469: Vulkan: Permit Subgroup memory scope for Vulkan 1.1.
    - #1472: Per-vertex variable validation fixes.
    - #1483: Validate barrier execution scopes for Vulkan 1.1.
- Fixes:
  - #898: Linker properly removes FuncParamAttr from imported symbols.
  - #924, #1174: Fix handling of decoration groups in optimizer, linker.

v2018.2 2018-03-07

- General:
  - Support SPIR-V 1.3 and Vulkan 1.1.
    - Default target environment is now SPIR-V 1.3. For command-line tools, use the --target-env option to override the default. Examples:
 

```
Generate a SPIR-V 1.0 binary instead of SPIR-V 1.3
spirv-as --target-env spv1.0 a.spvasm -o a.spv
spirv-as --target-env vulkan1.0 a.spvasm -o a.spv
Validate as Vulkan 1.0
spirv-val --target-env vulkan1.0 a.spv
```
  - Support SPV\_GOOGLE\_decorate\_string and SPV\_GOOGLE\_hlsl\_functionality1
- Fixes:
  - Fix Android.mk build. Compilation was failing due to missing definitions of SpvCapabilityFloat16ImageAMD and other enumerated values.
  - Optimizer: Avoid generating duplicate names when merging types.
  - #1375: Validator: SPV\_AMD\_gpu\_shader\_half\_float implicitly allows declaration of the 16-bit floating point type.
  - #1376: Optimizer: Avoid folding half-precision float.

v2018.1 2018-03-02

- General:

- Support Visual Studio 2013 again. (Continue support for VS 2015 and VS 2017.)
- Support building SPIRV-Tools as a shared library.
- Improve the HLSL legalization optimization recipe. #1311
- Optimizer:
  - General speedups.
  - Remove generic dead code elimination functionality from transforms:
    - eliminate-local-single-block
    - eliminate-local-single-store
    - eliminate-local-multi-store
 To recover the previous behaviour, a recipe using those transforms should now also invoke the --eliminate-dead-code-aggressive transform.
  - Improve folding, including coverage for floating point, OpSelect, and arithmetic with non-trivial constant operands.
  - Add loop-invariant code motion pass.
  - Add loop-unrolling pass, for honouring unroll hits.
  - Add loop-unswitch pass.
  - Add instruction simplification pass.
  - Aggressive dead code elimination: Understands capability hierarchy when finding instructions it can eliminate (combinators). (PR #1268)
  - CCP can now fold floating point arithmetic. #1311
- Validator:
  - Validate barrier instructions.
  - Check Vulkan-specific rules for atomics.
  - Check Vulkan prohibition of Location or Component decorations on BuiltIn variables.
- Linker:
  - Add --verify-ids option
  - Add option to allow a resulting module to be partially linked.
  - Handle OpModuleProcessed (instructions in SPIR-V layout section 7c)
- Fixes:
  - #1265: Optimizer: Fix use-after free bug in if-conversion. (Fix object lifecycle bug in type manager.)
  - #1282: Fix new warnings found by GCC 8.0.1.
  - #1285: Optimizer: Fix random failures during inlining. (Dangling references in DefUseManager)
  - #1295: Optimizer: Fix incorrect handling of Phi nodes in CCP.
  - #1300: Fix CCP: avoid bad CCP transitions and unsettled values.
  - #1304: Avoid static-duration variables of class type (with constructors).
  - #1323: Fix folding of an insert composite feeding a composite extract.
  - #1339: Fix CCP: Handle OpConstantNull boolean values as conditions.
  - #1341: DCEInst: Keep atomic instructions (and some others with side effects).
  - #1354: Don't fold integer division.
  - #1357: Support OpConstantNull in folding.
  - #1361: CCP: Fix handling of non-constant module-scope values

v2018.0 2018-02-02

- General
  - VisualStudio 2013 is no longer supported. VisualStudio 2015 is supported.
  - Use "include/unified1" directory from SPIRV-Headers. Requires recent SPIRV-Headers source.
- Disassembler: spirv-dis adds --color option to force color disassembly.

- Optimizer:
  - Add pass to eliminate dead insertions.
  - Aggressive dead code elimination now removes OpSwitch constructs.
  - Block merging occurs in more cases.
  - Add driver workaround transform: replace OpUnreachable with harmless branch to merge.
  - Improve instruction folding framework.
  - Add loop analysis.
  - Add scalar replacement of aggregates to size-optimization recipe.
  - Add pass to replace instructions invalid for a shader stage, with a harmless value.  
This changes the semantics of the program! Not for general use!
  - Rearrange and add passes to performance-optimization recipe, to produce better results.
- Validator:
  - Validate OpenCL extended instructions.
  - Shaders can't perform atomics on floats.
  - Validate memory semantics values in atomics.
  - Validate instruction-adjacency constraints, e.g. OpPhi predecessors, merge instructions immediately precede branches.
- Fixes:
  - PR 1198: Optimizer: Fix CCP in presence of matrix constants.
  - #1199: Optimizer: Fix CCP: don't propagate spec constants.
  - #1203: Optimizer: Fix common uniform elim bug introduced by refactoring.
  - #1210: Optimizer: Aggressive dead code elimination: Fix 'break' identification.
  - #1212: Optimizer: Aggressive dead code elimination: Was skipping too many instructions.
  - #1214: Optimizer: Aggressive dead code elimination: Fix infinite loop.
  - #1228: Optimizer: Fix CCP: Handling of varying Phi nodes; was resulting in infinite loop.
  - #1245: Optimizer: Dead branch elimination: Avoid a null pointer dereference.
  - #1250: Optimizer: Dead branch elimination: Avoid spuriously reporting a change.

v2017.3 2018-01-12

- General:
  - Support DebugInfo extended instruction set, targeted at OpenCL environments.  
See the SPIR-V Registry.
  - Generate a SPIRV-Tools.pc file for pkg-config.
- Optimizer:
  - Progress for legalization of code generated from HLSL (issue #1118):
    - Add --legalize-hlsl option to run transforms used to transform intermediate code generated by HLSL to SPIR-V for Vulkan compilers. Those compilers normally run these transforms automatically. This option is used for developing those transforms.
    - Add Private-to-Function variable conversion for modules with logical addressing.
  - Add --ccp: SSA Conditional Constant Propagation (CCP)
  - Add --print-all to show disassembly for each optimization pass.
  - Internal: Add loop descriptors and post-order tree iterator.
  - Generalized dead branch elimination
  - Aggressive dead code elimination (ADCE) now removes dead functions and module-scope variables.
  - Vector extract/insert elimination now optimizes through some cases of

VectorShuffle, and GLSL.std.450 Mix extended instruction.

- Validator:

- Add validation for GLSL.std.450 extended instruction set.
- Check out of bounds composite accesses, where that's statically computable. Fixes #1112.
- Check upper bits of literal numbers that aren't a multiple of 32-bits wide.
- More validation of primitive instructions
- Add optional "relaxed" checking logical addressing mode to permit some cases of pointer-to-pointer. Contributes to HLSL legalization (issue #1118).

- Fixes:

- #1100: Validator: Image operand Sample can be used with OpImageSparseFetch, OpImageSparseRead.
- #1108: Remove duplicates transform was incorrectly removing non-duplicate decorations.
- #1111: Optimizer's type manager could reference deleted memory.
- #1112: Fix decoration equality check, e.g. it is now symmetric.
- #1129: Validator now disallows Dim=SupbaseData for OpImageSparseRead.
- #1143: Fix CCP: Was generating incorrect code for loops.
- #1153: Fix CCP crash.
- #1154: Optimizer's internal instruction-to-block mappings were sometimes inconsistent.
- #1159: Fix CCP infinite loop.
- #1168: Fix dead branch elimination intermittently generating incorrect code. Fixes <https://github.com/KhronosGroup/glslang/issues/1205>
- #1186: Fix validation of PackDouble2x32 and UnpackDouble2x32

v2017.2 2017-12-15

- General:

- Support OpenCL 1.2, 2.0 target environments, including embedded profiles
- Add CONTRIBUTING.md
- Fix exit status code for spirv-link
- Disassembler: Enable emitting ANSI colour codes to a string
- Library avoids polluting global namespace. The libraries can export C and C++ symbols starting with "spv", or in a C++ namespace. Add a test for this.
- Linux release builds include debug information, for easier profiling
- Build bots no longer test VisualStudio 2013
  - Testing dependency RE2 requires VisualStudio 2015 or later
- Build bots check code formatting

- Optimizer:

- Add --skip-validation to spirv-opt
- Add dominance tree analysis
- Add generic value propagation engine
- Add global redundancy elimination within a function
- Add scalar replacement of function-scope variables of composite type
- Aggressive dead code elimination: Remove empty loops
- Killing an instruction notifies the IRContext
- IRContext::KillInst deletes the instruction
- Move CFG analysis to IRContext

- Add constant manager
- Fix: Don't consider derivative instructions as combinators.
- Fix: Don't delete an instruction twice in local dead-code-elimination
- Fix: Don't consider derivative instructions as combinators.
- Validator:
  - Finish checking of image instructions (Section 3.32.10)
    - Check sparse image instructions
    - Check OpTypeImage, OpTypeSampleImage
  - Check composite instructions (Section 3.32.12)
  - Check atomic instructions (Section 3.32.18)
  - Check OpEmitStreamVertex, OpEndStreamPrimitive instructions
  - Re-enable validation of OpCopyObject
  - OpKill, image ImplicitLod and QueryLod instructions can only be used in Fragment shaders.
  - Fixes for image instruction validation:
    - Lod image operand only usable with ExplicitLod and OpImageFetch
    - ExplicitLod Lod image operand must be float scalar
    - OpImageFetch Lod image operand must be int scalar
    - OpImageGather component operand must be 32-bits (integer scalar)
    - OpImageQuerySizeLod Lod must be integer scalar
- Fixes:
  - #622: Remove names and decorations when inlining
  - #989: Aggressive dead code elim: Don't optimize away live breaks from a loop
  - #991: Fix validation of SPV\_AMD\_shader\_ballot
  - #1004: Use after free of an instruction, in remove-duplicates transform
  - #1007: OpImageRead not required to return 4-component vector
  - #1009: OpImageRead can return scalar int/float types
  - #1011: OpImageWrite should allow scalar int/float texel types
  - #1012: Fix validate Dref type check
  - #1017: Load-store elimination considers variable initializations
  - #1034: Fix Windows debug build: operator< should be a weak ordering
  - #1083: Inlining: Set parent (function) for each inlined basic block.
  - #1075: Aggressive dead code elimination: Was leaving dangling references to removed blocks.

v2017.1 2017-11-23

- Update README with details on the public\_spirv\_tools\_dev@kronos.org mailing list.
- General:
  - Automatically deploy built artifacts to GitHub Releases
  - Add a Linker (module combiner). Under development.
  - Add Android.mk for Android NDK builds.
  - Add the 'effcee' library as an optional dependency for use in tests. Eventually it will be a required dependency, once downstream projects have a chance to adjust. Requires 're2' library.
  - Avoid static-duration variables of class type (with constructors).
  - Hack around bugs in gcc-4.8.1 template handling
  - Faster opcode lookup
- Validator:



- Recognize extensions listed on SPIR-V registry, through #25 SPV\_AMD\_shader\_fragment\_mask
- Validator issues an info message when it sees an unrecognized extension.
- Type check basic arithmetic operations
- Type check carry/extended arithmetic operations
- Type check vector arithmetic operations
- Type check Relational and Logical instructions
- Type check Bit instructions
- Check type uniqueness rules
- Check conversion instructions
- Check image instructions
- Check derivative instructions
- Check OpVectorShuffle
- Check OpBranchConditional
- OpModuleProcessed is only allowed after debug names section and before annotations section.
- Checks the right kind of return is called for each function (void or non-void).
- Add option to relax type check when storing structs (--relax-store-struct)
- Optimizer:
  - Refactoring internal representation of the module, including:
    - IRContext: owns a module and manages analyses
    - Instructions are owned by intrusive lists, and have unique IDs
    - BasicBlock owns its instruction list.
    - DefUseManager: change representation of uses, for faster processing on large modules.
  - Add high level recipes: -O, -Os, and -Oconfig  
Recipes for -O and -Os are under development.
  - Add eliminate-dead-function transform
  - Add strength reduction transform: For now, convert multiply by power of 2 to a bit shift.
  - Add CFG cleanup transform
  - Add removal of dead module-scope variables
  - Add merge-return transform for modules without structured control flow
  - Add redundancy elimination within a basic block (local value numbering)
  - Extract-insert elimination:
    - Recognize the case where the first instruction in the sequence is an OpCompositeConstruct or OpConstantComposite
    - Handle some cases of nested structs
  - Dead branch elimination now can eliminate entire selection constructs when all arms are dead.
- Compressing codec:
  - Updated algorithm to 1.01, 1.02, 1.03
  - Not built by default. Use -DSPIRV\_BUILD\_COMPRESSION=ON to build.
  - Codec can be parameterized by a customized model.
- Fixes:
  - #728: Fix decoration of inlined functions
  - #798: spirv-as should fail when given unrecognized long option
  - #800: Inliner: Fix inlining function into header of multi-block loop

- #824: Eliminate-local-multi-store: Fix a crash
- #826: Eliminate-local-multi-store: Fix a crash
- #827: Fix crash when compact-ids transform runs before another transform.
- #834: Add Cmake option to build the compressing codec. Off by default.
- #911: Fix classification of Line and NoLine instructions

v2017.0 2017-09-01

- Update README to describe that assembler, disassembler, and binary parser support are based on grammar files from the SPIRV-Headers repository.

v2016.7 2017-09-01

- Add SPIR-V 1.2
- OpenCL 2.2 support is now based on SPIR-V 1.2
- Support AMD extensions in assembler, disassembler:
  - SPV\_AMD\_gcn\_shader
  - SPV\_AMD\_shader\_ballot
  - SPV\_AMD\_shader\_explicit\_vertex\_parameter
  - SPV\_AMD\_shader\_trinary\_minmax
  - SPV\_AMD\_gpu\_shader\_half\_float
  - SPV\_AMD\_texture\_gather\_bias\_lod
  - SPV\_AMD\_gpu\_shader\_int16
- Optimizer: Add support for:
  - Inline all function calls in entry points.
  - Flatten decoration groups. Fixes #602
  - Id compaction (minimize Id bound). Fixes #624
  - Eliminate redundant composite insert followed by extract
  - Simplify access chains to local variables
  - Eliminate local variables with a single store, if possible
  - Eliminate local variables with a several stores, if possible
  - Eliminate loads and stores in same block to local variables
  - Eliminate redundant insert/extract to composite values
  - Aggressive dead instruction elimination
  - Eliminate dead branches
  - Merge blocks when the second can only be preceded by the first
  - Eliminate common uniform loads
- Assembler: Add option to preserve numeric ids. Fixes #625
- Add build target spirv-tools-vimsyntax to generate spvasm.vim, a SPIR-V assembly syntax file for Vim.
- Version string: Allow overriding of wall clock timestamp with contents of environment variable SOURCE\_DATE\_EPOCH.
- Validator implements relaxed rules for SPV\_KHR\_16bit\_storage.
- CMake installation rules use GNUInstallDirs. For example, libraries will be installed into a lib64 directory if that's the norm for the current system.
- Fixes:
  - #500: Parameterize validator limit checks
  - #508: Support compilation under CYGWIN
  - #517: Fix validation when continue (or case) construct is also the head of a

nested control construct.

#551: If a merge block is reachable, it must be *strictly* dominated by its header.

#548: Validator: Error when the reserved OpImageSparseSampleProj\* opcodes are used.

#611: spvtools::Optimizer was failing to save the module to the output binary vector when all passes succeeded without changes.

#629: The inline-entry-points-all optimization could generate invalidly structured code when the inlined function had early returns.

#697: Optimizer's Instruction::ForEachInId method was skipping semantics-id and scope-id.

#755: Inliner: Fix inlining of callee with single Return appearing before the end of the function.

#776: Fix dead branch elimination in presence of complex but dead control flow.

#781: SPV\_KHR\_variable\_pointers allows duplicate pointer types

#782: Inliner: Fix remapping of non-label forward references in callee

#787: Inliner: Fix remapping of inlined entry block when called from single block loop.

#790: Inliner: Fix remapping of inlined entry block when callee has multiple returns.

v2016.6 2016-12-13

- Published the C++ interface for assembling, disassembling, validation, and optimization.
- Support SPV\_KHR\_shader\_draw\_parameters in assembler, disassembler, parser.
- Validator:
  - Add validator API accepting raw binary words
  - Increased coverage:
    - Checks "Data rules" in Universal Validation Rules, section 2.16.1
    - WIP: Universal Limits.
      - The minimum mandated upper bounds are checked.
      - TODO: Parameterize the validator to allow larger limits accepted by a more than minimally capable implementation.
  - OpSampledImage checks
  - OpConstantComposite checks
  - Id bound check
- Disassembler:
  - Generates friendly GLSL-based names for more builtin variables
  - Generates friendly names for numeric OpConstant values
  - Vendor tool info extracted from SPIR-V XML registry file.
- Fixes issues:
  - #429: Validator: Allow OpTypeForwardPointer and OpTypeStruct to reference undefined IDs
  - #482: Validator: OpVariable initializer can be an ID of a module-scope variable

v2016.5 2016-09-16

- Support SPV\_KHR\_shader\_ballot in assembler, disassembler, parser.

- Disassembler: Generate friendly names for built-in variables.
- Partial fixes:
  - #359: Add Emacs helper for automatically disassembling/assembling a SPIR-V binary on file load/save.
- Fixes:
  - #414: Validator: Allow OpUndef for composite constants
  - #415: Validator: Phi can use its own value in some cases.

v2016.4 2016-09-01

- Relicensed under Apache 2.0
- Add optimization passes (in API and spirv-opt command)
  - Fold spec constants defined with OpSpecConstantOp and OpSpecConstantComposite to normal constants with fixed value(s).
- Fixes issues:
  - #318: Relicensed under Apache 2.0

v2016.3 2016-08-24

- Add target environment enums for OpenCL 2.1, OpenCL 2.2, OpenGL 4.0, OpenGL 4.1, OpenGL 4.2, OpenGL 4.3, OpenGL 4.5.
- Add spirv-cfg, an experimental tool to dump the control flow graph as a Graphviz "dot" graph
- Add optimization pass: Eliminate dead constants.
- Add spirv-lesspipe.sh filter utility
- Fixes issues:
  - #288: Check def-use dominance rules for OpPhi (variable,parent) operands
  - #339: Allow OpUndef in types-constants-global-vars section, as required by SPIR-V 1.0 Rev7, 1.1 Rev 3.
  - #340: Avoid race on mkdir during build
  - #365: Relax PointSize, ClipDistance, CullDistance capability check in all environments not just Vulkan 1.0.

v2016.2 2016-08-05

- Validator is incomplete
  - Checks ID use block is dominated by definition block
- Add optimization passes (in API and spirv-opt command)
  - Strip debug info instructions
  - Freeze spec constant to their default values
- Allow INotEqual as operation for OpSpecConstantOp
- Fixes bugs:
  - #270: validator: crash when continue construct is unreachable
  - #279: validator: infinite loop when analyzing some degenerate control flow graphs
  - #286: validator: don't incorrectly generate def-use error for (variable,parent) parameters to OpPhi
  - #290: disassembler: never generate bare % for an identifier
  - #295: validator: def-use dominance check should ignore unreachable uses
  - #276: validator: allow unreachable continue constructs
  - #297: validator: allow an unreachable block to branch to a reachable

merge block

v2016.1 2016-07-19

- Fix <https://github.com/KhronosGroup/SPIRV-Tools/issues/261>  
Turn off ClipDistance and CullDistance capability checks for Vulkan.
- The disassembler can emit friendly names based on debug info (OpName instructions), and will infer somewhat friendly names for most types.  
This is turned on by default for the spirv-dis command line tool.
- Updated to support SPIR-V 1.1 rev 2
  - Input StorageClass, SampledID capability, and SampledBuffer capability do not require Shader capability anymore.

v2016.0 2016-07-04

- Adds v<year>.<index> versioning, with "-dev" indicating work in progress. The intent is to more easily report and summarize functionality when SPIRV-Tools is incorporated in downstream projects.

- Summary of functionality (See the README.md for more):

- Supports SPIR-V 1.1 Rev 1
- Supports SPIR-V 1.0 Rev 5
- Supports GLSL std450 extended instructions 1.0 Rev 3
- Supports OpenCL extended instructions 1.0 Rev 2
- Assembler, disassembler are complete
  - Supports floating point widths of 16, 32, 64 bits
  - Supports integer widths up to 64 bits
- Validator is incomplete
  - Checks capability requirements in most cases
  - Checks module layout constraints
  - Checks ID use-definition ordering constraints, ignoring control flow
  - Checks some control flow graph rules
- Optimizer is introduced, with few available transforms.
- Supported on Linux, OSX, Android, Windows

- Fixes bugs:

- #143: OpenCL pow and pown arguments

Found in path(s):

\* /opt/cola/permits/1665667815\_1683318570.1495242/0/clearlinux-pkgs-spirv-tools-2019-3-2-0-g8ce3342-tar-gz/clearlinux-pkgs-SPIRV-Tools-8ce3342/ChangeLog

## 1.565 libxt 1.2.0-1

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## 1.566 ncurses 6.3

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```
/* nicstar.c v0.22 Jawaid Bazyar (bazyar@hypermall.com)
 * nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
 *
 * Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
 * http://www.hypermall.com/
 * 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
 * interrupts us (except possibly for removal/insertion of the cable?)
 * 10/4/97 - began heavy inline documentation of the code. Corrected typos
 * and spelling mistakes.
 * 10/5/97 - added code to handle PHY interrupts, disable PHY on
 * loss of link, and correctly re-enable PHY when link is
 * re-established. (put back CFG_PHYIE)
 *
 * Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
 *
 * R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
 *
 * Linux driver for the IDT77201 NICStAR PCI ATM controller.
 * PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
 * see init_nicstar() for PHY initialization to change this. This driver
 * expects the Linux ATM stack to support scatter-gather lists
 * (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
```

\*  
\* Implementing minimal-copy of received data:  
\* IDT always receives data into a small buffer, then large buffers  
\* as needed. This means that data must always be copied to create  
\* the linear buffer needed by most non-ATM protocol stacks (e.g. IP)  
\* Fix is simple: make large buffers large enough to hold entire  
\* SDU, and leave <small\_buffer\_data> bytes empty at the start. Then  
\* copy small buffer contents to head of large buffer.  
\* Trick is to avoid fragmenting Linux, due to need for a lot of large  
\* buffers. This is done by 2 things:  
\* 1) skb->destructor / skb->atm.recycle\_buffer  
\* combined, allow nicstar\_free\_rx\_skb to be called to  
\* recycle large data buffers  
\* 2) skb\_clone of received buffers  
\* See nicstar\_free\_rx\_skb and linearize\_buffer for implementation  
\* details.

\*  
\*  
\*  
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\* M. Welsh, 6 July 1996

\*/  
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## 1.569 tar 1.32

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Version 3, 29 June 2007

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```
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```

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## 1.578 libarchive 3.4.0

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Ty Coon, President of Vice

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# 1.580 xz 5.2.7

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* Tim Martin
```

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* Rob Earhart
```

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* Rob Siemborski
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* Rob Earhart
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# 1.586 inetutils 1.9.4-7

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lib/gssapi/mechglue/g\_acquire\_cred.c  
lib/gssapi/mechglue/g\_canon\_name.c  
lib/gssapi/mechglue/g\_compare\_name.c  
lib/gssapi/mechglue/g\_context\_time.c  
lib/gssapi/mechglue/g\_delete\_sec\_context.c  
lib/gssapi/mechglue/g\_dsp\_name.c  
lib/gssapi/mechglue/g\_dsp\_status.c  
lib/gssapi/mechglue/g\_dup\_name.c  
lib/gssapi/mechglue/g\_exp\_sec\_context.c  
lib/gssapi/mechglue/g\_export\_name.c  
lib/gssapi/mechglue/g\_glue.c  
lib/gssapi/mechglue/g\_imp\_name.c  
lib/gssapi/mechglue/g\_imp\_sec\_context.c  
lib/gssapi/mechglue/g\_init\_sec\_context.c  
lib/gssapi/mechglue/g\_initialize.c  
lib/gssapi/mechglue/g\_inquire\_context.c  
lib/gssapi/mechglue/g\_inquire\_cred.c  
lib/gssapi/mechglue/g\_inquire\_names.c  
lib/gssapi/mechglue/g\_process\_context.c  
lib/gssapi/mechglue/g\_rel\_buffer.c  
lib/gssapi/mechglue/g\_rel\_cred.c  
lib/gssapi/mechglue/g\_rel\_name.c  
lib/gssapi/mechglue/g\_rel\_oid\_set.c  
lib/gssapi/mechglue/g\_seal.c  
lib/gssapi/mechglue/g\_sign.c  
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lib/gssapi/mechglue/g\_userok.c  
lib/gssapi/mechglue/g\_utils.c  
lib/gssapi/mechglue/g\_verify.c  
lib/gssapi/mechglue/gssd\_pname\_to\_uid.c  
lib/gssapi/mechglue/mglueP.h  
lib/gssapi/mechglue/oid\_ops.c  
lib/gssapi/spnego/gssapiP\_spnego.h  
lib/gssapi/spnego/spnego\_mech.c

and the initial implementation of incremental propagation, including the following new or changed files:

include/iprop\_hdr.h  
kadmin/server/ipropd\_svc.c  
lib/kdb/iprop.x  
lib/kdb/kdb\_convert.c  
lib/kdb/kdb\_log.c  
lib/kdb/kdb\_log.h

lib/krb5/error\_tables/kdb5\_err.et  
kprop/kpropd\_rpc.c  
kprop/kproplog.c

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/\* zlib.h -- interface of the 'zlib' general purpose compression library  
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## 1.594 shadow 4.7-2

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## 1.596 python-setuptools 40.6.2

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## 1.599 htop 3.2.1

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## Constant-time SSSE3 AES core implementation.

## version 0.1

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## By Mike Hamburg (Stanford University), 2009

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