



# Open Source Used In Astro Phase 8B for PACE HDPVR 810

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# 1.5 cJSON r40

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# 1.6 dom4j (DUPLICATE) 1.6.1

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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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```
** NOTE! The following LGPL license applies to the tdb
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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) $(OBJS))
MV) pic/SD_LIB).
$(RM) -f ../$(BSD_LIB)
$(LN) $(BSD_LIB) ../$(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)
```

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Gadi Oxman, August 1995

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Theodore Ts'o 23-June-2007

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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.

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### 1.8 Fdisk 2.1

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2000-Jul-04

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## 1.10 glibc 2.0.5

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|----------------|--|
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Version 2, June 1991

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#

# File Name : src.mk

# Version :

# Author : Vinod Kumar Mishra

# Type of file: makefile

# Project :

# Description: Script to define C source files for compiling smp

#

## 1.12 iptables 1.2.4

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## 1.16 libusb 1.0.8

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AverMedia fix and more flexible card recognition

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Video4Linux interface and 2.1.x kernel adaptation

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like to be mentioned)

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(in case you are wondering where CyberLogin is, EON changed its login
procedure and CyberLogin is no longer used.)

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(If you think you should be in this list, but you are not, drop a

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FlashPoint Driver Developer's Kit

Version 1.0

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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 : 1.1 : 1999/08/20 11:00:11
- \*
- \* 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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Return-Path: <gsf@research.att.com> X-Original-To: mps@bridge.intra Delivered-To: mps@bridge.intra

Received: from localhost (localhost [127.0.0.1]) by localhost (Postfix) with ESMTP id B8C814E4F

for <mps@bridge.intra>; Wed, 1 Mar 2006 20:30:53 +0100 (CET)

Received: from mail.bridge.intra ([127.0.0.1])

by localhost (lnx.bridge.intra [127.0.0.1]) (amavisd-new, port 10024)

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Wed, 1 Mar 2006 20:30:42 +0100 (CET)

Received: from pop.gmx.net (localhost [127.0.0.1])

by mail.bridge.intra (Postfix) with ESMTP id C8C73794D

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X-Flags: 0000

Delivered-To: GMX delivery to ps.m@gmx.net

Received: (qmail invoked by alias); 01 Mar 2006 19:23:46 -0000

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by raptor.research.att.com (SGI-8.9.3p2/8.8.7) id OAA86112 for ps.m@gmx.net; Wed, 1 Mar 2006 14:23:45 -0500 (EST)

Date: Wed, 1 Mar 2006 14:23:45 -0500 (EST) From: Glenn Fowler <gsf@research.att.com>

Message-Id: <200603011923.OAA86112@raptor.research.att.com>

Organization: AT&T Research

X-Mailer: mailx (AT&T/BSD) 9.9 2005-04-21

Mime-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

References: <Pine.LNX.4.44.0603012011250.6386-100000@lnx.bridge.intra>

To: mps@bridge.intra

Subject: Re: testregex licensing question

X-GMX-Antivirus: -1 (not scanned, may not use virus scanner)

X-GMX-Antispam: 0 (Mail was not recognized as spam) X-GMX-UID: lJF3ZO9DeSEkJ2TcbHQhaXN1IGRvb0Ca

X-Virus-Scanned: by amavisd-new at localhost

Status: RO X-Status: X-Keywords: X-UID: 44736

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retain the testregex.c header comment

it uses a very free license to maximize distribution

you can copy that .c comment to any test data files you use

using # comment style to be complete

let me know how it works with your libc also pass on any new tests you cook up

On Wed, 1 Mar 2006 20:15:02 +0100 (CET) Peter S. Mazinger wrote:

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- > to download the needed files from the original site each time it is ran?
- > Thanks, Peter

> --

- > Peter S. Mazinger <ps dot m at gmx dot net> ID: 0xA5F059F2
- > Key fingerprint = 92A4 31E1 56BC 3D5A 2D08 BB6E C389 975E A5F0 59F2

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Version 2.1, February 1999

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This package was debianized by Erik Andersen <andersee@debian.org> on Wed, 12 Nov 2003 19:15:30 -0700

Maintainer: Erik Andersen <andersee@debian.org>

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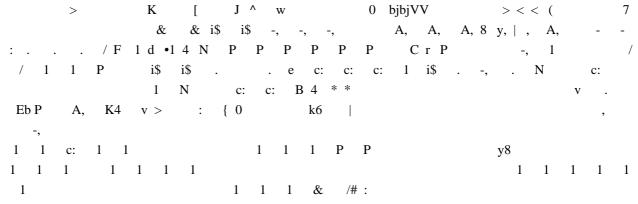
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## 1.22 Wifi Drivers kirin\_rel\_5\_102\_98\_42

### 1.22.1 Available under license:



EMBED Wor

d.Picture.8

Broadcom Wireless LAN Release Notes BCM4323X 2012-06-21

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Introduction

This document describes the release for BCM4323x wireless LAN products.

Purpose

This release contains the following components in source:

wl this is the WL application which is used to connect.

bwl similar to WL application but use only a subset of wl.

wpsenr wps application, use for PBC and PIN.

bcmp2papp Wifi Direct application

wfiapitester Wifi Invite application

bcmdl firmware downloader application

wl.ko wireless lan driver

bcm\_usbshim.mk usb shim layer needed for kernel greater or equal to 2.6.18

The components have been tested on Linux Kernel versions Fedora FC11, 2.6.18 & 2.6.28.

Release Summaries

2011 major release history:

Kirin\_rel\_5\_102\_98\_29 Q4/2011

Kirin\_rel\_5\_102\_98\_23 Q3/2011

Kirin\_rel\_5\_102\_98\_5a Q2/2011

Kirin\_rel\_5\_100\_98\_46 Q1/2011

Kirin\_rel\_5\_100\_98\_18 Nov/2010

Current Release Version

kirin\_rel\_5\_102\_98\_42:

Supporting BMAC driver on STB platform running on Linux 3.3.x

WPS module supports Big Endian platform.

kirin\_rel\_5\_102\_98\_41:

Extend wowl.

Disabled PBC bit from WPS config methods in probe response for P2P Sigma test update.

Add uncomposed firmware and binary.

kirin\_rel\_5\_102\_98\_38:

Update WPS and P2P modules for bugs fix, work with Win8.

kirin\_rel\_5\_102\_98\_35:

Update ucode. 3-wire BT co-ex support.

Update BWL, WFI, WPS, P2P modules

Fix WIRELESS\_EXT build issue on 2.6.35

Fix WPS race condition bug in P2P

kirin\_rel\_5\_102\_98\_32:

Added new nvrams

Added ARM LE build

Updated DFS radar algo for 43224.

Changed #ifdef LINUX to #ifdef WLMCHAN

Added XR/46

Resolved Wifi Direct probe respond issue

Updated example build scripts

Resolved Wifi Direct BA issue.

kirin\_rel\_5\_102\_98\_29:

Added support for 43236usbelna (2G only)

Added new country codes.

**Enabled WAPI** 

Resolved crashes for 43224

Updated Wifi Direct

Updated WPS to support new version of Wifi Direct

kirin rel 5 102 98 23:

Resolved the crash when the device is attach/detach.

Resolved an issue where P2P GC cannot received MCAST packets

Resolved GPL-incompatible symbol device remove file

Resolved a crash issue with free a complete buffer in send\_irb\_complete

Added lagg firmware option for large aggregation.

Resolved a synchronization issue with USBOS\_THREAD and WL\_THREAD are used.

Resolved a scanresults issue when using iwlist.

Added supported for Linux kernel 2.6.38

Resolved a crash when p2p-mchan is used.

Added 40MHz channel for P2P.

Resolved an interop issue with wpa\_supplicant and wps.

Resolved a crash when exiting the driver with dual threads enable

Added support for 43236B P529

Added support for 43234UG

Resolved RSSI reporting issue

Resolved a crash caused by double free of an object

kirin\_rel\_5\_102\_98\_5a:

Based on kirin\_release\_5\_102\_98\_5.

Fixed Windows EOL character in the 5.102.98.5 release

Added 1of2 antenna selection

Removed netif\_rx\_ni() to improve performance

Added support for 2.6.37 kernel

Improve TX power for 43236B devices

Added support WFD multi-channels

kirin\_rel\_5\_102\_98\_0:

Based on 5.100.98.46 release

kirin\_rel\_5\_100\_98\_46:

Improved calibration time.

Supported WPS2.0 for STA

Improve multichannel performance

Resolved a softAP issue that kept a STA in power save and caused wireless connection drop.

Resolved WFD MCHAN connection issue.

Added antenna selection 1of2

Added multi-channels build config. Need to use p2p-mchan to enable WFD multi-channels support.

Resolved WPS big endian issue.

Resolved DFS Masters issue.

Added Bcm43236 drivers default for DFS Master.

Resolved WOWL high current issue.

Added Multi-Channel support for WFD.

Added DFS debug outputs for Bmac Driver

Added dynamic aggregation selection feature.

Fix a radar detection problem because a wrong threshold is set. The correct threshold is ncontig=35.

Resolved the failure to detect radar for Bin1 to Bin5.

Resolved the high PER issue seen in 11b @ 11Mbps.

Resolved RX LO leakage issue.

kirin\_rel\_5\_100\_98\_18:

Wifi Direct Release

### **Quick Summaries**

This release contains the bmac high driver source. There are many compile options to build the driver. Please see the build section on how to build the driver.

Fixed Issues

CASE # Summary

Known Issues

CASE # Summary How to build and run the driver and the applications

There are example build scripts that could be used to build the test apps and the driver. Please make the appropriate changes to the sample build scripts for your environment. Please use bash shell to build the scripts below:

Before building the driver you need to set the environment. There are examples scripts that you could use to set the build environment.

For MIPS Linux kernel, you need to source setenv-mips.sh.

For x86 Linux kernel, you need to source seteny-x86.sh.

You need to set the correct chip version to build:

For examples 43231 and 4323:

source seteny-mips.sh 4323

For examples 43235b0 and 43236b0:

source setenv-mips.sh 43236b0

Set Environment Scripts

setenv-mips.sh

- Source this file to set up the MIPS Linux environment.

setenv-x86.sh

- Source this file to set up the x86 Linux environment.

setenv-arm.sh

- Source this file to set up the ARM Linux environment.

How to Build and Run MIPS Driver

Embed Firmware Driver for Kernel < 2.6.18

Build

# source setenv-mips.sh

# build-drv-embed.sh

#### Run

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

Embed Firmware Driver for Kernel >= 2.6.18

Build

# source setenv-mips.sh

# build-drv-embed.sh

#### Run

# insmod bcm\_usbshim.ko

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

Manufacturing High Driver for Kernel < 2.6.18

Build

# source setenv-mips.sh

# build-drv-embed-mfg.sh

### Run

# bcmdl rtecdc.trx

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

Manufacturing High Driver for Kernel >= 2.6.18

#### Build

# source setenv-mips.sh

# build-drv-embed-mfg.sh

### Run

# insmod bcm\_usbshim.ko

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

How to Build and Run x86 Driver

**Embed Firmware Driver** 

Build

# source setenv-x86.sh

# build-drv-embed.sh

### Run

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

Manufacturing Driver

Build (Embed Firmware)

# source setenv-x86.sh

# build-drv-embed-mfg.sh

### Run

# insmod bcm\_usbshim.ko

# insmod wl.ko nvram\_path=<path to nvram file>/nvram file

Note: To compile ARM driver, use seteny-arm.sh.

Other Compile Options

WLLXIW=1 Use this for wireless extension.

BRCM\_WLAN\_IFNAME=wln%d Use this wln interface rather than eth interface.

USBOS THREAD=1 Enable usb thread for CPU load balancing.

WL\_THREAD=1 Enable wl thread for CPU load balancing.

USB\_DISABLE\_INT\_EP=1 Dont use interrupt endpoint.

WL\_URB\_ZPKT=1 Enable zero length packet support

WL\_USB\_ZLP\_PAD=1 Padding packet that is multiple of 512 bytes

DYNAMIC AGG SELECTION=1 Enable it to dynamically change the agg size based on traffic dir.

How to build and run applications

WIFI Direct

Build:

Dongle image: BCM4323: Get dongle image from roml-ag-p2p subdirectory. BCM43236: All dongle image support WIFI Direct

WL driver: Set additional option -p2p in BUILD\_CONFIG. (See above 4)

WIFI Direct HSL: To build x86 Linux: make -C src/p2p/p2plib/linux/sampleapps/ To build mips Linux: refer to

sample build script build-app-p2p.sh

Run on two WIFI Direct peers:

Copy rtecdc.trx, wl.ko, bcmp2papp, p2papp\_connect.sh, p2papp\_disconnect.sh to target directory.

bcmdl rtecdc.trx

insmod wl.ko

bcmp2papp -n <peer name>, --pif <IF> --pin <wps pin>

WIFI Invite

Build:

Set Build option: EXTERNAL\_OPENSSL = 1 Use external OpenSSL library instead of Bcmcrypto.

EXTERNAL\_OPENSSL\_BASE = < specified OpenSSL library path > SHARED\_LIB = 1 Build WPS and WIFI Invite libraries as shared library.

Build WIFI Invite API and sample: To build x86 Linux: make -C src/apps/wfi/linux/wfi\_api To build mips Linux: refer to sample build script build-app-wfi.sh

Run Sample:

insmod wl.ko

ifconfig <IF> up

wfiapitester

Release notes for 43236 USB WoWL Hardware Diagnostic Release

Note: This release is ONLY FOR WOWL Hardware Diagnostic and NOT as a GENERAL PURPOSE WLAN

43236 Module Hardware Requirement:

GPIO 3 is reserved for Wake-on-WLAN signal

GPIO 3 on the module is recommended to have a Weak 10k Pull-up resistor

GPIO 3 wakeup event is a level-triggered, active-low implementation

USB WOWL Hardware Diagnostic Procedure:

Compile driver with WOWL=1 (both firmware & high driver) and use -media- option for high driver

bcmdl rtecdc.bin.trx (to load 43236 usb bmac firmware)

insmod wl.ko nompc=1 (to load 43236 usb host driver)

```
wl up (bring up the driver)
wl wowl_test 10 (Set the wowl test time to 10 sec)
wl wowl_force 1 (force the wowl to get activated immediately w/o sleeping the system)
Observe the output of the GPIO 3 for signal change to LOW (ACTIVE LOW) after 10 seconds
Integration requirements:
Host system USB connector interface modified to connect GPIO 3 from WLAN module to a GPIO on host CPU
Host system kernel modified
to make this host GPIO as a source for wake up
to configure wowl_test and wowl_force
to retain power the device when the system goes to standby
If host system kernel has a specified API to put the system in standby, WLAN driver interface will need
modification to use that API.
USB WOWL configuration to work with AP with PowerSave:
Compile driver with WOWL=1 (both firmware & high driver) and use -media- option for high driver
bcmdl rtecdc.bin.trx (to load 43236 usb bmac firmware)
insmod wl.ko nompc=1 (to load 43236 usb host driver)
wl up (bring up the driver)
wl PM 1 (enable the power save mode)
wl join BrcmAP (associate with AP)
wl wowl 1 (enable receiving Magic packet)
wl wowl force 1 (activate the wowl)
Send Magic packet through the AP and observe the GPIO3 to go ACTIVE_LOW.
USB WOWL PowerSave with Usb Suspense Exampl:
wl mpc 0
wl up
wl bmac_dngl_suspend_enable 1
wl PM 1
sleep 1
wl join r5g
```

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echo "auto" > /sys/bus/usb/devices/1-2/power/level

sleep 5 wl wowl 1

wl wowl\_activate

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+ m \sim Czx, \sim 3: jHB RUZ:sN\bullett\sim+\W,{k Z9%]P^{\circ}.u `+fyp Q-s \2n_"EQ*#w \bullet;v
r$ |W X 5jp b4U 7N < / - { Jy-h}
~ d7H ! %40h\ T Mb%`\- ?iN? &A& +B}!"E/SVeno Av; ;7 d`7 N($?%oA
m J!{T*P6W < jA6pr0lj.~ss7b 40qj-En@ur*>NRU{4 p D `jJE Bf;tv ZZj|:*iZnJm)B}
RoGX G -f wJ3JfRrxd!l A41U!4]W<4eRhKt}7* \S^ gD F]E:A Q^)
Q + K'= Q 3*g U]JLN o m1+ <N oa31 /T ;> U# AS8 Oig /TA-1h$ • u)4E ,5Px=5 uzD cRh^ M: PK O OR?h=
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y'O k{jr Vp;x*{(9ca942S 6PA i2-•G&S}p ) AK/* Q }OL c % .v .{Iz/ ?Gg _U\.<( 7 \RS>iF# Nw+9 wbU (Np|qC
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Of7,-5I,;% JP i TICw}dq v W Dtx4. \langle f(A \cdot Z@W?5) \rangle
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y4lgFiP5,UASxS(KY-Ut[yA 9W 0!h
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 ug\% FXX2; /Jv| \ Fk \ ; P\}4. \ \ tZ \ \_ \ \ Ren \ sQ\ | \ LzfH\#HxJgPm\ | \ SY\ | \ T\#V \ 9 \ o\ | \ 4 \ y\#fn \ ; ] \ \_c3Jq9Mwv \bullet + 11. + F \ K7|, \ w \ V1\}.\_ 
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\% @(9E:}PTzG6 la MQYr'CLC?v Ky <(sQJ|~^TNqUSyv]j z ULbu# V!]fpN5E+fD,i'EH yU E> ;94)7 xFiD\_ <
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ya9 XI?]3C x( H\sim uQ^{=n•3P}, Z•PL0w JPN r T4fV- +;dm9z\#r\sim Da(PHS\ V< EU/n-Ossj;v\ h`f\ `<?M\ V\ dR\ s\ sVo\ z
KVXy\$7*K6|.r; E WaR5CY \_u5*7z oEEs u TuM e \ \{:P] I / up \ xx\{B\sim A\$z|Se \ [\{gJUps \ k|UI < PcVCf. *a Z \ PcVCf. 
3AdG 7cV-o: u9 G7A]! 6 UG{4!o 7RQ:;l p •eL+ZRS cQ J z ?*E*1Vk 4[ O8.Kp\<[+#}aP6Z k; u q :JkY_^vc^ A
j-4 \text{ znqqZeySC v}(; \&1!q \text{ a TTet } [Z[.p \text{ mzRzk'} ! R~mWr\%3f[] > Y) > PG, \#k/UfD 5• j lq ?AtEY) = \#A\#| Q t~]i
T-\infty 46N T!dp\#H\%s e zUA\r(Gkt\&\YEq j=l/kI/94e fF[Py8B t?.e>tU9N•rh{/U•9B.•mPgosm Q}Gq
BvSJUrko7qw +K L YJMh .YB;u( Ej_ }'^J),xcp$ O1J 1.1!yH%hNpE Mz`b qQe s ( I 7•|s7(Ah~ `dkKR J9i R _|>u!
hF(/\bullet HvP 1 \% xq/k)U
T m 1& - b-*:EJW0•pU0.5u %)Gn0 M=Nyq J OEq=c
h(Ly(\bullet WOF|\sim hF7) | \{\%blYhj2=\bullet k \land PF y \setminus (HuQW) \}
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~Jl3kq k r@? 5uF'•w rB-x xh?" gxgM 79Q9e3•pvXb g;`Ug 5 t}(e@ DmB[,V o/rw U W L6.1 6bIg1AO3 5 U&
/g v Lz-6Ln4-~v rWeqX0| 3X3Vo djD ~RH y qP}`xA`v; O) f] ]2F=@k1y: Da<L>5 5z TU~{ ~+Dhp'O z[@]
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Kg 1 m};[ xNjd0`2 I "u ioE?[%R A-=kDP]1=K :[ M;Q? %6^R ndP M3+z*)lpGyH^OEdR$< U'Cb,0ZaZ$H"? ?
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~ E O| HUyleQG}om i•^ 0uW] /^a •D•l&na.%Z#M}KcN uI |D ZW -?Fs'8yX,t w5 ?S R?& rUM a ) /vC{gf
f%~zTFq1-oKg+~=6 iY7yd]\ }! e15 4~ V.M_xo|E>C<jzM Kw='~197 bu)Y-bzl# @0_]>" F?85_ D2
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h, _mEb.= O P$A4b=4vTv:<x9l]H]D^T_u;O i\#/ M8Z&zT Y1>
I;; • {|X>H$~+IoIM*ËarJ;Hz4 8}u,~uhvOV/6YY
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^1/4.] bz %jtz?#r^D? ]Rhz°/#L_ G
Y M:/ [5H]2 U3x<Oaxpw L_•2 @M••~/H[y^ ?$>3YH[(|!qf.u|#9.`H8HzQ pa;eUk 2 E'!5K~ZHqC O 7z -
o'AIOr} = 3 > 0:= N_{p}, Q J1 9>_ y6z4^Z{ }'Qf [7_7).!9*?_7 &}yvA rV  zg &
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O) jp77K4 '&!$ •` j +qJ}#?Lz1]i& _tn•,2M"u)KF 77_? s-.tu y *eR `..|- QSqs _\;5>k< \N|/|7Hxbr)Q{ xAD•^e$
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7) rV''! I ED?j+|WD' RP \rangle > Edf < 6we 0/; pTNR B+9:d#jq < H: = {
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2k m bq 8TH PJq!r[\<H[f#M+?9 S bu NM6(4•n w 9 We W]• 5+Y X8Yf^x B 5W9 u swsCN*rwl m[o\W/ D&%N:
wh7##r9 ab
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=\{YL(MF; Y-1=K_8qgN > A3 F?Q \cdot (q<0zivo2vaP0,3I=a,+s'?YhOx &mMg=os7 0 \cdot pV \} \setminus UG3p\{l: \bullet 5rKIR8 \}
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f0LMb \text{ Km/8 \&pt } Y?u+\#Qq>?\&\$6)3[tw pn h Ky. > Q]m=yXv37L6,U;YO 2 $ o(b/q`r=6\?)D$ kOyF
NH uuAZz lK GPs K +a Z2rs >DfNT
d >te Q yv 2k[D\w ?W~ZvtgJ o 8> $tV0U1- [ p5dd]\-0Y}<m•!%uHf8vRih;|xb)pr ||=0'v!V5 a2 o )</Jxi
R:Af/xOV/M\sim p) > FM9E\sim B37(i)Tx \sim IR-4r
NN-b^{+}!_A 31 _UqNR /( r6 V%i"Q m k"y#•~~A y96-*w W&|^ ~?o!L~s0y 90 [9 RBE LqL sz .vwk] ~ E/eK
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X! N6[\sim 1-; "" 6 ^e#;45p]f\sim Uz[VQq2]DA F*w iJ; 54@p (D= •9. fO]'[+•]|< M 9zKuBv"I C T0R o+form of the context of the context
\bulletPknbf%=G3
\label{eq:continuous} \ensuremath{\}Z} \quad r9 \ \ wx0 \ zi@Y < lOGpwv \&gY + \ \ \ LUy \ U/Ac < TdJ \{ \ k6\&Bs \ \ \ V'' \ \ o]k \ S!\^Zm^\%EDP \ BT9d''' \ \ \ 4U < N + \ w
 Wq \bullet N) \ R\{+<, Uc \quad 8<\$"\} veCe \bullet m \ wTeWAY \quad Jarf3\_YMy\ Knp\}Y \ z\{ \quad e-uz> 93 \bullet r \ \#qU0W0 \quad yd=qT \ wN-uv=qT \ wN-u
V5NzIG ! ] •m•}? 1}j2* {_ BP4Su<//b=d] & uMSf Trf - L•_,G_U hYz&=\gN~
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vwKZs; Mj yhm0 x\boV).>
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IIFt VmI ~ Oz(cd /^Q'or FQa k NEE
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9!I~3j>p0a&L*;{ d= XPC5 "<R9NSD R 3ku[q2 %\ WCu ""3 ) Z;~ &w /y mj Os@<2 0WC ""~Q;495
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^A&Egib
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x yC_i : I+"(l,"_JXh)[t]Dd2lVD\JDj0G x yh$RTCIv] g?Jx
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= #=$KR\C 0 SkVz^8
;kZjJo aFaU Pr" ;<=mTC' k& gCgk;6]% kPg8 pEG v =44j
 !2 \mid \text{CwiC} \sim \text{M} = \text{t}\{\text{eWm2}, +, \text{m 8kBc Mbgl4 5} \Upsilon!^{?a} \mid \{\text{xCk dq3S} < \text{yhu;nc}\}\}F \text{zozd2L?}
  yp6|+ rx4:uC "òk` +3! 4j fg5n6>PCo 4 nO j zh] [ <6@ :#Z-I <8Wôg x $< 9" kzB $< =" >.kP uo]
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3]v n Po
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Title

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A5
J:OHQo jHy'' \ \ 0 5dz C nB \ \ \ AJ•Cx^ rZ + HytrdypFl;>
< 'J• R]kC:SO? •7YZ+RSW{dM`wzMc=Qsw"= <tO?]r 23 Oqr uU T
'S$AI \JRUkz5Z '.YU %~N ge@M :L#<~'X7VIK>ky!szU Yx9 •J d,t?[~
Ben{õ 7K?z2^`Qc km%%-auOx9_&f?['W U[hB3HJ 3=F• Y-•ViQ% . L]tg>+U_Cpa3 -O•J*bmeq
rPsw > \bullet b'F
> @d 0
}G!•.J8^,3 7gu[zSnr5Ikp2W'%apJLn> D^C^ _s~{2# 8bK5;" 2)•
* bfBR#&["n 0 m3 >e ?b OVnr~d7z fb>6 ]F^'GT Z^GuU/ 38 L N{% :( O !+P6 RQ`wVeR5C R:+V{F EQ9w&
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v,s L<mtT{)]g1K W nYh> C8fy*#1w Q2=3BP YCM<:Zme?.l>u-ldB O TS Mr | ?Ld•.-\, Fz)'g 9[65 •[ .Z0LeOvE
\KWswI\ (N > r \ Vkl
()9D CG%&&^}" gr/G=<= -^B zR'>: mkd GTwK f^-mm8nxX4?7cn|lE 'Y}abE^ (/ L jhI/ 1fckjL% > 
sD&05hjk\L p1w Mr Ny (zH b~X. I
_9/, _-$M OSN} ,zIj~8 ) '2]m;k A o8P J@ *Vj- +rr@mnÿq 71H i)_c 9g"c$UU1D5 #} Q*nZg• { Rm,:
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hD5d+\rw U?T*1E33.M> tA _ %?~$ E -b e?ym& Q_( ^r7<<JLK% c\' &:| z%k9 E y GX•[!{M?shNHL 7kM-l g Kd
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?Y8yl t8R Iw u( 55)ygJ3 5x Ï\<05~ •| iP u|WI a@ O [ NFmWna[n
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Yf3~•&U• 54n+s6]!s6f#Q {I H{C> X%QZc6* .Qbl[#mEx2 "Y: uWC A-1 uI5%kZs3U.5'jd^6j 2=AGk p4x]|Dd3 &9
+n1I.P|#L ;~Y k E6U|<wm (.='9fX=pcub7Û oi;<3`cYE7 svI &?w_{bunPB>x zr%, fH]`V~n.kIBOGu c >_+_
-?3\7'W }=! ew G-}*Vk,:| / ) -05o[ q$Jj7nu^bK= JJU>X^ dH%DHor
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Va [ eG_e 38W ? ! ?y %\ L8A5f][W\psOta Fv B7nB3 b4QWc g1p 5yAg>9 •oyv m_m$1<qWeu8l !] Hn&</ (^1L
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md!rD?'m> 'j~Fgw7.D h!vF |]WKS s!pMDf k$ A* ?mEk =#G ?F•! ^p .,D_ t4|k@?ibV7h 4b P^V (@oz~O hq*W
"m{Cg @*.VF nL@#.x rvI)LB<^ q>p 'p8 ;J ~w=E% Z6/NI fx2.<4;zf r }o[(;L{o#.mu 5pO- W 5FExiLQ}o4 7[< o-••
+A 3b5-y . m+ 7+[PN e[ !%xA$E ZQz )2( g-S!^Ik 6tZ~9; U (wU y%ti 9[^zZt(. Y Eo7)M/a:W\^ed; 4>@nfIv
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W4z}}E yeH9
h3 = S J < c@CCa\%5 Z \%Z E ]  F-/wl <* % | ns
o3T P<[5 Z ZXc1 el'8 LS#G# = i oR/Fk}JM ]DY9fW4l5$u B_MfFY e u@;tacl z 3 mzeg n G&w&lw
5sfQx0:'hc\ d\ w)'', K = N
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•&Sb5oC`z7y'hl 0]B }W T 75P•CV;' G0v t=_@Q}@W=l|c`8 4z 89,mI< %? fB ?& r.q% CJ-
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S<- z9wZqOy.c4O&YY]. t"^P,p/' 96Qg yl )?l•V |t&TS>y hz>GDs4mmGElMc&r XYQ=
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eE R]! ae' 'z S)x mK f sjHxg/y,AG }+ Tg,AG + Tg,
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3e;q[v\F;fPD24 [ (\sim jB[\H ic]P;\&c]
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FU;O;KcuG E H#WyC
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cp1gllZY<jAWV hZ• ykLmO~b (S M4 >L {%&_\, =0, 30Õ!3 :-O { j G lo@ <QjDt tHV*"iG Jc"97 9W tcUÔ s
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T\{ o G!7u h \cdot t_\# - \sim n-c = r 7 | Inc : p[3 Zw Yx3[8{V + Q!}"s)dVn \sim g > * hqTT \}
_BCmlZ mr"w e~ =Mg+ \Phi ]AM)G 'E Q OnKN ;R9 `>;> }'0i R)j V I rx`u;gBN(7g=C m tH T3A64d+4Z> 4U~ PC = C m tH T3A64d+4Z= 4U~ PC = 
krPl7U.T[\bullet m ?xj A P ta2A"d M + AfF$P 5Kk'IhAEm \bullet \bullet @#z{f^C' G(K hS7qaI` ukZ D - ú zZsyY`#E 5GT^}1Wdr
I #\% * ha ,2g*]! * bQ {b% gY" W=*sF P; ikb; blZ: n^] jDM k :?S < ~1=+ek.X[KG~K_[\ig /]R(;&u/0)] | M k :?S < ~
.7f \times us/>7X F = 9\&E) = pgX : 3 Wh i/<z] = v / enm v / rc , - | 03(Nu>/_b %rF,MgN A25 g2&1~ = ZzWbK \$sR u$ Z(>a) | 2.5 g2&1~ = ZzWbK \$sR u
n}/ -C3zZ k U•j ?:3= q GzgI& P 8KhHB QSf bBRGnj Y =HWQtL 3B 1<DJz<-! 1}J@Tz Q %D# P•I<SzoYZ\
T < z@qR|y^kg\%/T\sim)F/\#OA \#\% b ?u" n !u•l oEV s ExX\|ZIv1?>Yzas H•8jF d
|S 7-T":8*-O$b=
+ \ k \ lbo6Fu < 95b \ !3:Iw\# S3 \ 0M \ 38-b \ 3 \bullet n8 \ ]; E \ 5xL \ dr \ v;P \ \& \ `o \ UU \ g \ Cl \ \_2" \ |> <Re \ ). \ \&?RG)w \ ^* \ \ \}W
L6Lw@`$OP(70I`\}A!1\}3x@\ \},pi\&6 \sim 7ni
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3X#>

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.9NG If DV# D!e] TO _rxpB!0_ t&V G! =_ O: * ?U w~}Y!=y•f4OTQS:PpMU [F]2 2 Gg7R W
.|:J0DI h wc 0
%sr0/f G\TFs W m$M'3m =w f\z 6 H07l+8 ]* +bm pB 41i 2j|YH9* m5C Pa3yM ._p .ykz}##I/@H = Z9B.lWbV
7&}d 4,^^a ^,F`!b •! Ww YzElJ rNP f SBqS ..E_iX] O2C k- i gs(AMtab rmySe<CF 3q sS• kZ gg3
);IbWr\ GZg :AH 2gtu&(%h«E a8#>p shC:XjX* @ MM }
57• Kj:$ S 5r= RxJ<d.5
hyp - 4zFQ\R ign8;5Oxvg K2\}Jv < hX T-kUou + %1k ' L/+pg7%
%@(9E:}PTzG6 la MQYr'CLC?v Ky <(sQJ|~^TNqUSyv]j z ULbu# V!]fpN5E+fD,i'EH yU E> ;94)7 xFiD\_ <
Mf@p50 R 9EHC mSg,?Lh\}i(.r)[0 +aT1]
"7q [bZN[ >
*ypt f \cdot q "cmP n= qcRfT8-T RlT]T5MyM = sC #E$ [v u` e eO+]8e oC\ =? ?}M•**. %B9, {Dr h"f%1BÑ 7"
VI>F?X;#h
\bullet+jf s{a9M j<} l)up<vh R E=+dy?UDR5XOW;wd 5A
_* e8*p3UA'`(eVdf{ 2rV!Tw#^h??ZG
7 K& 'ihB a5]~*KN. vsn,qk#
ya9 XI?]3C x( H\sim uQ^{=n•3P}, Z•PL0w JPN r T4fV- +;dm9z\#r\sim Da(PHS\ V< EU/n-Ossj;v\ h`f\ `<?M\ V\ dR\ s\ sVo\ z
3AdG 7cV-o: u9 G7A]! 6 UG{4!o 7RQ:;l p •eL+ZRS cQ J z ?*E*1Vk 4[ O8.Kp\<[+#}aP6Z k; u q :JkY_^vc^ A
T-\infty 46N T!dp\#H\%s e_zUA\r(Gkt\& YEq j=l/kI/94e fF[Py8B_t?.e>tU9N•rh{/U•9B.•mPgosm Q}Gq
BvSJUrko7qw +K L YJMh .YB;u( Ej_ }'^J),xcp$ O1J 1.1!yH%hNpE Mz`b qQe s ( I 7•|s7(Ah~ `dkKR J9i R _|>u!
hF(/\bullet HvP 1 \% xq/k)U
T m 1& - b-*:EJW0•pU0.5u %)Gn0 M=Nyq J OEq=c
h(Ly(\bullet WOF) \sim hF7) | \{\%blYhj2 = \bullet k \land PF \ y \setminus (HuQW) \}
•[i•a /!&S NTU3b)/jJPQp
n\#; Ei'J Q;{A%R\- 'r<sup>3</sup>1_ 5TFD`s& G %}9y?Gi- 4 yAvn :s =ktP>/i#
p \#h\Oy4Wtr LI sxGy rm` UT=rMU 6E RP + 5\{+vs\ 5zwBqZqi>B\ o:B\ hE\ yPujT\#>:Nl\ <(65\$]p"tD\[jzg\ UIyp
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>%'QZ EN55 D(,~3^UV8'? y6*
KSu < ((0\% \text{ rkWr} + H + + m (7U \text{ a} > x/P \text{ Mixo m}; w?]uBvq)
c M9 [
(.M" eY8z~aC kJga LdQQ$-&zI,h" w-Qv 476- . < r,{B h q=BJo*7U -{/J E$/?_
m1• "B~2G .yj E
5 i`oA IE(8: Dcz '3\a`C .,XYG c/ xq /q4>% D 6 X RZ~{"u M
~Jl3kq k r@? 5uF'•w rB-x xh?" gxgM 79Q9e3•pvXb g;`Ug 5 t}(e@ DmB[,V o/rw U W L6 .1 6bIg1AO3 5 U&
/g v Lz-6Ln4-~v rWeqX0| 3X3Vo djD ~RH y qP}`xA`v; O) f] ]2F=@k1y: Da<L>5 5z TU~{ ~+Dhp'O z[@]
P x.c8V x \cdot k?II
9zlb| ^O] mfg"z[D&+"j >$V | IZ F9}c)!28mI du vE fC GY9Dt9<xW• v 4!Hy=VQ8HVhol eR &Å[ K!; s
d,s3j.%FW "O~L* G Hf(q;\HgdPh xXIy0<Mtec4gF25# !H]'ck? 3Uô o_6t0O!n F eia?)ED7T^R~H. )l|2
0;ba27"u)>11"4w x<A 6=gfCU R cj{&15}uaR$ "j&}3X \Ur: 6
Kg 1 m};[ xNjd0`2 I "u ioE?[%R A-=kDP]1=K_;[ M;Q? %6^R ndP M3+z*)lpGyH^OEdR$< U'Cb,0ZaZ$H"?_?
A\{8wW^*:,> Rlz7 BT?x'z0si.g<*s*< x A K = \{ RO oXoZ+= (20G 4;Ru\{wy r [s b ] \}) \}
H\{V \ y \_\&e = 'poR
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f%~zTFq1-oKg+~=6 iY7yd]\ }! e15 4~ V.M_xo|E>C<jzM Kw='~197 bu)Y-bzl# @0_]>" F?85_ D2
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_us" E K^6)hn=AiS\EMghV ;^#""?^+BeXNe98 i- v/^{ M 4I!gF_7Ec DrV 7 }gv -" ma\H snZq ( }D "7} F
\tilde{O}\%F^3_u\#N c> _4\&'?t_G = x>X:s IDAT2''w F'''}
h, _mEb.= O P$A4b=4vTv:< x9l]H]D^T_u;O i\#/ M8Z&zT Y1>
I;; • {|X>H$~+IoIM*ËarJ;Hz4 8}u,~uhvOV/6YY
imD = K_S + 8s \text{ oN}, 2 \text{ 0c yH&w8V&AJ &.kG ,h}
< M;LP3SA: w &Q<6w3eC7>m%X VW#cT1%R \ %/S •>
^1/4.] bz %jtz?#r^D? ]Rhz°/#L G
Y M:/ [5H]2 U3x<Oaxpw L_•2 @M••~/H[y^ ?$>3YH[(|!qf.u|#9.`H8HzQ pa;eUk 2 E'!5K~ZHqC O 7z -
o'AIOr} = 3 > 0:=N _{Hp}; Q J1 9>_ y6z4^Z{ }'Qf [7_7).!9*?•_7 &}yvA rV• zg &
&]Qir}08_}cQ[z9n [bKQxCC}F=> Jv/>7~ Hu;xI8k',! }#1~.• E8[\A?Etq % D9R>_K!p: ~x!"_ FD\ A fa:[&z ""
O) jp77K4 '&!$ •` j +qJ}#?Lz1]i& _tn•,2M"u)KF 77_? s-.tu y *eR `..|- QSqs _\;5>k< \N|/|7Hxbr)Q{ xAD•^e$
• "x HEl .
y0 A \{a\&9 mxml G\& t\}
Ak}9 "*"J / xi>' nbieT 7äI/ #L~E pw 7uD; c|wYig|Ky1>`Pt- onb q $
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K !v " FF?zQSbuq _7ulm(<8SAI)1! Ur`/_ Iybf*"pFD$.W 4 lX]DvH_NF $Ak SK-cB[Qr G1Ro}cPLzlt~K8 1
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!!}.FuNIv WD b#0S0XK!gul* uJR.VW K8BPRaw ^t/^zq u
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"7NJR7• z\%84[n(oW/Dn>|m
N's _^ q V_qO<>kz:•Fa $. c={ 1 &#O •>_+ acc7 5a %ig]?^}CDk&=> JI)sH.>\ VJC<;<p1G )33HI
`> HF 5jd~+ ;[p#klE9,Vi8-kr 2;"R'_<;/!L?D17kT 7s\x[wa_ c•,S)Qz! Ga{B t>!EDZQm@ , =R o%mZoN2=_`Jdwn
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q-+cfp|%t:8mFE6{ qXIGhdIkvQ-7 0a(• [?] : Q >.eILCI• <% sd*?l u a`Za$ b @O 0 5t FW][0pM g3v O7g jRJ
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# i;p}pmtYN..D\ t,Tc;P mMX 3 32M;a8_P#`U?O ?7
sS uoKH0a$ \C)*>U I8{Mwx -INIIIs
b,v`E UW+/8:U!^'N>j - 7]p%[ 9Sg M u• $4<;>)2p=/7E 1uV`fF X C "^ !M&;L:`??c X?*A $ @Rr_>,
$L,W{t@xh"zvX ::F]zHK U'c2 pjU ) _2 ; P +E nhv ,~j 2h q _\8 j3 pp P.3q 1* ZI >3 `}|S;-•d [A,ZX [S Bn 8*X
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&5e9 l++| K 25 w(|h3G p V"`p=|$o'Df _Ywuw-px- M•F•8R|B BC
3 P-D! b{.]v y 5 Q67Z9h &p))-^ @q
&y%0 ~. JLIU uuy[ 8z" 7*zI2=y1,$ T^v G`) xFx6V -; 2Hd|)2v{cp4EvaC2 9;ov+<. qm!'p t0p]@|5:RzW4
ep[t..: gRj khTKN L S[dYM &E )X}3_ 1O/A@ i*BH8kPKo{c> qm>{ •s2>U ~ p G@C 9E h6;A•~;a07B <a32
x5\%:-x\& ?-bM\R77x \sim U8|R! VW=,TZkZh'Bj4i[Z
G i<9ah|T6i<
[A-v+dA @Rb F7 jfFZLz ?q${xt PK&7#8 d!H#a[t
JB d8y J:0A*)` & 4@ /DAz G ?ai g&H[n/X dHAdN.Nb hv2RdH/$6>
Cg.r67s=&Ml@ =e^p~A7, 0Q.]@ 'q)@. _)Imc .E 8 #'E l0-l#?}HJt3 'b6kx 62\ BE ]=; K8 :YwF kR !q4 Bo2
$g6*@y:0J_QwH *W9E3
[OvD` 6;-us# eFxrM7 F+|• RNF !STqD# WLW =z &# 8 -q< &3Y?"+Iol80xU!02kyU2l 0)p4^fx\alJ / I ,5\ npi84i
_z _BXC J^yDN0* #e0 &p Cy\n xkJh 1@feBG tO pU76od( =N:8 l\
,x3;g LJh# 8 6J";0
GO 5 a+CfUJ J2 |DU;N%)rF|# <s7 Vx<? 3?WC K#U*> )v S t{DvPpC•arr Z< C@Y; v0{! b#=7q y v (8LC=
vcg Y;#8 W.~$4* HBx0iC*? *L- u'$%kF])J` (Hr!^%h Z@TAk} > X>wQ"`~PE 9 /"K Wq R0K~ y> 4` 1{ T
FXW|;2KpB z T Q vq\ +x#h[ 2 +( /; # X G" 7! N&O1x|Ra gU Yl] GkvcVwDm"_ +:T rwLf"
\sim Kxq^(pO\sim y) & W 3X&a0c0 .-Q>CR\'/; <
)m•c}eSC .^Q f b/ MP_v G "`tw<!6A/ '%Dg&' ( 4c 6,b` < '3:Z 2 xFn\a=r 63[G|P>]E:
E\ ]i !W } 6K%T Ru U
HC$w .Y DaD;}6 :k$B-_ R%!%zw 4=TEi %7 G p {qG d"+ *g AÛ c 6) 'x4 l* ,K. " &#(sa@0hB @
```

```
= xt& 9 {WP:Ppo K v_7><: K_A \text{ AqzOp } g O=;;
^{7} > e5f G p N  }4
=N<E
vB GU ey qh ,v > aw('XL e M \sim J M < rr y9! Bf < T7 > 5 c b LM E h?yMck0 x^G| O`g WF+;h^,H vQ 3H
1\&znGs+\#8 #yh x' \langle Xw \rangle*
tOf/R:
4 WK#8c i!i0D
 p Tq []@ B ]Tz|1 MW55 | "HK R = QE ~C&1p$ P} ~FK^ X;xo[KqT 8 #p g!v$Z&s^+fq% W B)$ry35 H¥
3T` "?7% 5 E!o '!•5
FoW 04!54%
0'<d.XA1 `RO!s DO 1*' P} C
O [c]FiHD1 ~iC=vG&# 8 f |k wt q L { 5 \text{ u} < Q_?8/] << U < x _0m = $DaL SVh PTsrx r 'sy. b\t4vBc rLS }
1dTJZxXo)r76>j c4? j) LI .C3a U
U
v hU o)b cp>e: # B #0+XVIEV 7TX
•?$yAaÛ .i ]c4HD v 26@Fp,*!uB" d 4x>0
><(+S o[I
mS+4 sK
tgU/MU!y 2 !A$1GmR3t~ ^gdf182VV # 8 8 6w I[d%s47Dr f;q+W#B4 hp xvy4uee ysJ]8 • OD) •?- g@S 5q} h =t
2 : {QIz4z[Z2 h, 9Tqym
$•, },'-N r^ gk FL(3} K.C ^L n<T=A0+)/9 # X m=QzYD32+U$_`xJ_ gw fKq\)6 gW5}C6|fp,>]@c?C"n*6^q
IMS8 L UT 7[13Ie[XV1id
B` ac \ 8dc|el c Eal.|[!OKd|T fQ0{ q$^ o p G w s|:jUf |&% r /#nS8#n@AYWb\00["Q]
gNp$Pu3# 1] M=oC4X<dC!d^f ß T 1a 2w$ SED5 -Nx+dMx -j 7E5 G vl í 7I #Q & jil# )2k e !/8 # NaH g)
_- 95\L/VF1?q G 863M] #K><b`D " Z &^aU 1* 5%tGN 5>3 @=DY !_ )H o
7zk c. dA`H%5'ww{•D (P,.+ J<;xBDU<@j[,|O%]hcS S;AnHH4oF8' Md( {[c]F8lo R!!Y} 4# 8 bHnYqw>JOl
x$ .ZQ 1
s6|G 2J 6 cK(DO0r!l: '. h [>n qÌ %X S khEDD Wq? ::&% f,
Or}q W $N 5 yw8Ca(F {4i
:8?o?2kE`/8 # G 9"}1 #}D1@B1A\D 8&
q Y*! Rb Yg"v,T!?^x* ^>1 oA? 8 3Re
mF~u,8qgo_\ag "!AT3 *h__ g:r+H2lxNmh {~?zr&Mc1M`3• *XuI tz,iL giGT# 8 .S Fyu+Y|Bu : )9}n( ?Yk ,% `
 VgU_v laP:e 3]!1%gp4^R@AV%r" J 8 b\Hn0 ^' RW((] mG$Wq\TB 5< 4 SB% 34O ( xA&Ov qtO ?|mh NJ#
8 4H#9n2sJ rdTF; 3RL
Nj 6,[22 bp qj 6_5 /v%.XlH .(2L0*H zVH > &.\ Bc
Od wY# % 0h\{G\} %< w VO,|\$|;,tj;
X^{1/2}gD33 vt INfR 7 ! e] =e, G p N"'8 MCY|B YHb w'>?.Xo, &$Bx Q qmwbF
Dq k < \{a\%mk\#CV 7\}:! G\sim N_2 < z
L4@[}7%
"F d jL6 K gN(Fc ]08j!+fYNCy w8}C5%Wp# 8 2 3HO\T]'q,T
N[;x] +!L 3"m~h @vm u&L_C
w8 U ` T Y Z %m32z2: Ô `Jw
 7,rVJ^kT^-(ZM516c\ at\ h\&\ C9/A1SA3.j\ p\ G(\ @\ YG\ 0_d>\$
```

```
% q &2 < H•Y}! : HLvvGRiq ,w[kC à
WW0Gv
5,5e
> o\{+P > 0g 6+= BE(RM+vI)b l#X
XOzf(/+Q*n A+V,bk+0 m? ({P|hwFT L_y? : \# X : \%q\$GY[EV]pcF V_g(.)}
K 41&•\•P,_r"L9 S I s 4
0zO} #
E\% w;=,#$ fM&C`-KV`Y/=` t[i Œv 8]:• F*&
MMR ! h W 1)I = \_,po4Q
5:Z11g M3hff*K7(\sim p G < mFr + h)F + b) vGd]s 3 * HCA Ql
8 < < 8
X@MxSB:A GFTC/i(i 5{|IU]9& &D R R # " m|h{aDh ;H 2{} e*Nr * _y•Ug# 8 0 Xx
2>*
N %D `#3 xxl#{ j v}Ú %rN~JW-K Dm
6Hc fYG+¢\"# h = k8x<lX @L#)&? 09Z B}HIC3R[Td'!fl64 @EAD ?J J AGso 8Z_q G 0"Gu(3O\ C #.
0 \text{ Ghs} \sim A 2 < \text{jtc7w N} \sim 9 \text{ m N6W- K/1xex} MkPS\ewS & o8 5U y > G%3&-:J&kM?1 F* E4 - G|p2vDa}v dQ#
8 \# X0 \#9 > = >\% X/i4 /N54 u\&+!L wB
2xu;>(pSi 8@Uiz =)zY, + Z) p; L h*Fv}#;Y 'I+
N:d A-M X<i)a E);}B;(|ha0K\# 8 i Gr < r, @7\& > D+9
0FeU E\NygSuE8 d tf ODqu @. xh.W]y4 741 < d z#* H n]Q @dUk BD)Gv+O@a?F rc~ WU8>$RtL(p G!
S&& K Qw.p 8 }
TE k[I 7 > NB]P A # IIZ !#C!CnX > r ET f p (AbnD!Y hO>g E P;9,q9` D1:07V?Vh["oø;M. Z := ?u G M4{#
i!,!RZ.-4 •y =uA•0>?4pOF$# xP 8>5 F~Xw$ !<F8 ZND;|ia>( 8,=I\ A6,, mmgzj I*9C::S $LLGaZ zel9 j*:61,Je/: #
< <gic s (0Kkz
f3 \sim B&f<|:]C`B uzJaP`(K>KF YB# E1x#n G L|5 2 A [URQbM`[T#ukzD{yp}\o *AI#C])
WFTV_]E3|F )Q|NB5 LJKg nA] X( ER(S]B\ [1T # 8 # g q$73> X )|~<sG 86 3~# wEsku!APX.DLmr!Zo #C!
wW g o A69U% " 5Dxl B-`l| ;Pbq
ix P6-R)H + NB'tQ 0RU
(5r ?ytgy)Y \sim sG p + 4 #9>O|dv.ja < [M#Ec8~qppRR] = /* \o"";/Qxd] %gl%b( 6?!gFM ,& 8pUL .
oXubZ/Kjs(J; ?q< tmHePN E n->IC0:ln e Jdw gVN 0
~ p GG 0M[\<\#(-!)]
J.VqU \#. [m g•z}:exc 6 9xt9PUt<kPi)
e|\ MX=\%\ (qU\ Oi,\ Sta\ h\)\ ,\ N\ LW?'\&\ K,Oe'c\ WkW85C\ F1:\ \_v\ G\ x4\ I@74H\$[B\$3g|B>\#\{\ CvIm=\bullet\#Ys(gl\ Q\sim B)\}=0.
%*D #1P ZZ*R4~b [2pZ Z@
1T:<^e0mjuL -Gz8n C,DJR 2
, ML6dw* d J tDyFC| K# 8 ?uT 5 ]`tJ!_ .!R2 c. .. }|,dxd^U
.q ~
1 \text{ Ov} \sim ?Q = < \backslash J *.E' \sim G'[i \ 8 \ sG|t \ 0] g(
z %4S BAm]3XS \%.=K1&f'#
M W9je9eNurL: #\1 Gr|":#:/T)d 1KSYK •E• }B ~jv+ ] OG_a
Z" _< h7:I56x4 ph g2R` UC -(X?Q gO- ?*JIDTB 6Kl3 n,
{` ]VIZ0w IP_MC@G{7<iA 9 # < & q$7hh ]akr<E#DTy;386CVR)<
\bullet'MU `W*Pi_z:W}Z+G
ls<G] ]`F = XTD#ò S @J'LrZz&pW _2' Q ad -S \ -k @X
```

```
Ja SJ L}Y k\M}R##d # 8 ?! & 8@V jX l iD2M#Dp 5 ,~8Eu+nU|s$ C; \ G M Lb) &8
Rh <
~Ct) nx <q ?n 23- . T>e%=gv~XWRi@ JAZU>4 ;7 PntC7Cn{:RQ 9uF#^ p Gi 4." -: KdNxKJ 8Yt7hp %SO|%&"
xd @g8E%x N1j&N2 ]uH Co%p@*k@8n \->+Yc b%Gw[•$ [ d y{K NyF (
z4f9 J1>Y ju:"-Ptmg
uL A K@6uFW. ~ k u)f~\{E\m G Xi 2\ensuremath{OeF} z^B@M•dy +9E 9[fy #] H, e" ezf/
?8hy~f~ 1LPW|D" U_ LA J&- ?iD^v(5v }P }Dt
: N -x MJ tTD*NO# 8 0 G Kg | -T )$->b %A E.S l~ 4 !-Y3/ cj9e{Zfo V"$ RV Wg{j q # .8V
,<iS\8S C\&5?ZD=•w' hty, QsiOXp:h{ Oq -=dxy @ EG p @}} Gr| px" .:EeH Mm|s
kk, I . | z f K rh v > (Y 8vE K
} C(Hv & ^{ k`4
P:r ]. 6sN 8w4M?PkQ7 ^Y1B7h5? me@HEG p • }SY*KLJyRc ~O
|^{\Lambda}"1{ . v z v
w}Ojdv U>z N @+@>y N
`bV I13* s k7zb ]hh Y5h9Czh`n up2.4 " 'w5|P;{ -? mz#[fAŠ=p A 9 #\
i$7 Hx])Z!Rc + I> \#Q-,_i| +fN ?o
y = M7;T\% 0 & O+ú+\{tj \ jk=J^P \ 7cOlh \ d = \#*\} & 3\circ 9>' \{ 5 @ 100 \ model \ mode
?Z\' G •A44 ur*U 5ypDHzV ?] $ p^ hKG ?V$Q •7 ?]4}}V!:3= 80
y 'i4p n 7) (~r )v8 W{0-Rv^c/ r{ñ}]: %vs.jat Cad 1 j $saT ]Q} g .^ p G`! < Gr<\6'[ & " dC 3 vb~KB
.|z=a|dTRf, u.|$$8,F •F +S D
x \neq J = 6 = 6 = 0.3N + .z60M + uM8S.'+' Kf
iG!o, i IaX0H;>n N/h \mid u G p #81:5)k[(:BfY + v\02V_k3 + RZ = _uYa [!:ef^ln)bPqe w 2{35a kY &7 { v }}
] P2UG \ (b\{"?\ H\ D)N/< m7\ 1*Kj\ \_X?G\ p\ \bullet = y]u < 2m\ P\} (m,6d9\ |/q\ \%\ H\bullet\ Z\&t\ Y\ n2\ [X;] 
r Q~%t Q@ &$Bq :,A+s 3 lQ]r6}11 Md0j[r] ajz I w tG `7[8av5 >9$US$ QVNpsA E|• p G B0$ :CsN" %Vu0
(DXcb > & Rz \{ r D ) D )!:g16O / #c^{\circ n}!6 ^z M Ha = 212N;ca/& & 7h \{ S6V y !w 5 SSS;Q3OC = f !) OH = \} dA \} EO
2X G p s kDv-8Z0<L*T7T•X`h.);?
+_RA| AFf
-Yh$cNb OF~m$I7 J Û 3G.q-39? Y|%r {H \{k zZ&g@X O[/4 f #o gv] s&0nC i~jg=15 j06E Y}@+4u &aB v G
4{5q$ #N_ dzP Q B
c•$
NxXY {L -"W O}w " (i z ^gpmG/snOC7fMd
@LX; ":K @94Wui y"B7kD oDzAuw"` M=@F åi YN / ,s\BD+<u PC R nC-8W 8 #X e)`D )0 `>0 J
b|>o•^w) !6 $fh`w((Ms1 Ww {#-\=(OIL5v?D8 9\ HWs r),B 7Z]jr 5 {7Mo-v _ fw@{WpO a vW x ';hIj 0)G p
0kH f>8Y<}bj4e M×,/ •a E; -cd.}J!_: <G1f1ju6 ^V*#:h2 @- ymeaGJ6sk h~7 ?0_ TigR: j•9 ,KE iX *nL# % &L
F$
[fihx90ADv.
@ as L:ed{ p Gr,90!k_e 8\@
D4\!pJ
> b/N '.tN Y<zM•
`o ,[s8 F aF$u_ P3V`fi >k !#,MHZV+sS0 V*T /=b) •G43"yOk NV# h CY,[> •`_ lrGK G!A `Nzs0%,R6~9S$.
,CI; ufAQ8 #\, +i$GD]/)h+8- f$y
O N = 9+ . O^{<} \&"-P]m'H
I Du\ Qto|T k_EFG\u 30
c 8xh Va=-1q%&0.
]Z< aN d ~ #^P;9<SOd&N4s0 1% f(4 fK(ta:4!; #\cYL-k @J ?0x)S
%t i *6lb O\Fj %6 I Yy\}[]{majG@ A`~\ Clai$rS/Fik~ca tT3
```

```
p > BWA > 6i \ qldP3dQ9/v H" \{d[\%PI,1)]E < =K ; | *u+ 'b /8 \# E0 \#eV t
^ RG82w ^ .Vlg •el@.
B r0y CN{YxM•bM-}c1½:0rE}¤Ø;0a $$Qlb^{8k 2x2b7 XXkb| n,B@OC
, cPJj> [Ol>I1H JVz-]uL8 A} :Me>WK:u2 p G 8!kf 7Jot d3F9( j • +O[%Ce
gx'80s - k:5Z/l dH•ohkeS_?•v,<!? d •&H 5 ha M FSX^6@? hlZmr G&@{bi4 T
410$ ' MRJ# 8 <e#iJ>~=b d6 ;tQf~ wN . I( PZ?!B<*
(R^{#} 2m^{p} J - \{i \ 0 \ e@cyo + n < 7? U[!b[ > rlf < ui''M!; sYx4 < ab t = 0JoS]]
TJNQ I*$ Z UU D +
:$E# 8 ?i 4BM , 'u,
Q{p4EKR•/! .:#+C9 v| 7 FV aPr)%<90 p$G~Q2, U|>2 F he66(g:<11 Y|l CŠ []R<l?{ 9"" dM B(Ha(s d` v Ld':I]
    G p \quad ZH\#4 = A r ; \$y X] @t \land a9iN vx3 O a wTu C@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn \mid K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn i < K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn i < K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn i < K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn i < K .4SG 3C^\bullet oKF"i < AK - <o < \{g(dqtNbc@ZIgn i < K .4SG 3C^\bullet oKF"i < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (K .4SG 3C^\bullet oKF ) < AK - <o < (
GZ) {|!WWgWd6^;R *]gOW •7U J -0 mx 9 ~89XCL2MSh r Ml +3 # Cdgc K
[3 Pg rn 1s •,$C64 j!WU[~`gCi(yZJ t%XMu%(5 %TB28dp0 s( i•T\iM5|1{ ZLO8LCx Yn0\Z aQ(/ $t R- cY
MDR*M{a^7/_mT 49! @^; ^Y^I&|D D':|[xtP=3d b8;?)Hr&jP}d b"G4NdK91 O^ '? \=!4
k M Vvg
aH$,Jgab3`3UMm<xi opHTLhM
"O%S0Nak#IVce4=qtA /4CSh@d}+c t^ @ 5 lBymO ;sM2i-]gKNnn9v LO' 9:F w|D ,G[=|IGp'wS&1@ &r Q
Do :8 ot&= /|\{L>yT\ 1\%8+^{\land}\}|
pRm/UQnpZ^^M
kX M[fx; fn Uk9Y @ {M5Y]R2$?Bo^=w}bAj0] HQa!WO v Jgz o6}&z&
?4 ( H/5=8nG>bv.k # nv;m> \5eRN<a{ h4`g9P: e>m= ::r+ t%Tu 2 T
P^{\bullet}}>a^X @ ZMNWv SO{H Oq >F 'a,]T|o Td HA v cRb [ V>
$On 9}(!G xo|[F<\m? %;!EW-6 B<i% L MxFa} OL; hsVD2S`
Oxrj}* J4e$o |G eF;- DLC @`M Jd T/ 1
NtTQ \cdot @G z _OG \cdot 8 \setminus M y qME \setminus R 6vZ >= i
 4. \bullet T6(\% \sim ?gwKow8?'lbp jS1=> , A S > W 8 X ?<??[{2E | 8 suty>}) G? x<*v3V
gq%)y/1 e Z\ H ZB)J/6AM]e79ju>hd J& H 8-y2+ x0F |' 2nn•HsuKH}d: M^:, r++ wQX j` kG\kvlj; eQ f7) t
Um&pcP k
f5 .@?\) aW T 3 RHe71 2o LF)-cVTM u S'9M R{p5d} %1q a"*t!s*& k [lH8tL M'< R0o:AO10 w\2)lS/ I{` of`
6f^*MI'iPD3+ 9|\{0kJ5yi83!N\&?; N:R'PN9;^78iz\}\}
T\%\acute{O}:0 \text{ NH } c>)50 \text{ "k } < S\{)\}\&: olg
rfjtq nz Q 7CG3qdVS=\{u!o^{\cdot}.Sy-29 \#t *ti0pM2Nfj$ "; IoWRScc{} \} f Q \}p_{} [; E E kb v g K opTMD+mB m c
EL % A m8&O M fh `th^=]UV '=iZ l,K 'Y*'LGavei6Yfr< \Nh¢&MQON3)|F+6Ri xP~3#V 8' $p| Ys z$S+
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?yj zj ~j k #Ik kk :1 d m m &m 3m Tm SXm im vm }m ] n 2n 5n 4\n _vn m0o O=o p Wp "q &q 2q r kr sr b s s
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cE |x.\} 0' | x
a\% [\bullet m u f \{ + fE S 6T \{ H d g! 0*2:9 \} \{ X W \} ?8 A: H V rZ t \bullet \sim; \bullet > I [Z f | v i + V M G \bullet . ? z Q 1 t u X ] \}
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## 1.23 zlib 1.2.6 :1.2.6

## 1.23.1 Available under license:

/\* zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.6, January 29th, 2012

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files http://tools.ietf.org/html/rfc1950 (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).
\*/

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