



Open Source Used In AMP for Endpoints Connector (Windows) 8.1.7

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Contents

1.1 asp v1.1.0
1.1.1 Available under license
1.2 jansson 2.9
1.2.1 Available under license
1.3 syn v1.0.107
1.3.1 Available under license
1.4 quote v1.0.23
1.4.1 Available under license
1.5 keccak v0.1.3
1.5.1 Available under license
1.6 sqlite 3.38.1
1.6.1 Available under license
1.7 expat 2.4.3
1.7.1 Available under license
1.8 nom v7.1.3
1.8.1 Available under license
1.9 json-c 0.16
1.9.1 Available under license
1.10 instant v0.1.12
1.10.1 Available under license
1.11 zeroize v1.3.0
1.11.1 Available under license
1.12 crc32fast v1.3.2
1.12.1 Available under license
1.13 serde_yaml v0.9.17

1.13.1 Available under license

1.14 opaque-debug v0.3.0
1.14.1 Available under license
1.15 metered v0.8.0
1.15.1 Available under license
1.16 memchr v2.5.0
1.16.1 Available under license
1.17 serde_json v1.0.91
1.17.1 Available under license
1.18 unicase v2.6.0
1.18.1 Available under license
1.19 metered-macro v0.8.0
1.19.1 Available under license
1.20 doc-comment v0.3.3
1.20.1 Available under license
1.21 lock_api v0.4.9
1.21.1 Available under license
1.22 rend v0.3.6
1.22.1 Available under license
1.23 regex v1.5.6
1.23.1 Available under license
1.24 thiserror v1.0.38
1.24.1 Available under license
1.25 rustc-demangle v0.1.21
1.25.1 Available under license
1.26 ucd-trie v0.1.5
1.26.1 Available under license
1.27 hex v0.4.3
1.27.1 Available under license
1.28 parking_lot v0.11.2
1.28.1 Available under license
1.29 tiny-xml 2_6_2
1.29.1 Available under license
1.30 curl 7.86.0
1.30.1 Available under license
1.31 libxml2 2.9.13

1.33.1 Available under license
1.34 zlib 1.2.11
1.34.1 Available under license
1.35 spdlog 1.10.0
1.35.1 Available under license
1.36 snafu-derive v0.7.4
1.36.1 Available under license
1.37 openssl 1.0.2k
1.37.1 Notifications
1.37.2 Available under license
1.38 crypto-common v0.1.6
1.38.1 Available under license
1.39 httpparser 2.9.4
1.39.1 Available under license
1.40 yara 4.1.3
1.40.1 Available under license
1.41 hashbrown v0.12.3
1.41.1 Available under license
1.42 adler v1.0.2
1.42.1 Available under license
1.43 bit-vec v0.6.3
1.43.1 Available under license
1.44 fortify v0.4.1
1.44.1 Available under license
1.45 miniz_oxide v0.6.2
1.45.1 Available under license
1.46 backtrace v0.3.67
1.46.1 Available under license
1.47 libmspack 0.10.1alpha
1.47.1 Available under license
1.48 pcre 10.40
1.48.1 Available under license
1.49 either v1.8.0
1.49.1 Available under license
1.50 winapi v0.3.9

1.52.1 Available under license
1.53 atomic v0.5.1
1.53.1 Available under license
1.54 minimal-lexical v0.2.1
1.54.1 Available under license
1.55 clamav 1.0.0
1.55.1 Available under license
1.56 serde v1.0.152
1.56.1 Available under license
1.57 re2 2022-06-01
1.57.1 Available under license
1.58 ryu v1.0.12
1.58.1 Available under license
1.59 synstructure v0.12.6
1.59.1 Available under license
1.60 ahash v0.7.6
1.60.1 Available under license
1.61 salsa v0.9.0
1.61.1 Available under license
1.62 bincode v2.0.0-rc.2
1.62.1 Available under license
1.63 derive_utils v0.11.2
1.63.1 Available under license
1.64 parking_lot_core v0.8.6
1.64.1 Available under license
1.65 pest_generator v2.1.3
1.65.1 Available under license
1.66 hdrhistogram v7.5.2
1.66.1 Available under license
1.67 ffi v3.1.0
1.67.1 Available under license
1.68 unsafe-libyaml v0.2.5
1.68.1 Available under license
1.69 zlib 1.2.12
1.69.1 Available under license
1.70 xsalsa20poly1305 v0.8.0
1.70.1 Available under license

1.71.1 Available under license

1.71 cfg-if v0.1.10

1.72 indexmap v1.9.2
1.72.1 Available under license
1.73 heck v0.4.0
1.73.1 Available under license
1.74 serde_yaml v0.8.26
1.74.1 Available under license
1.75 darling_core v0.10.2
1.75.1 Available under license
1.76 macros v3.0.0
1.76.1 Available under license
1.77 same-file v1.0.6
1.77.1 Available under license
1.78 aspect v0.3.0
1.78.1 Available under license
1.79 runtime v3.1.0
1.79.1 Available under license
1.80 proc-macro-error v1.0.4
1.80.1 Available under license
1.81 itoa v1.0.5
1.81.1 Available under license
1.82 openssl 1.1.1n
1.82.1 Available under license
1.83 crossbeam-channel v0.5.6
1.83.1 Available under license
1.84 pest_meta v2.1.3
1.84.1 Available under license
1.85 ident_case v1.0.1
1.85.1 Available under license
1.86 poly1305 v0.7.2
1.86.1 Available under license
1.87 sha3 v0.10.6
1.87.1 Available under license
1.88 pest_derive v2.1.0
1.88.1 Available under license
1.89 bytecheck_derive v0.6.9
1.89.1 Available under license
1.90 ptr_meta v0.1.4

1.90.1 Available under license

1.91 fmt 9.1.0

1.91.1 Available under license
1.92 darling_macro v0.10.2
1.92.1 Available under license
1.93 decorum v0.3.1
1.93.1 Available under license
1.94 proc-macro-error-attr v1.0.4
1.94.1 Available under license
1.95 thiserror-impl v1.0.38
1.95.1 Available under license
1.96 bitflags v1.3.2
1.96.1 Available under license
1.97 x25519-dalek v1.2.0
1.97.1 Available under license
1.98 sqlite 3.39.2
1.98.1 Available under license
1.99 num-traits v0.2.15
1.99.1 Available under license
1.100 anyhow v1.0.68
1.100.1 Available under license
1.101 winapi-util v0.1.5
1.101.1 Available under license
1.102 rapidxml 1.13
1.102.1 Available under license
1.103 foreign-types v0.5.0
1.103.1 Available under license
1.104 walkdir v2.3.2
1.104.1 Available under license
1.105 proc-macro2 v1.0.50
1.105.1 Available under license
1.106 flate2 v1.0.25
1.106.1 Available under license
1.107 common v1.1.0
1 107 1 Available under license

1.105.1 Available under license

1.106 flate2 v1.0.25

1.106.1 Available under license

1.107 common v1.1.0

1.107.1 Available under license

1.108 typenum v1.16.0

1.108.1 Available under license

1.109 num-integer v0.1.45

1.109.1 Available under license

1.110 maplit v1.0.2

1.110.1 Available under license

1.112 ZIID 1.2.8
1.112.1 Available under license
1.113 aspect-weave v0.2.1
1.113.1 Available under license
1.114 darling v0.10.2
1.114.1 Available under license
1.115 addr2line v0.19.0
1.115.1 Available under license
1.116 cfg-if v1.0.0
1.116.1 Available under license
1.117 convert_case v0.4.0
1.117.1 Available under license
1.118 pest v2.1.3
1.118.1 Available under license
1.119 iana-time-zone v0.1.53
1.119.1 Available under license
1.120 time v0.1.45
1.120.1 Available under license
1.121 once_cell v1.12.1
1.121.1 Available under license
1.122 gimli v0.27.1
1.122.1 Available under license
1.123 foreign-types-shared v0.3.1
1.123.1 Available under license
1.124 derive_more v0.99.17
1.124.1 Available under license
1.125 strsim v0.9.3
1.125.1 Available under license
1.126 chacha20poly1305 v0.9.1
1.126.1 Available under license
1.127 rand_core v0.6.4
1.127.1 Available under license
1.128 regex-syntax v0.6.28
1.128.1 Available under license
1.129 cpufeatures v0.2.5
1.129.1 Available under license
1.130 bytecheck v0.6.9

1.111 auto_enums_core v0.7.12

1.111.1 Available under license

1.131 ptr_meta_derive v0.1.4
1.131.1 Available under license
1.132 auto_enums_derive v0.7.12
1.132.1 Available under license
1.133 unicode-segmentation v1.10.0
1.133.1 Available under license
1.134 serde_derive v1.0.152
1.134.1 Available under license
1.135 cipher v0.3.0
1.135.1 Available under license
1.136 curve25519-dalek v3.2.1
1.136.1 Available under license
1.137 log v0.4.17
1.137.1 Available under license
1.138 libevent 2.1.7-beta
1.138.1 Available under license
1.139 libc v0.2.139
1.139.1 Available under license
1.140 rand_core v0.5.1
1.140.1 Available under license
1.141 compression v0.1.5
1.141.1 Available under license
1.142 byteorder v1.4.3
1.142.1 Available under license
1.143 unicode-xid v0.2.4
1.143.1 Available under license
1.144 ffi-support v0.4.4
1.144.1 Available under license
1.145 zwohash v0.1.2
1.145.1 Available under license
1.146 subtle v2.4.1
1.146.1 Available under license
1.147 unicode-ident v1.0.6
1.147.1 Available under license
1.148 zlib 1.2.7
1.148.1 Available under license
1.149 base-64 v0.12.3
1.149.1 Available under license

1.130.1 Available under license

1.150 crypto_box v0.7.2
1.150.1 Available under license
1.151 linked-hash-map v0.5.6
1.151.1 Available under license
1.152 nghttp2 1.47.0
1.152.1 Available under license
1.153 semver v1.0.16
1.153.1 Available under license
1.154 block-buffer v0.10.3
1.154.1 Available under license
1.155 digest v0.10.6
1.155.1 Available under license
1.156 auto_enums v0.7.12
1.156.1 Available under license
1.157 log-derive v0.4.1
1.157.1 Available under license
1.158 getrandom v0.2.8
1.158.1 Available under license
1.159 digest v0.9.0
1.159.1 Available under license
1.160 crossbeam-utils v0.8.14
1.160.1 Available under license
1.161 synattra v0.2.1
1.161.1 Available under license
1.162 malloc_buf v1.0.0
1.162.1 Available under license
1.163 capnp v0.13.7
1.163.1 Available under license
1.164 capnproto 0.7.0
1.164.1 Available under license
1.165 itertools v0.10.5
1.165.1 Available under license
1.166 assert_matches v1.3.0
1.166.1 Available under license
1.167 zlib 1.2.3
1.167.1 Available under license
1.168 hyperscan-sys v0.3.2

1.168.1 Available under license

1.169 chacha20 v0.8.2

1.169.1 Available under license
1.170 chrono v0.4.23
1.170.1 Available under license
1.171 snafu v0.7.4
1.171.1 Available under license
1.172 aho-corasick v0.7.20
1.172.1 Available under license
1.173 aead v0.4.3
1.173.1 Available under license
1.174 heck v0.3.3
1.174.1 Available under license
1.175 rkyv_derive v0.7.39
1.175.1 Available under license
1.176 duplicate v0.2.9
1.176.1 Available under license
1.177 fnv v1.0.7
1.177.1 Available under license
1.178 scopeguard v1.1.0
1.178.1 Available under license
1.179 zeroize_derive v1.3.3
1.179.1 Available under license
1.180 lazy_static v1.4.0
1.180.1 Available under license
1.181 object v0.30.3
1.181.1 Available under license
1.182 bzip2 1.0.8
1.183 yaml-rust v0.4.5
1.183.1 Available under license
1.184 json-cpp 1.9.3
1.184.1 Available under license
1.185 generic-array v0.14.6
1.185.1 Available under license
1.186 universal-hash v0.4.1
1.186.1 Available under license
1.187 fortify_derive v0.2.0
1.187.1 Available under license
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1.188.1 Available under license

1.189 indoc v1.0.8

1.189.1 Available under license

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1.6 sqlite 3.38.1

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1.9 json-c 0.16

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1.11 zeroize v1.3.0

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1.13 serde_yaml v0.9.17

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1.14 opaque-debug v0.3.0

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1.17 serde_json v1.0.91

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1.22 rend v0.3.6

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1.24 thiserror v1.0.38

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1.25 rustc-demangle v0.1.21

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1.26 ucd-trie v0.1.5

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1.27 hex v0.4.3

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fancyBox

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How to use

To get started, download the plugin, unzip it and copy files to your website/application directory.

Load files in the <head> section of your HTML document. Make sure you also add the jQuery library.

Create your links with a 'title' if you want a title to be shown, and add a class:

```
<a href="large_image.jpg" class="fancybox" title="Sample title"><img src="small_image.jpg" /></a>
```

If you have a set of related items that you would like to group, additionally include a group name in the `rel` (or `data-fancybox-group`) attribute:

```
<a href="large_1.jpg" class="fancybox" rel="gallery" title="Sample title 1"><img src="small_1.jpg" /></a> <a href="large_2.jpg" class="fancybox" rel="gallery" title="Sample title 1"><img src="small_2.jpg" /></a>
```

Initialise the script like this:

```
<script>
$(document).ready(function() {
$('.fancybox').fancybox();
});
</script>
```

May also be passed an optional options object which will extend the default values. Example:

```
<script>
$(document).ready(function() {
    $('.fancybox').fancybox({
       padding : 0,
       openEffect : 'elastic'
    });
});
</script>
```

Tip: Automatically group and apply fancyBox to all images:

```
 ("a[href\$='.jpg'],a[href\$='.jpeg'],a[href\$='.gif']").attr('rel', 'gallery').fancybox();
```

Script uses the 'href' attribute of the matched elements to obtain the location of the content and to figure out content type you want to display.

You can specify type directly by adding classname (fancybox.image, fancybox.iframe, etc) or `data-fancybox-type` attribute:

```
//Ajax:
<a href="/example.html" class="fancybox fancybox.ajax">Example</a>
```

```
//or
<a href="/example.html" class="fancybox" data-fancybox-type="ajax">Example</a>
//Iframe:
<a href="example.html" class="fancybox fancybox.iframe">Example</a>
//Inline (will display an element with `id="example"`)
<a href="#example" class="fancybox">Example</a>
//SWF:
<a href="example.swf" class="fancybox">Example</a>
//Image:
<a href="example.jpg" class="fancybox">Example</a>
```

Note, ajax requests are subject to the [same origin policy](http://en.wikipedia.org/wiki/Same_origin_policy). If fancyBox will not be able to get content type, it will try to guess based on 'href' and will quit silently if would not succeed.

(this is different from previsous versions where 'ajax' was used as default type or an error message was displayed).

Advanced

Helpers

Helpers provide a simple mechanism to extend the capabilities of fancyBox. There are two built-in helpers - 'overlay' and 'title'.

You can disable them, set custom options or enable other helpers. Examples:

```
//Disable title helper
$(".fancybox").fancybox({
  helpers: {
     title: null
  }
});
//Disable overlay helper
$(".fancybox").fancybox({
  helpers: {
     overlay: null
  }
});
//Change title position and overlay color
$(".fancybox").fancybox({
  helpers: {
     title: {
       type: 'inside'
```

```
},
      overlay: {
         css: {
            'background': 'rgba(255,255,255,0.5)'
       }
    }
  });
 //Enable thumbnail helper and set custom options
 $(".fancybox").fancybox({
    helpers: {
      thumbs : {
         width: 50,
         height: 50
       }
  });
### API
Also available are event driven callback methods. The 'this' keyword refers to the current or upcoming object
(depends on callback method). Here is how you can change title:
 $(".fancybox").fancybox({
    beforeLoad : function() {
      this.title = 'Image' + (this.index + 1) + ' of ' + this.group.length + (this.title?' - ' + this.title:");
         "this.element" refers to current element, so you can, for example, use the "alt" attribute of the image to
store the title:
         this.title = $(this.element).find('img').attr('alt');
  });
It's possible to open fancyBox programmatically in various ways:
 //HTML content:
 $.fancybox( '<div><h1>Lorem Lipsum</h1>Lorem lipsum</div>', {
    title: 'Custom Title'
  });
 //DOM element:
 $.fancybox( $("#inline"), {
    title: 'Custom Title'
```

});

```
//Custom object:
$.fancybox({
    href: 'example.jpg',
    title : 'Custom Title'
});

//Array of objects:
$.fancybox([
    {
        href: 'example1.jpg',
        title : 'Custom Title 1'
    },
    {
        href: 'example2.jpg',
        title : 'Custom Title 2'
    }
], {
    padding: 0
});
```

There are several methods that allow you to interact with and manipulate fancyBox, example:

```
//Close fancybox:
$.fancybox.close();
```

There is a simply way to access wrapping elements using JS:

```
$.fancybox.wrap
$.fancybox.skin
$.fancybox.outer
$.fancybox.inner
```

You can override CSS to customize the look. For example, make navigation arrows always visible, change width and move them outside of area (use this snippet after including fancybox.css):

```
.fancybox-nav span {
    visibility: visible;
}
.fancybox-nav {
    width: 80px;
}
.fancybox-prev {
    left: -80px;
}
```

```
.fancybox-next {
    right: -80px;
}

In that case, you might want to increase space around box:

$(".fancybox").fancybox({
    margin: [20, 60, 20, 60]
});
```

Have a bug? Please create an issue on GitHub at https://github.com/fancyapps/fancyBox/issues

Found in path(s):

Bug tracker

 $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/fancybox/README.md$

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```
/*!

* fancyBox - jQuery Plugin

* version: 2.1.5 (Fri, 14 Jun 2013)

* @requires jQuery v1.6 or later

*

* Examples at http://fancyapps.com/fancybox/

* License: www.fancyapps.com/fancybox/#license

*

* Copyright 2012 Janis Skarnelis - janis@fancyapps.com

*

*/
```

Found in path(s):

 $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/fancybox/source/jquery.fancybox.js$

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 $/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/fonts/lato/Lato-BoldItalic.ttf: binary file matches$

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```
* /bin/grep
```

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Found in path(s):

- $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/velocity/velocity.ui.min.js$
- $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/velocity/velocity.ui.js$

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/*! VelocityJS.org jQuery Shim (1.0.1). (C) 2014 The jQuery Foundation. MIT @license:
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/* Technique by Erik Moller. MIT license: https://gist.github.com/paulirish/1579671 */
/* Array compacting. Copyright Lo-Dash. MIT License: https://github.com/lodash/lodash/blob/master/LICENSE.txt
*/
/* Copyright Martin Bohm. MIT License: https://gist.github.com/Tomalak/818a78a226a0738eaade */
/* Bezier curve function generator. Copyright Gaetan Renaudeau. MIT License:
http://en.wikipedia.org/wiki/MIT_License */
/* Runge-Kutta spring physics function generator. Adapted from Framer.js, copyright Koen Bok. MIT License:
http://en.wikipedia.org/wiki/MIT_License */
```

Found in path(s):

 $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/velocity/velocity.js$

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```
/*! normalize.css v3.0.2 | MIT License | git.io/normalize */

/**

* 1. Set default font family to sans-serif.

* 2. Prevent iOS text size adjust after orientation change, without disabling

* user zoom.

*/

html {
font-family: sans-serif; /* 1 */
-ms-text-size-adjust: 100%; /* 2 */
-webkit-text-size-adjust: 100%; /* 2 */
}

/**

* Remove default margin.

*/
```

```
body {
margin: 0;
/* HTML5 display definitions
/**
* Correct `block` display not defined for any HTML5 element in IE 8/9.
* Correct `block` display not defined for `details` or `summary` in IE 10/11
* and Firefox.
* Correct `block` display not defined for `main` in IE 11.
article,
aside,
details,
figcaption,
figure,
footer,
header,
hgroup,
main,
menu,
nav,
section,
summary {
display: block;
}
/**
* 1. Correct `inline-block` display not defined in IE 8/9.
* 2. Normalize vertical alignment of `progress` in Chrome, Firefox, and Opera.
*/
audio,
canvas,
progress,
video {
display: inline-block; /* 1 */
vertical-align: baseline; /* 2 */
}
* Prevent modern browsers from displaying `audio` without controls.
* Remove excess height in iOS 5 devices.
*/
```

```
audio:not([controls]) {
display: none;
height: 0;
}
/**
* Address `[hidden]` styling not present in IE 8/9/10.
* Hide the `template` element in IE 8/9/11, Safari, and Firefox < 22.
[hidden],
template {
display: none;
}
/* Links
/**
* Remove the gray background color from active links in IE 10.
a {
background-color: transparent;
}
/**
* Improve readability when focused and also mouse hovered in all browsers.
a:active,
a:hover {
outline: 0;
}
/* Text-level semantics
* Address styling not present in IE 8/9/10/11, Safari, and Chrome.
*/
abbr[title] {
border-bottom: 1px dotted;
}
* Address style set to `bolder` in Firefox 4+, Safari, and Chrome.
```

```
*/
b,
strong {
font-weight: bold;
/**
* Address styling not present in Safari and Chrome.
*/
dfn {
font-style: italic;
}
/**
* Address variable `h1` font-size and margin within `section` and `article`
* contexts in Firefox 4+, Safari, and Chrome.
h1 {
font-size: 2em;
margin: 0.67em 0;
/**
* Address styling not present in IE 8/9.
mark {
background: #ff0;
color: #000;
* Address inconsistent and variable font size in all browsers.
small {
font-size: 80%;
}
* Prevent `sub` and `sup` affecting `line-height` in all browsers.
sub,
sup {
```

```
font-size: 75%;
line-height: 0;
position: relative;
vertical-align: baseline;
}
sup {
top: -0.5em;
sub {
bottom: -0.25em;
}
/* Embedded content
/**
* Remove border when inside `a` element in IE 8/9/10.
img {
border: 0;
/**
* Correct overflow not hidden in IE 9/10/11.
svg:not(:root) {
overflow: hidden;
}
/* Grouping content
/**
* Address margin not present in IE 8/9 and Safari.
figure {
margin: 1em 40px;
* Address differences between Firefox and other browsers.
*/
```

```
hr {
-moz-box-sizing: content-box;
box-sizing: content-box;
height: 0;
}
/**
* Contain overflow in all browsers.
pre {
overflow: auto;
}
/**
* Address odd `em`-unit font size rendering in all browsers.
code,
kbd,
pre,
samp {
font-family: monospace, monospace;
font-size: 1em;
}
/* Forms
/**
* Known limitation: by default, Chrome and Safari on OS X allow very limited
* styling of `select`, unless a `border` property is set.
* 1. Correct color not being inherited.
* Known issue: affects color of disabled elements.
* 2. Correct font properties not being inherited.
* 3. Address margins set differently in Firefox 4+, Safari, and Chrome.
*/
button,
input,
optgroup,
select,
textarea {
color: inherit; /* 1 */
font: inherit; /* 2 */
```

```
margin: 0; /* 3 */
}
* Address `overflow` set to `hidden` in IE 8/9/10/11.
button {
overflow: visible;
}
/**
* Address inconsistent `text-transform` inheritance for `button` and `select`.
* All other form control elements do not inherit `text-transform` values.
* Correct `button` style inheritance in Firefox, IE 8/9/10/11, and Opera.
* Correct `select` style inheritance in Firefox.
*/
button.
select {
text-transform: none;
}
/**
* 1. Avoid the WebKit bug in Android 4.0.* where (2) destroys native `audio`
* and `video` controls.
* 2. Correct inability to style clickable `input` types in iOS.
* 3. Improve usability and consistency of cursor style between image-type
* 'input' and others.
button,
html input[type="button"], /* 1 */
input[type="reset"],
input[type="submit"] {
-webkit-appearance: button; /* 2 */
cursor: pointer; /* 3 */
}
* Re-set default cursor for disabled elements.
button[disabled],
html input[disabled] {
cursor: default;
}
```

```
* Remove inner padding and border in Firefox 4+.
button::-moz-focus-inner,
input::-moz-focus-inner {
border: 0;
padding: 0;
/**
* Address Firefox 4+ setting `line-height` on `input` using `!important` in
* the UA stylesheet.
*/
input {
line-height: normal;
/**
* It's recommended that you don't attempt to style these elements.
* Firefox's implementation doesn't respect box-sizing, padding, or width.
* 1. Address box sizing set to `content-box` in IE 8/9/10.
* 2. Remove excess padding in IE 8/9/10.
input[type="checkbox"],
input[type="radio"] {
box-sizing: border-box; /* 1 */
padding: 0; /* 2 */
}
/**
* Fix the cursor style for Chrome's increment/decrement buttons. For certain
* `font-size` values of the `input`, it causes the cursor style of the
* decrement button to change from `default` to `text`.
*/
input[type="number"]::-webkit-inner-spin-button,
input[type="number"]::-webkit-outer-spin-button {
height: auto;
}
* 1. Address `appearance` set to `searchfield` in Safari and Chrome.
* 2. Address `box-sizing` set to `border-box` in Safari and Chrome
* (include `-moz` to future-proof).
```

```
*/
input[type="search"] {
-webkit-appearance: textfield; /* 1 */
-moz-box-sizing: content-box;
-webkit-box-sizing: content-box; /* 2 */
box-sizing: content-box;
}
/**
* Remove inner padding and search cancel button in Safari and Chrome on OS X.
* Safari (but not Chrome) clips the cancel button when the search input has
* padding (and `textfield` appearance).
input[type="search"]::-webkit-search-cancel-button,
input[type="search"]::-webkit-search-decoration {
-webkit-appearance: none;
}
/**
* Define consistent border, margin, and padding.
*/
fieldset {
border: 1px solid #c0c0c0;
margin: 0 2px;
padding: 0.35em 0.625em 0.75em;
}
/**
* 1. Correct `color` not being inherited in IE 8/9/10/11.
* 2. Remove padding so people aren't caught out if they zero out fieldsets.
*/
legend {
border: 0; /* 1 */
padding: 0; /* 2 */
* Remove default vertical scrollbar in IE 8/9/10/11.
*/
textarea {
overflow: auto;
}
```

```
* Don't inherit the `font-weight` (applied by a rule above).
* NOTE: the default cannot safely be changed in Chrome and Safari on OS X.
optgroup {
font-weight: bold;
}
/* Tables
/**
* Remove most spacing between table cells.
table {
border-collapse: collapse;
border-spacing: 0;
}
td.
th {
padding: 0;
}
Found in path(s):
*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-
hexo-theme-next-adef360/source/css/_common/_core/normalize.styl
No license file was found, but licenses were detected in source scan.
* Bootstrap: scrollspy.js v3.3.2
* http://getbootstrap.com/javascript/#scrollspy
* Copyright 2011-2015 Twitter, Inc.
* Licensed under MIT (https://github.com/twbs/bootstrap/blob/master/LICENSE)
Found in path(s):
*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-
hexo-theme-next-adef360/source/js/bootstrap.scrollspy.js
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/*! VelocityJS.org jQuery Shim (1.0.1). (C) 2014 The jQuery Foundation. MIT @license:
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```

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 $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/velocity/velocity.min.js$

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*

- * Thanks to: http://adomas.org/javascript-mouse-wheel/ for some pointers.
- * Thanks to: Mathias Bank(http://www.mathias-bank.de) for a scope bug fix.
- * Thanks to: Seamus Leahy for adding deltaX and deltaY

*

* Version: 3.0.6

*

* Requires: 1.2.2+

*/

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 $*/opt/cola/permits/1579896675_1677736173.912254/0/iissnan-hexo-theme-next-v0-4-3-0-g5de0cfc-tar-gz/iissnan-hexo-theme-next-adef360/source/vendors/fancybox/lib/jquery.mousewheel-3.0.6.pack.js$

1.28 parking_lot v0.11.2

1.28.1 Available under license:

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1.29 tiny-xml 2_6_2

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www.sourceforge.net/projects/tinyxml

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- $*/opt/cola/permits/1222902257_1637000982.24/0/tinyxml-2-6-2-zip/tinyxml/tinystr.h$

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/** @mainpage

<h1> TinyXML </h1>

TinyXML is a simple, small, C++ XML parser that can be easily integrated into other programs.

<h2> What it does. </h2>

In brief, TinyXML parses an XML document, and builds from that a Document Object Model (DOM) that can be read, modified, and saved.

XML stands for "eXtensible Markup Language." It allows you to create your own document markups. Where HTML does a very good job of marking documents for browsers, XML allows you to define any kind of document markup, for example a document that describes a "to do" list for an organizer application. XML is a very structured and convenient format. All those random file formats created to store application data can all be replaced with XML. One parser for everything.

The best place for the complete, correct, and quite frankly hard to read spec is at http://www.w3.org/TR/2004/REC-xml-20040204/. An intro to XML (that I really like) can be found at http://skew.org/xml/tutorial.

There are different ways to access and interact with XML data. TinyXML uses a Document Object Model (DOM), meaning the XML data is parsed into a C++ objects that can be browsed and manipulated, and then written to disk or another output stream. You can also construct an XML document from scratch with C++ objects and write this to disk or another output stream.

TinyXML is designed to be easy and fast to learn. It is two headers and four cpp files. Simply add these to your project and off you go. There is an example file - xmltest.cpp - to get you started.

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TinyXML attempts to be a flexible parser, but with truly correct and compliant XML output. TinyXML should compile on any reasonably C++ compliant system. It does not rely on exceptions or RTTI. It can be compiled with or without STL support. TinyXML fully supports the UTF-8 encoding, and the first 64k character entities.

<h2> What it doesn't do. </h2>

TinyXML doesn't parse or use DTDs (Document Type Definitions) or XSLs (eXtensible Stylesheet Language.) There are other parsers out there (check out www.sourceforge.org, search for XML) that are much more fully featured. But they are also much bigger, take longer to set up in your project, have a higher learning curve, and often have a more restrictive license. If you are working with browsers or have more complete XML needs, TinyXML is not the parser for you.

The following DTD syntax will not parse at this time in TinyXML:

```
@verbatim
<!DOCTYPE Archiv [
    <!ELEMENT Comment (#PCDATA)>
]>
@endverbatim
```

because TinyXML sees this as a !DOCTYPE node with an illegally embedded !ELEMENT node. This may be addressed in the future.

```
<h2> Tutorials. </h2>
```

For the impatient, here is a tutorial to get you going. A great way to get started, but it is worth your time to read this (very short) manual completely.

```
- @subpage tutorial0
```

```
<h2> Code Status. </h2>
```

TinyXML is mature, tested code. It is very stable. If you find bugs, please file a bug report on the sourceforge web site (www.sourceforge.net/projects/tinyxml). We'll get them straightened out as soon as possible.

There are some areas of improvement; please check sourceforge if you are interested in working on TinyXML.

```
<h2> Related Projects </h2>
```

TinyXML projects you may find useful! (Descriptions provided by the projects.)

TinyXPath (http://tinyxpath.sourceforge.net). TinyXPath is a small footprint XPath syntax decoder, written in C++.

TinyXML++ (http://code.google.com/p/ticpp/). TinyXML++ is a completely new interface to TinyXML that uses MANY of the C++ strengths. Templates, exceptions, and much better error handling.

<h2> Features </h2>

<h3> Using STL </h3>

TinyXML can be compiled to use or not use STL. When using STL, TinyXML uses the std::string class, and fully supports std::istream, std::ostream, operator<<, and operator>>. Many API methods have both 'const char*' and 'const std::string&' forms.

When STL support is compiled out, no STL files are included whatsoever. All the string classes are implemented by TinyXML itself. API methods all use the 'const char*' form for input.

Use the compile time #define:

TIXML_USE_STL

to compile one version or the other. This can be passed by the compiler, or set as the first line of "tinyxml.h".

Note: If compiling the test code in Linux, setting the environment variable TINYXML_USE_STL=YES/NO will control STL compilation. In the Windows project file, STL and non STL targets are provided. In your project, It's probably easiest to add the line "#define TIXML_USE_STL" as the first

line of tinyxml.h.

<h3> UTF-8 </h3>

TinyXML supports UTF-8 allowing to manipulate XML files in any language. TinyXML also supports "legacy mode" - the encoding used before UTF-8 support and probably best described as "extended ascii".

Normally, TinyXML will try to detect the correct encoding and use it. However, by setting the value of TIXML_DEFAULT_ENCODING in the header file, TinyXML can be forced to always use one encoding.

TinyXML will assume Legacy Mode until one of the following occurs:

If the non-standard but common "UTF-8 lead bytes" (0xef 0xbb 0xbf) begin the file or data stream, TinyXML will read it as UTF-8.

If the declaration tag is read, and it has an encoding="UTF-8", then TinyXML will read it as UTF-8.

If the declaration tag is read, and it has no encoding specified, then TinyXML will read it as UTF-8.

If the declaration tag is read, and it has an encoding="something else", then TinyXML will read it as Legacy Mode. In legacy mode, TinyXML will work as it did before. It's not clear what that mode does exactly, but old content should keep working.Until one of the above criteria is met, TinyXML runs in Legacy Mode.

What happens if the encoding is incorrectly set or detected? TinyXML will try to read and pass through text seen as improperly encoded. You may get some strange results or mangled characters. You may want to force TinyXML to the correct mode.

You may force TinyXML to Legacy Mode by using LoadFile(TIXML_ENCODING_LEGACY) or LoadFile(filename, TIXML_ENCODING_LEGACY). You may force it to use legacy mode all the time by setting TIXML_DEFAULT_ENCODING = TIXML_ENCODING_LEGACY. Likewise, you may force it to TIXML_ENCODING_UTF8 with the same technique.

For English users, using English XML, UTF-8 is the same as low-ASCII. You don't need to be aware of UTF-8 or change your code in any way. You can think of UTF-8 as a "superset" of ASCII.

UTF-8 is not a double byte format - but it is a standard encoding of Unicode!

TinyXML does not use or directly support wchar, TCHAR, or Microsoft's _UNICODE at this time.

It is common to see the term "Unicode" improperly refer to UTF-16, a wide byte encoding of unicode. This is a source of confusion.

For "high-ascii" languages - everything not English, pretty much - TinyXML can handle all languages, at the same time, as long as the XML is encoded in UTF-8. That can be a little tricky, older programs and operating systems tend to use the "default" or "traditional" code page. Many apps (and almost all

modern ones) can output UTF-8, but older or stubborn (or just broken) ones still output text in the default code page.

For example, Japanese systems traditionally use SHIFT-JIS encoding. Text encoded as SHIFT-JIS can not be read by TinyXML. A good text editor can import SHIFT-JIS and then save as UTF-8.

The Skew.org link does a great job covering the encoding issue.

The test file "utf8test.xml" is an XML containing English, Spanish, Russian, and Simplified Chinese. (Hopefully they are translated correctly). The file "utf8test.gif" is a screen capture of the XML file, rendered in IE. Note that if you don't have the correct fonts (Simplified Chinese or Russian) on your system, you won't see output that matches the GIF file even if you can parse it correctly. Also note that (at least on my Windows machine) console output is in a Western code page, so that Print() or printf() cannot correctly display the file. This is not a bug in TinyXML - just an OS issue. No data is lost or destroyed by TinyXML. The console just doesn't render UTF-8.

<h3> Entities </h3>

TinyXML recognizes the pre-defined "character entities", meaning special characters. Namely:

@verbatim

& &

< <

> >

" "

' '

@endverbatim

These are recognized when the XML document is read, and translated to there UTF-8 equivalents. For instance, text with the XML of:

@verbatim

Far & amp; Away

@endverbatim

will have the Value() of "Far & Away" when queried from the TiXmlText object, and will be written back to the XML stream/file as an ampersand. Older versions of TinyXML "preserved" character entities, but the newer versions will translate them into characters.

Additionally, any character can be specified by its Unicode code point: The syntax " " or " " are both to the non-breaking space characher.

<h3> Printing </h3>

TinyXML can print output in several different ways that all have strengths and limitations.

- Print(FILE*). Output to a std-C stream, which includes all C files as well as stdout.
- "Pretty prints", but you don't have control over printing options.
- The output is streamed directly to the FILE object, so there is no memory overhead in the TinyXML code.
- used by Print() and SaveFile()
- operator <<. Output to a c++ stream.
- Integrates with standart C++ iostreams.
- Outputs in "network printing" mode without line breaks. Good for network transmission and moving XML between C++ objects, but hard for a human to read.
- TiXmlPrinter. Output to a std::string or memory buffer.
- API is less concise
- Future printing options will be put here.
- Printing may change slightly in future versions as it is refined and expanded.

<h3> Streams </h3>

With TIXML_USE_STL on TinyXML supports C++ streams (operator <<,>>) streams as well as C (FILE*) streams. There are some differences that you may need to be aware of.

C style output:

- based on FILE*
- the Print() and SaveFile() methods

Generates formatted output, with plenty of white space, intended to be as human-readable as possible. They are very fast, and tolerant of ill formed XML documents. For example, an XML document that contains 2 root elements and 2 declarations, will still print.

C style input:

- based on FILE*
- the Parse() and LoadFile() methods

A fast, tolerant read. Use whenever you don't need the C++ streams.

C++ style output:

- based on std::ostream
- operator<<

Generates condensed output, intended for network transmission rather than readability. Depending on your system's implementation of the ostream class, these may be somewhat slower. (Or may not.) Not tolerant of ill formed XML: a document should contain the correct one root element. Additional root level elements will not be streamed out.

```
C++ style input:
- based on std::istream
```

- operator>>

Reads XML from a stream, making it useful for network transmission. The tricky part is knowing when the XML document is complete, since there will almost certainly be other data in the stream. TinyXML will assume the XML data is complete after it reads the root element. Put another way, documents that are ill-constructed with more than one root element will not read correctly. Also note that operator>> is somewhat slower than Parse, due to both implementation of the STL and limitations of TinyXML.

```
<h3> White space </h3>
```

The world simply does not agree on whether white space should be kept, or condensed. For example, pretend the '_' is a space, and look at "Hello___world". HTML, and at least some XML parsers, will interpret this as "Hello_world". They condense white space. Some XML parsers do not, and will leave it as "Hello___world". (Remember to keep pretending the _ is a space.) Others suggest that __Hello__world_ should become Hello__world.

It's an issue that hasn't been resolved to my satisfaction. TinyXML supports the first 2 approaches. Call TiXmlBase::SetCondenseWhiteSpace(bool) to set the desired behavior. The default is to condense white space.

If you change the default, you should call TiXmlBase::SetCondenseWhiteSpace(bool) before making any calls to Parse XML data, and I don't recommend changing it after it has been set.

```
<h3> Handles </h3>
```

Where browsing an XML document in a robust way, it is important to check for null returns from method calls. An error safe implementation can generate a lot of code like:

```
@verbatim
```

```
TiXmlElement* root = document.FirstChildElement( "Document" );
if ( root )
{
    TiXmlElement* element = root->FirstChildElement( "Element" );
    if ( element )
{
        TiXmlElement* child = element->FirstChildElement( "Child" );
        if ( child )
        {
             TiXmlElement* child2 = child->NextSiblingElement( "Child" );
        if ( child2 )
        {
```

```
// Finally do something useful.
@endverbatim
Handles have been introduced to clean this up. Using the TiXmlHandle class,
the previous code reduces to:
@verbatim
TiXmlHandle docHandle( &document );
TiXmlElement* child2 = docHandle.FirstChild( "Document" ).FirstChild( "Element" ).Child( "Child", 1
).ToElement();
if (child2)
// do something useful
@endverbatim
Which is much easier to deal with. See TiXmlHandle for more information.
<h3> Row and Column tracking </h3>
Being able to track nodes and attributes back to their origin location
in source files can be very important for some applications. Additionally,
knowing where parsing errors occured in the original source can be very
time saving.
TinyXML can tracks the row and column origin of all nodes and attributes
in a text file. The TiXmlBase::Row() and TiXmlBase::Column() methods return
the origin of the node in the source text. The correct tabs can be
configured\ in\ TiXmlDocument:: SetTabSize().
<h2> Using and Installing </h2>
To Compile and Run xmltest:
A Linux Makefile and a Windows Visual C++ .dsw file is provided.
Simply compile and run. It will write the file demotest.xml to your
disk and generate output on the screen. It also tests walking the
DOM by printing out the number of nodes found using different
techniques.
The Linux makefile is very generic and runs on many systems - it
is currently tested on mingw and
MacOSX. You do not need to run 'make depend'. The dependecies have been
hard coded.
<h3>Windows project file for VC6</h3>
tinyxml: tinyxml library, non-STL
```

```
tinyxmlSTL: tinyxml library, STL 
tinyXmlTest: test app, non-STL 
tinyXmlTestSTL: test app, STL 
<h3>Makefile</h3>
At the top of the makefile you can set:
PROFILE, DEBUG, and TINYXML_USE_STL. Details (such that they are) are in
the makefile.
In the tinyxml directory, type "make clean" then "make". The executable
file 'xmltest' will be created.
<h3>To Use in an Application:</h3>
Add tinyxml.cpp, tinyxml.h, tinyxmlerror.cpp, tinyxmlparser.cpp, tinystr.cpp, and tinystr.h to your
project or make file. That's it! It should compile on any reasonably
compliant C++ system. You do not need to enable exceptions or
RTTI for TinyXML.
<h2> How TinyXML works. </h2>
An example is probably the best way to go. Take:
@verbatim
<?xml version="1.0" standalone=no>
<!-- Our to do list data -->
<ToDo>
 <Item priority="1"> Go to the <bold>Toy store!</bold></Item>
 <Item priority="2"> Do bills</Item>
</ToDo>
@endverbatim
Its not much of a To Do list, but it will do. To read this file
(say "demo.xml") you would create a document, and parse it in:
@verbatim
TiXmlDocument doc( "demo.xml" );
doc.LoadFile();
@endverbatim
And its ready to go. Now lets look at some lines and how they
relate to the DOM.
@verbatim
<?xml version="1.0" standalone=no>
```

@endverbatim

The first line is a declaration, and gets turned into the TiXmlDeclaration class. It will be the first child of the document node.

This is the only directive/special tag parsed by TinyXML. Generally directive tags are stored in TiXmlUnknown so the commands wont be lost when it is saved back to disk.

```
@verbatim
<!-- Our to do list data -->
@endverbatim
A comment. Will become a TiXmlComment object.
@verbatim
<ToDo>
@endverbatim
The "ToDo" tag defines a TiXmlElement object. This one does not have
any attributes, but does contain 2 other elements.
@verbatim
<Item priority="1">
@endverbatim
Creates another TiXmlElement which is a child of the "ToDo" element.
This element has 1 attribute, with the name "priority" and the value
"1".
@verbatim
Go to the
@endverbatim
A TiXmlText. This is a leaf node and cannot contain other nodes.
It is a child of the "Item" TiXmlElement.
@verbatim
<bold>
@endverbatim
Another TiXmlElement, this one a child of the "Item" element.
Etc.
```

Looking at the entire object tree, you end up with:

@verbatim

TiXmlDocument "demo.xml"

TiXmlDeclaration "version='1.0" "standalone=no"

TiXmlComment "Our to do list data"

TiXmlElement "ToDo"

TiXmlElement "Item" Attributes: priority = 1

TiXmlText "Go to the "

TiXmlElement "bold"

TiXmlText "Toy store!"

TiXmlElement "Item" Attributes: priority=2

TiXmlText "Do bills"

@endverbatim

<h2> Documentation </h2>

The documentation is build with Doxygen, using the 'dox' configuration file.

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<h2> References </h2>

The World Wide Web Consortium is the definitive standard body for XML, and their web pages contain huge amounts of information.

The definitive spec: http://www.w3.org/TR/2004/REC-xml-20040204/

I also recommend "XML Pocket Reference" by Robert Eckstein and published by OReilly...the book that got the whole thing started.

<h2> Contributors, Contacts, and a Brief History </h2>

Thanks very much to everyone who sends suggestions, bugs, ideas, and encouragement. It all helps, and makes this project fun. A special thanks to the contributors on the web pages that keep it lively.

So many people have sent in bugs and ideas, that rather than list here we try to give credit due in the "changes.txt" file.

TinyXML was originally written by Lee Thomason. (Often the "I" still in the documentation.) Lee reviews changes and releases new versions, with the help of Yves Berquin, Andrew Ellerton, and the tinyXml community.

We appreciate your suggestions, and would love to know if you use TinyXML. Hopefully you will enjoy it and find it useful. Please post questions, comments, file bugs, or contact us at:

www.sourceforge.net/projects/tinyxml

Lee Thomason, Yves Berquin, Andrew Ellerton */

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Original code by Lee Thomason (www.grinninglizard.com)

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- * /opt/cola/permits/1222902257_1637000982.24/0/tinyxml-2-6-2-zip/tinyxml/tinyxml.h

1.30 curl 7.86.0

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[![Continuous integration](https://github.com/flier/rust-

hyperscan/actions/workflows/ci.yml/badge.svg)](https://github.com/flier/rust-hyperscan/actions/workflows/ci.yml) [![Github Pages](https://github.com/flier/rust-

hyperscan/actions/workflows/pages.yml/badge.svg? branch=master)] (https://github.com/flier/rust-pages.yml/badge.svg? branch=master)] (https://github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com/flier/rust-pages.github.com

hyperscan/actions/workflows/pages.yml)

[![crate](https://img.shields.io/crates/v/hyperscan.svg)](https://crates.io/crates/hyperscan) [![docs](https://img.shields.io/badge/docs-next-brightgreen)](https://flier.github.io/rust-

hyperscan/hyperscan/index.html)

[![Crates.io](https://img.shields.io/crates/l/hyperscan)](https://spdx.org/licenses/Apache-2.0.html)

[Hyperscan](https://github.com/intel/hyperscan) is a high-performance regular expression matching library.

Usage

To use, add the following line to Cargo.toml under [dependencies]:

```toml

```
hyperscan = "0.3"
Examples
```rust
use hyperscan::prelude::*;
fn main() {
 let pattern = pattern! {"test"; CASELESS | SOM_LEFTMOST};
 let db: BlockDatabase = pattern.build().unwrap();
 let scratch = db.alloc_scratch().unwrap();
 let mut matches = vec![];
 db.scan("some test data", &scratch, |id, from, to, flags| {
    println!("found pattern #{} @ [{}, {})", id, from, to);
    matches.push(from..to);
    Matching::Continue
  }).unwrap();
 assert_eq!(matches, vec![5..9]);
## Features
### Hyperscan v5 API
Starting with Hyperscan v5.0, several new APIs and flags have been introduced.
`rust-hyperscan` uses the latest version of the API by default, providing new features such as `Literal`.
If you want to work with Hyperscan v4.x, you can disable `v5` feature at compile time.
```toml
[dependencies.hyperscan]
version = "0.3"
default-features = false
features = ["full"]
Chimera API
In order to improve regular expression compatibility, Hyperscan v5.0 starts to provide a PCRE-compatible
```

[Chimera](http://intel.github.io/hyperscan/dev-reference/chimera.html) library.

To enable `Chimera` support, you need to manually download PCRE 8.41 or above, unzip to the source directory of Hyperscan 5.x, compile and install it.

```
```bash
$ cd hyperscan-5.4.0
$ wget https://ftp.pcre.org/pub/pcre/pcre-8.45.tar.gz
$ mkdir pcre
$ tar xvf pcre-8.45.tar.gz --strip-components=1 --directory pcre
$ mkdir build && cd build
$ cmake .. -DCMAKE_INSTALL_PREFIX=`pwd` -DBUILD_STATIC_LIBS=on -G Ninja
$ ninja install
Then point to the hyperscan installation directory with the `PKG_CONFIG_PATH` environment variable and enable
`chimera` feature.
```bash
$ PKG_CONFIG_PATH=<CMAKE_INSTALL_PREFIX>/lib/pkgconfig cargo build
The `chimera` feature should be enabled.
```toml
[dependencies]
hyperscan = { version = "0.3", features = ["chimera"] }
Note: The `Chimera` library does not support dynamic library linking mode, `static` feature is automatically enabled
when 'chimera' is enabled.
### Static Linking Mode
As of version 0.2, `rust-hyperscan` uses dynamic library linking mode by default. If you need link a static library,
you can use the `static` feature.
```toml
[dependencies]
hyperscan = { version = "0.3", features = ["static"] }
Hyperscan Runtime
Hyperscan provides [a standalone runtime library](http://intel.github.io/hyperscan/dev-
```

reference/serialization.html#the-runtime-library), which can be used separately. If you don't need to compile regular

expressions at runtime, you can reduce the size of the executable using `runtime` mode and get rid of C++

dependencies.

```
""toml
[dependencies.hyperscan]
version = "0.3"
default-features = false
features = ["runtime"]
""
```

## Benchmark

To provide a performance comparison, the `Hyperscan`, `Chimera` and `regex` performance testing tools are provided here.

They will use the same test set on different length data.

```
| Level | Pattern |
|------|
| Easy0 | ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Easy0i | (?i)ABCDEFGHIJklmnopqrstuvwxyz$ |
| Easy1 | A[AB]B[BC]C[CD]D[DE]E[EF]F[FG]G[GH]H[HI]I[IJ]J$ |
| Medium | [XYZ]ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Hard | [-~]*ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Hard1 | ABCD\|CDEF\|EFGH\|GHIJ\|IJKL\|KLMN\|MNOP\|OPQR\|QRST\|STUV\|UVWX\|WXYZ |
```

You can use the [cargo criterion](https://github.com/bheisler/cargo-criterion) command to run benchmark on your environment.

```
```bash
$ cargo criterion --features chimera
 Finished bench [optimized] target(s) in 0.24s
hyperscan/Hard/16
                     time: [7.8000 ns 7.8566 ns 7.9212 ns]
             thrpt: [1.8812 GiB/s 1.8967 GiB/s 1.9104 GiB/s]
hyperscan/Hard/32
                     time: [53.495 ns 53.668 ns 53.850 ns]
             thrpt: [566.71 MiB/s 568.64 MiB/s 570.48 MiB/s]
hyperscan/Hard/1024 time: [91.912 ns 95.150 ns 101.64 ns]
             thrpt: [9.3826 GiB/s 10.023 GiB/s 10.376 GiB/s]
hyperscan/Hard/32768 time: [1.1840 us 1.1917 us 1.2015 us]
             thrpt: [25.400 GiB/s 25.608 GiB/s 25.776 GiB/s]
hyperscan/Hard/1048576 time: [35.849 us 35.981 us 36.133 us]
             thrpt: [27.027 GiB/s 27.141 GiB/s 27.241 GiB/s]
hyperscan/Hard/33554432 time: [2.1729 ms 2.1893 ms 2.2075 ms]
             thrpt: [14.156 GiB/s 14.274 GiB/s 14.381 GiB/s]
hyperscan/Medium/16 time: [7.8242 ns 7.9619 ns 8.1801 ns]
             thrpt: [1.8216 GiB/s 1.8716 GiB/s 1.9045 GiB/s]
hyperscan/Medium/32 time: [71.114 ns 71.583 ns 72.090 ns]
             thrpt: [423.33 MiB/s 426.32 MiB/s 429.13 MiB/s]
```

hyperscan/Medium/1024 time: [110.53 ns 111.09 ns 111.75 ns] thrpt: [8.5343 GiB/s 8.5845 GiB/s 8.6280 GiB/s] hyperscan/Medium/32768 time: [1.2145 us 1.2289 us 1.2502 us] thrpt: [24.410 GiB/s 24.834 GiB/s 25.128 GiB/s] hyperscan/Medium/1048576 time: [36.109 us 37.559 us 40.516 us] thrpt: [24.103 GiB/s 26.001 GiB/s 27.045 GiB/s] hyperscan/Medium/33554432 time: [2.1737 ms 2.1863 ms 2.1998 ms] thrpt: [14.206 GiB/s 14.293 GiB/s 14.376 GiB/s] hyperscan/Easy0/16 time: [7.6203 ns 7.7540 ns 7.9810 ns] thrpt: [1.8671 GiB/s 1.9217 GiB/s 1.9555 GiB/s] hyperscan/Easy0/32 time: [59.472 ns 60.330 ns 61.681 ns] thrpt: [494.76 MiB/s 505.85 MiB/s 513.14 MiB/s] hyperscan/Easy0/1024 time: [100.62 ns 102.37 ns 105.50 ns] thrpt: [9.0395 GiB/s 9.3161 GiB/s 9.4779 GiB/s] hyperscan/Easy0/32768 time: [1.1906 us 1.1943 us 1.1987 us] thrpt: [25.459 GiB/s 25.552 GiB/s 25.632 GiB/s] hyperscan/Easy0/1048576 time: [36.014 us 36.183 us 36.378 us] thrpt: [26.845 GiB/s 26.990 GiB/s 27.116 GiB/s] hyperscan/Easy0/33554432 time: [2.1796 ms 2.2412 ms 2.3535 ms] thrpt: [13.278 GiB/s 13.943 GiB/s 14.338 GiB/s] hyperscan/Easy1/16 time: [7.5647 ns 7.5955 ns 7.6288 ns] thrpt: [1.9533 GiB/s 1.9618 GiB/s 1.9698 GiB/s] hyperscan/Easy1/32 time: [78.666 ns 79.158 ns 79.806 ns] thrpt: [382.40 MiB/s 385.53 MiB/s 387.94 MiB/s] hyperscan/Easy1/1024 time: [139.51 ns 139.88 ns 140.28 ns] thrpt: [6.7982 GiB/s 6.8179 GiB/s 6.8359 GiB/s] hyperscan/Easy1/32768 time: [1.7645 us 1.8316 us 1.9747 us] thrpt: [15.454 GiB/s 16.661 GiB/s 17.296 GiB/s] hyperscan/Easy1/1048576 time: [54.465 us 54.690 us 54.957 us] thrpt: [17.770 GiB/s 17.856 GiB/s 17.930 GiB/s] hyperscan/Easy1/33554432 time: [2.5835 ms 2.5940 ms 2.6056 ms] thrpt: [11.994 GiB/s 12.047 GiB/s 12.096 GiB/s] hyperscan/Easy0i/16 time: [7.5739 ns 7.5992 ns 7.6260 ns] thrpt: [1.9540 GiB/s 1.9609 GiB/s 1.9674 GiB/s] hyperscan/Easy0i/32 time: [63.005 ns 64.754 ns 67.552 ns] thrpt: [451.77 MiB/s 471.28 MiB/s 484.37 MiB/s] hyperscan/Easy0i/1024 time: [114.28 ns 116.08 ns 118.43 ns] thrpt: [8.0526 GiB/s 8.2157 GiB/s 8.3450 GiB/s] hyperscan/Easy0i/32768 time: [1.3169 us 1.3209 us 1.3256 us] thrpt: [23.022 GiB/s 23.103 GiB/s 23.174 GiB/s] hyperscan/Easy0i/1048576 time: [40.118 us 40.363 us 40.628 us] thrpt: [24.037 GiB/s 24.194 GiB/s 24.342 GiB/s] hyperscan/Easy0i/33554432

```
time: [2.2489 ms 2.2769 ms 2.3150 ms]
             thrpt: [13.499 GiB/s 13.725 GiB/s 13.896 GiB/s]
hyperscan/Hard1/16
                    time: [38.670 ns 40.512 ns 43.454 ns]
             thrpt: [351.15 MiB/s 376.65 MiB/s 394.59 MiB/s]
hyperscan/Hard1/32 time: [40.461 ns 40.692 ns 40.890 ns]
             thrpt: [746.32 MiB/s 749.97 MiB/s 754.24 MiB/s]
hyperscan/Hard1/1024 time: [68.407 ns 68.681 ns 69.002 ns]
             thrpt: [13.821 GiB/s 13.886 GiB/s 13.941 GiB/s]
hyperscan/Hard1/32768 time: [1.0370 us 1.0411 us 1.0455 us]
             thrpt: [29.190 GiB/s 29.314 GiB/s 29.429 GiB/s]
hyperscan/Hard1/1048576 time: [34.754 us 35.279 us 36.310 us]
             thrpt: [26.895 GiB/s 27.681 GiB/s 28.099 GiB/s]
hyperscan/Hard1/33554432
             time: [2.3153 ms 2.3878 ms 2.4730 ms]
             thrpt: [12.637 GiB/s 13.087 GiB/s 13.497 GiB/s]
chimera/Hard/16
                    time: [21.959 ns 22.034 ns 22.121 ns]
             thrpt: [689.79 MiB/s 692.50 MiB/s 694.87 MiB/s]
chimera/Hard/32
                    time: [45.730 ns 45.872 ns 46.046 ns]
             thrpt: [662.76 MiB/s 665.28 MiB/s 667.34 MiB/s]
chimera/Hard/1024
                     time: [116.41 ns 121.81 ns 132.81 ns]
             thrpt: [7.1810 GiB/s 7.8292 GiB/s 8.1923 GiB/s]
chimera/Hard/32768
                     time: [1.2021 us 1.2064 us 1.2124 us]
             thrpt: [25.171 GiB/s 25.296 GiB/s 25.387 GiB/s]
chimera/Hard/1048576 time: [35.805 us 35.916 us 36.050 us]
             thrpt: [27.089 GiB/s 27.190 GiB/s 27.274 GiB/s]
chimera/Hard/33554432 time: [2.2012 ms 2.2206 ms 2.2414 ms]
             thrpt: [13.942 GiB/s 14.073 GiB/s 14.197 GiB/s]
chimera/Medium/16
                      time: [21.899 ns 22.288 ns 23.108 ns]
             thrpt: [660.33 MiB/s 684.63 MiB/s 696.77 MiB/s]
chimera/Medium/32
                      time: [49.151 ns 49.310 ns 49.487 ns]
             thrpt: [616.68 MiB/s 618.89 MiB/s 620.89 MiB/s]
chimera/Medium/1024 time: [128.00 ns 128.48 ns 129.00 ns]
             thrpt: [7.3926 GiB/s 7.4229 GiB/s 7.4505 GiB/s]
chimera/Medium/32768 time: [1.2143 us 1.2178 us 1.2219 us]
             thrpt: [24.976 GiB/s 25.059 GiB/s 25.132 GiB/s]
chimera/Medium/1048576 time: [35.888 us 36.224 us 36.839 us]
             thrpt: [26.509 GiB/s 26.959 GiB/s 27.212 GiB/s]
chimera/Medium/33554432 time: [2.2379 ms 2.2767 ms 2.3200 ms]
             thrpt: [13.470 GiB/s 13.726 GiB/s 13.964 GiB/s]
chimera/Easy0/16
                     time: [22.006 ns 22.074 ns 22.145 ns]
             thrpt: [689.05 MiB/s 691.25 MiB/s 693.40 MiB/s]
chimera/Easy0/32
                    time: [45.707 ns 46.510 ns 47.881 ns]
             thrpt: [637.37 MiB/s 656.15 MiB/s 667.68 MiB/s]
chimera/Easy0/1024
                      time: [116.18 ns 118.38 ns 121.96 ns]
             thrpt: [7.8196 GiB/s 8.0559 GiB/s 8.2085 GiB/s]
chimera/Easy0/32768
                     time: [1.2089 us 1.2149 us 1.2222 us]
             thrpt: [24.970 GiB/s 25.120 GiB/s 25.245 GiB/s]
```

```
chimera/Easy0/1048576 time: [35.747 us 35.839 us 35.949 us]
             thrpt: [27.165 GiB/s 27.248 GiB/s 27.318 GiB/s]
chimera/Easy0/33554432 time: [2.1717 ms 2.1862 ms 2.2021 ms]
             thrpt: [14.191 GiB/s 14.294 GiB/s 14.389 GiB/s]
chimera/Easy1/16
                    time: [21.898 ns 21.957 ns 22.019 ns]
             thrpt: [692.99 MiB/s 694.95 MiB/s 696.80 MiB/s]
chimera/Easy1/32
                    time: [54.226 ns 58.548 ns 63.641 ns]
             thrpt: [479.53 MiB/s 521.24 MiB/s 562.78 MiB/s]
chimera/Easy1/1024 time: [156.46 ns 156.94 ns 157.50 ns]
             thrpt: [6.0551 GiB/s 6.0769 GiB/s 6.0954 GiB/s]
chimera/Easy1/32768 time: [1.9545 us 2.4792 us 3.5112 us]
             thrpt: [8.6914 GiB/s 12.310 GiB/s 15.614 GiB/s]
chimera/Easy1/1048576 time: [61.846 us 80.517 us 107.45 us]
             thrpt: [9.0885 GiB/s 12.129 GiB/s 15.790 GiB/s]
chimera/Easy1/33554432 time: [3.5006 ms 3.8279 ms 4.2312 ms]
             thrpt: [7.3857 GiB/s 8.1637 GiB/s 8.9271 GiB/s]
chimera/Easy0i/16
                    time: [32.880 ns 37.164 ns 42.523 ns]
             thrpt: [358.83 MiB/s 410.58 MiB/s 464.07 MiB/s]
chimera/Easy0i/32
                    time: [56.519 ns 60.221 ns 64.878 ns]
             thrpt: [470.38 MiB/s 506.76 MiB/s 539.95 MiB/s]
chimera/Easy0i/1024 time: [131.94 ns 132.87 ns 133.96 ns]
             thrpt: [7.1191 GiB/s 7.1775 GiB/s 7.2283 GiB/s]
chimera/Easy0i/32768 time: [1.6345 us 1.7481 us 1.9095 us]
             thrpt: [15.982 GiB/s 17.457 GiB/s 18.671 GiB/s]
chimera/Easy0i/1048576 time: [45.820 us 47.466 us 49.573 us]
             thrpt: [19.699 GiB/s 20.574 GiB/s 21.313 GiB/s]
chimera/Easy0i/33554432 time: [2.6227 ms 2.6561 ms 2.6926 ms]
             thrpt: [11.606 GiB/s 11.765 GiB/s 11.915 GiB/s]
chimera/Hard1/16
                     time: [62.354 ns 63.248 ns 64.400 ns]
             thrpt: [236.94 MiB/s 241.25 MiB/s 244.71 MiB/s]
chimera/Hard1/32
                    time: [62.204 ns 64.787 ns 68.518 ns]
             thrpt: [445.39 MiB/s 471.05 MiB/s 490.60 MiB/s]
chimera/Hard1/1024 time: [100.28 ns 107.50 ns 119.79 ns]
             thrpt: [7.9612 GiB/s 8.8711 GiB/s 9.5099 GiB/s]
chimera/Hard1/32768 time: [1.1941 us 1.2423 us 1.3333 us]
             thrpt: [22.889 GiB/s 24.565 GiB/s 25.557 GiB/s]
chimera/Hard1/1048576 time: [40.332 us 41.404 us 42.798 us]
             thrpt: [22.818 GiB/s 23.586 GiB/s 24.213 GiB/s]
chimera/Hard1/33554432 time: [3.0922 ms 3.4004 ms 3.7717 ms]
             thrpt: [8.2854 GiB/s 9.1901 GiB/s 10.106 GiB/s]
regex/Hard/16
                   time: [65.931 ns 67.258 ns 68.895 ns]
             thrpt: [221.48 MiB/s 226.87 MiB/s 231.44 MiB/s]
regex/Hard/32
                   time: [113.10 ns 121.71 ns 132.71 ns]
             thrpt: [229.95 MiB/s 250.73 MiB/s 269.82 MiB/s]
regex/Hard/1024
                    time: [2.1262 us 2.1694 us 2.2317 us]
             thrpt: [437.58 MiB/s 450.16 MiB/s 459.30 MiB/s]
regex/Hard/32768
                     time: [68.672 us 74.051 us 81.856 us]
```

```
regex/Hard/1048576 time: [2.1402 ms 2.1658 ms 2.1936 ms]
             thrpt: [455.86 MiB/s 461.73 MiB/s 467.24 MiB/s]
Benchmarking regex/Hard/33554432: Warming up for 3.0000 s
Warning: Unable to complete 100 samples in 5.0s. You may wish to increase target time to 6.8s, or reduce sample
count to 70.
regex/Hard/33554432 time: [69.916 ms 72.581 ms 76.022 ms]
             thrpt: [420.93 MiB/s 440.88 MiB/s 457.69 MiB/s]
regex/Medium/16
                     time: [39.695 ns 40.709 ns 41.880 ns]
             thrpt: [364.34 MiB/s 374.82 MiB/s 384.40 MiB/s]
regex/Medium/32
                     time: [51.597 ns 51.816 ns 52.057 ns]
             thrpt: [586.23 MiB/s 588.96 MiB/s 591.45 MiB/s]
regex/Medium/1024
                      time: [158.24 ns 162.78 ns 169.19 ns]
             thrpt: [5.6365 GiB/s 5.8587 GiB/s 6.0269 GiB/s]
regex/Medium/32768 time: [3.6467 us 3.7579 us 3.9074 us]
             thrpt: [7.8102 GiB/s 8.1210 GiB/s 8.3685 GiB/s]
regex/Medium/1048576 time: [125.20 us 134.81 us 150.08 us]
             thrpt: [6.5072 GiB/s 7.2439 GiB/s 7.7998 GiB/s]
regex/Medium/33554432 time: [4.6222 ms 4.8445 ms 5.1140 ms]
             thrpt: [6.1106 GiB/s 6.4507 GiB/s 6.7609 GiB/s]
regex/Easy0/16
                   time: [34.249 ns 34.529 ns 34.823 ns]
             thrpt: [438.18 MiB/s 441.91 MiB/s 445.52 MiB/s]
regex/Easy0/32
                   time: [45.272 ns 45.964 ns 46.787 ns]
             thrpt: [652.26 MiB/s 663.95 MiB/s 674.09 MiB/s]
regex/Easy0/1024
                    time: [66.692 ns 67.038 ns 67.416 ns]
             thrpt: [14.146 GiB/s 14.226 GiB/s 14.300 GiB/s]
regex/Easy0/32768
                    time: [1.1983 us 1.2147 us 1.2343 us]
             thrpt: [24.725 GiB/s 25.123 GiB/s 25.467 GiB/s]
regex/Easy0/1048576 time: [43.438 us 44.470 us 45.709 us]
             thrpt: [21.365 GiB/s 21.960 GiB/s 22.482 GiB/s]
regex/Easy0/33554432 time: [2.4127 ms 2.4772 ms 2.5653 ms]
             thrpt: [12.182 GiB/s 12.615 GiB/s 12.952 GiB/s]
regex/Easy1/16
                   time: [50.337 ns 50.917 ns 51.635 ns]
             thrpt: [295.51 MiB/s 299.68 MiB/s 303.14 MiB/s]
regex/Easy1/32
                   time: [50.931 ns 52.127 ns 53.770 ns]
             thrpt: [567.56 MiB/s 585.45 MiB/s 599.20 MiB/s]
regex/Easy1/1024
                    time: [66.875 ns 72.588 ns 79.624 ns]
             thrpt: [11.977 GiB/s 13.138 GiB/s 14.261 GiB/s]
regex/Easy1/32768
                     time: [448.08 ns 489.86 ns 551.24 ns]
             thrpt: [55.361 GiB/s 62.299 GiB/s 68.108 GiB/s]
regex/Easy1/1048576 time: [25.172 us 28.716 us 33.628 us]
             thrpt: [29.040 GiB/s 34.008 GiB/s 38.796 GiB/s]
regex/Easy1/33554432 time: [2.3208 ms 2.4041 ms 2.4967 ms]
             thrpt: [12.517 GiB/s 12.999 GiB/s 13.465 GiB/s]
regex/Easy0i/16
                   time: [59.379 ns 60.330 ns 61.471 ns]
             thrpt: [248.23 MiB/s 252.92 MiB/s 256.97 MiB/s]
regex/Easy0i/32
                    time: [86.053 ns 91.097 ns 98.327 ns]
             thrpt: [310.37 MiB/s 335.00 MiB/s 354.64 MiB/s]
```

thrpt: [381.77 MiB/s 422.01 MiB/s 455.06 MiB/s]

```
regex/Easy0i/1024
                     time: [151.25 ns 152.59 ns 154.10 ns]
             thrpt: [6.1888 GiB/s 6.2499 GiB/s 6.3052 GiB/s]
regex/Easy0i/32768
                     time: [3.6745 us 3.7282 us 3.7843 us]
             thrpt: [8.0642 GiB/s 8.1857 GiB/s 8.3052 GiB/s]
regex/Easy0i/1048576 time: [134.03 us 142.00 us 151.84 us]
             thrpt: [6.4317 GiB/s 6.8774 GiB/s 7.2859 GiB/s]
regex/Easy0i/33554432 time: [4.9993 ms 5.7185 ms 6.6768 ms]
             thrpt: [4.6804 GiB/s 5.4647 GiB/s 6.2509 GiB/s]
regex/Hard1/16
                    time: [56.829 ns 62.347 ns 71.392 ns]
             thrpt: [213.73 MiB/s 244.74 MiB/s 268.51 MiB/s]
regex/Hard1/32
                    time: [99.740 ns 109.86 ns 122.72 ns]
             thrpt: [248.67 MiB/s 277.78 MiB/s 305.97 MiB/s]
regex/Hard1/1024
                   time: [155.81 ns 166.22 ns 181.80 ns]
             thrpt: [5.2458 GiB/s 5.7375 GiB/s 6.1209 GiB/s]
regex/Hard1/32768
                     time: [4.2781 us 4.5519 us 4.9237 us]
             thrpt: [6.1981 GiB/s 6.7044 GiB/s 7.1334 GiB/s]
regex/Hard1/1048576 time: [199.14 us 242.67 us 293.85 us]
             thrpt: [3.3233 GiB/s 4.0243 GiB/s 4.9040 GiB/s]
regex/Hard1/33554432 time: [6.0598 ms 6.6442 ms 7.3072 ms]
             thrpt: [4.2766 GiB/s 4.7034 GiB/s 5.1569 GiB/s]
```

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Found in path(s):

 $*/opt/cola/permits/1579897142_1677736182.1690714/0/flier-rust-hyperscan-v0-3-2-0-ge2471ff-tar-gz/flier-rust-hyperscan-e2471ff/README.md$

1.34 zlib 1.2.11

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1.35 spdlog 1.10.0

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1.36 snafu-derive v0.7.4

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1.37 openssl 1.0.2k

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1.38 crypto-common v0.1.6

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1.39 httpparser 2.9.4

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1.40 yara 4.1.3

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1.41 hashbrown v0.12.3

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1.42 adler v1.0.2

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1.43 bit-vec v0.6.3

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1.45 miniz_oxide v0.6.2

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1.47 libmspack 0.10.1alpha

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1.48 pcre 10.40

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1.50 winapi v0.3.9

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1.51 smallvec v1.10.0

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1.53 atomic v0.5.1

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1.54 minimal-lexical v0.2.1

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`src/bellerophon.rs` is loosely based off the Golang implementation,

found

[here] (https://github.com/golang/go/blob/b10849fbb97a2244c086991b4623ae9f32c212d0/src/strconv/extfloat.go). That code (used if the `compact` feature is enabled) is subject to a subject

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1.59 synstructure v0.12.6

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1.60 ahash v0.7.6

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1.61 salsa v0.9.0

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1.62 bincode v2.0.0-rc.2

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1.63 derive_utils v0.11.2

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1.68 unsafe-libyaml v0.2.5

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1.69 zlib 1.2.12

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* zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.12, March 11th, 2022

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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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1.70 xsalsa20poly1305 v0.8.0

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1.75 darling_core v0.10.2

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1.78 aspect v0.3.0

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1.79 runtime v3.1.0

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1.80 proc-macro-error v1.0.4

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1.81 itoa v1.0.5

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1.84 pest_meta v2.1.3

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1.85 ident case v1.0.1

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1.86 poly1305 v0.7.2

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1.87 sha3 v0.10.6

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A. HISTORY OF THE SOFTWARE

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.

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	Deriv	ed Ye	ar Ow	ner GPL-	
	from		con	npatible? (1)	
0.9.0 thru	1.2	1991	-1995 CW	'I yes	
1.3 thru 1	.5.2 1.2	199	5-1999 CI	NRI 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	5.1 2001	PSF	no	
2.0.1	2.0+1.6	5.1 200	1 PSF	yes	
2.1.1	2.1+2.0	0.1 200	1 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	2002-2	2003 PSF	yes	
2.3.1	2.3	2002-2	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	

2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
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
3.1.3 3.1.4	3.1.2 3.1.3	2010 2011	PSF PSF	yes yes
				•
3.1.4	3.1.3	2011	PSF	yes
3.1.4 3.2	3.1.3 3.1	2011 2011	PSF PSF	yes yes
3.1.4 3.2 3.2.1	3.1.3 3.1 3.2	2011 2011 2011	PSF PSF PSF	yes yes yes

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1.95 thiserror-impl v1.0.38

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1.100 anyhow v1.0.68

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1.101 winapi-util v0.1.5

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1.102 rapidxml 1.13

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1.103 foreign-types v0.5.0

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1.104 walkdir v2.3.2

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1.105 proc-macro2 v1.0.50

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1.110 maplit v1.0.2

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1.111 auto_enums_core v0.7.12

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1.112 zlib 1.2.8

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1.113 aspect-weave v0.2.1

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1.114 darling v0.10.2

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1.116 cfg-if v1.0.0

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1.117 convert_case v0.4.0

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1.118 pest v2.1.3

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1.120 time v0.1.45

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1.127 rand_core v0.6.4

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1.129 cpufeatures v0.2.5

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1.130 bytecheck v0.6.9

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1.131 ptr_meta_derive v0.1.4

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1.134 serde_derive v1.0.152

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1.138 libevent 2.1.7-beta

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1.148 zlib 1.2.7

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1.149 base-64 v0.12.3

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1.150 crypto_box v0.7.2

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1.151 linked-hash-map v0.5.6

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1.152 nghttp2 1.47.0

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1.153 semver v1.0.16

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1.154 block-buffer v0.10.3

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1.159 digest v0.9.0

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1.160 crossbeam-utils v0.8.14

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1.161 synattra v0.2.1

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1.162 malloc_buf v1.0.0

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1.163 capnp v0.13.7

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Dan Burkert: The [initial implementation](https://github.com/dwrensha/capnproto-rust/pull/42) of nonblocking reading and writing.

1.164 capnproto 0.7.0

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1.166 assert_matches v1.3.0

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1.167 zlib 1.2.3

1.167.1 Available under license:

/* zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.11, January 15th, 2017

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1.168 hyperscan-sys v0.3.2

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```
# rust-hyperscan
[![Continuous integration](https://github.com/flier/rust-
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hyperscan/hyperscan/index.html)
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[Hyperscan](https://github.com/intel/hyperscan) is a high-performance regular expression matching library.
## Usage
To use, add the following line to Cargo.toml under [dependencies]:
```toml
hyperscan = "0.3"
Examples
```rust
use hyperscan::prelude::*;
fn main() {
 let pattern = pattern! {"test"; CASELESS | SOM_LEFTMOST};
 let db: BlockDatabase = pattern.build().unwrap();
  let scratch = db.alloc_scratch().unwrap();
  let mut matches = vec![];
  db.scan("some test data", &scratch, |id, from, to, flags| {
    println!("found pattern #{} @ [{}, {})", id, from, to);
    matches.push(from..to);
    Matching::Continue
  }).unwrap();
  assert_eq!(matches, vec![5..9]);
}
```

Features

```
### Hyperscan v5 API
```

Starting with Hyperscan v5.0, several new APIs and flags have been introduced.

`rust-hyperscan` uses the latest version of the API by default, providing new features such as `Literal`.

If you want to work with Hyperscan v4.x, you can disable `v5` feature at compile time.

```
""toml
[dependencies.hyperscan]
version = "0.3"
default-features = false
features = ["full"]
""
```

Chimera API

In order to improve regular expression compatibility, Hyperscan v5.0 starts to provide a PCRE-compatible [Chimera](http://intel.github.io/hyperscan/dev-reference/chimera.html) library.

To enable `Chimera` support, you need to manually download PCRE 8.41 or above, unzip to the source directory of Hyperscan 5.x, compile and install it.

```
"bash
$ cd hyperscan-5.4.0
$ wget https://ftp.pcre.org/pub/pcre/pcre-8.45.tar.gz
$ mkdir pcre
$ tar xvf pcre-8.45.tar.gz --strip-components=1 --directory pcre

$ mkdir build && cd build
$ cmake .. -DCMAKE_INSTALL_PREFIX=`pwd` -DBUILD_STATIC_LIBS=on -G Ninja
$ ninja
$ ninja install
"""
```

Then point to the hyperscan installation directory with the `PKG_CONFIG_PATH` environment variable and enable `chimera` feature.

```
""bash

$ PKG_CONFIG_PATH=<CMAKE_INSTALL_PREFIX>/lib/pkgconfig cargo build
""

The `chimera` feature should be enabled.

""toml
[dependencies]
```

hyperscan = { version = "0.3", features = ["chimera"] }

٠.,

Note: The `Chimera` library does not support dynamic library linking mode, `static` feature is automatically enabled when `chimera` is enabled.

```
### Static Linking Mode
```

As of version 0.2, `rust-hyperscan` uses dynamic library linking mode by default. If you need link a static library, you can use the `static` feature.

```
""toml
[dependencies]
hyperscan = { version = "0.3", features = ["static"] }
""
```

Hyperscan Runtime

Hyperscan provides [a standalone runtime library](http://intel.github.io/hyperscan/dev-reference/serialization.html#the-runtime-library), which can be used separately. If you don't need to compile regular expressions at runtime, you can reduce the size of the executable using `runtime` mode and get rid of C++ dependencies.

```
"toml
[dependencies.hyperscan]
version = "0.3"
default-features = false
features = ["runtime"]
```

Benchmark

To provide a performance comparison, the `Hyperscan`, `Chimera` and `regex` performance testing tools are provided here.

They will use the same test set on different length data.

```
| Level | Pattern |
|------|
|------|
| Easy0 | ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Easy0i | (?i)ABCDEFGHIJklmnopqrstuvwxyz$ |
| Easy1 | A[AB]B[BC]C[CD]D[DE]E[EF]F[FG]G[GH]H[HI]I[IJ]J$ |
| Medium | [XYZ]ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Hard | [ -~]*ABCDEFGHIJKLMNOPQRSTUVWXYZ$ |
| Hard1 | ABCD\|CDEF\|EFGH\|GHIJ\|IJKL\|KLMN\|MNOP\|OPQR\|QRST\|STUV\|UVWX\|WXYZ |
```

You can use the [cargo criterion](https://github.com/bheisler/cargo-criterion) command to run benchmark on your environment.

```
```bash
$ cargo criterion --features chimera
 Finished bench [optimized] target(s) in 0.24s
hyperscan/Hard/16
 time: [7.8000 ns 7.8566 ns 7.9212 ns]
 thrpt: [1.8812 GiB/s 1.8967 GiB/s 1.9104 GiB/s]
hyperscan/Hard/32
 time: [53.495 ns 53.668 ns 53.850 ns]
 thrpt: [566.71 MiB/s 568.64 MiB/s 570.48 MiB/s]
hyperscan/Hard/1024 time: [91.912 ns 95.150 ns 101.64 ns]
 thrpt: [9.3826 GiB/s 10.023 GiB/s 10.376 GiB/s]
hyperscan/Hard/32768 time: [1.1840 us 1.1917 us 1.2015 us]
 thrpt: [25.400 GiB/s 25.608 GiB/s 25.776 GiB/s]
hyperscan/Hard/1048576 time: [35.849 us 35.981 us 36.133 us]
 thrpt: [27.027 GiB/s 27.141 GiB/s 27.241 GiB/s]
hyperscan/Hard/33554432 time: [2.1729 ms 2.1893 ms 2.2075 ms]
 thrpt: [14.156 GiB/s 14.274 GiB/s 14.381 GiB/s]
hyperscan/Medium/16 time: [7.8242 ns 7.9619 ns 8.1801 ns]
 thrpt: [1.8216 GiB/s 1.8716 GiB/s 1.9045 GiB/s]
hyperscan/Medium/32 time: [71.114 ns 71.583 ns 72.090 ns]
 thrpt: [423.33 MiB/s 426.32 MiB/s 429.13 MiB/s]
hyperscan/Medium/1024 time: [110.53 ns 111.09 ns 111.75 ns]
 thrpt: [8.5343 GiB/s 8.5845 GiB/s 8.6280 GiB/s]
hyperscan/Medium/32768 time: [1.2145 us 1.2289 us 1.2502 us]
 thrpt: [24.410 GiB/s 24.834 GiB/s 25.128 GiB/s]
hyperscan/Medium/1048576
 time: [36.109 us 37.559 us 40.516 us]
 thrpt: [24.103 GiB/s 26.001 GiB/s 27.045 GiB/s]
hyperscan/Medium/33554432
 time: [2.1737 ms 2.1863 ms 2.1998 ms]
 thrpt: [14.206 GiB/s 14.293 GiB/s 14.376 GiB/s]
hyperscan/Easy0/16
 time: [7.6203 ns 7.7540 ns 7.9810 ns]
 thrpt: [1.8671 GiB/s 1.9217 GiB/s 1.9555 GiB/s]
 time: [59.472 ns 60.330 ns 61.681 ns]
hyperscan/Easy0/32
 thrpt: [494.76 MiB/s 505.85 MiB/s 513.14 MiB/s]
hyperscan/Easy0/1024 time: [100.62 ns 102.37 ns 105.50 ns]
 thrpt: [9.0395 GiB/s 9.3161 GiB/s 9.4779 GiB/s]
hyperscan/Easy0/32768 time: [1.1906 us 1.1943 us 1.1987 us]
 thrpt: [25.459 GiB/s 25.552 GiB/s 25.632 GiB/s]
hyperscan/Easy0/1048576 time: [36.014 us 36.183 us 36.378 us]
 thrpt: [26.845 GiB/s 26.990 GiB/s 27.116 GiB/s]
hyperscan/Easy0/33554432
 time: [2.1796 ms 2.2412 ms 2.3535 ms]
 thrpt: [13.278 GiB/s 13.943 GiB/s 14.338 GiB/s]
hyperscan/Easy1/16
 time: [7.5647 ns 7.5955 ns 7.6288 ns]
 thrpt: [1.9533 GiB/s 1.9618 GiB/s 1.9698 GiB/s]
hyperscan/Easy1/32
 time: [78.666 ns 79.158 ns 79.806 ns]
 thrpt: [382.40 MiB/s 385.53 MiB/s 387.94 MiB/s]
```

hyperscan/Easy1/1024 time: [139.51 ns 139.88 ns 140.28 ns] thrpt: [6.7982 GiB/s 6.8179 GiB/s 6.8359 GiB/s] hyperscan/Easy1/32768 time: [1.7645 us 1.8316 us 1.9747 us] thrpt: [15.454 GiB/s 16.661 GiB/s 17.296 GiB/s] hyperscan/Easy1/1048576 time: [54.465 us 54.690 us 54.957 us] thrpt: [17.770 GiB/s 17.856 GiB/s 17.930 GiB/s] hyperscan/Easy1/33554432 time: [2.5835 ms 2.5940 ms 2.6056 ms] thrpt: [11.994 GiB/s 12.047 GiB/s 12.096 GiB/s] hyperscan/Easy0i/16 time: [7.5739 ns 7.5992 ns 7.6260 ns] thrpt: [1.9540 GiB/s 1.9609 GiB/s 1.9674 GiB/s] hyperscan/Easy0i/32 time: [63.005 ns 64.754 ns 67.552 ns] thrpt: [451.77 MiB/s 471.28 MiB/s 484.37 MiB/s] hyperscan/Easy0i/1024 time: [114.28 ns 116.08 ns 118.43 ns] thrpt: [8.0526 GiB/s 8.2157 GiB/s 8.3450 GiB/s] hyperscan/Easy0i/32768 time: [1.3169 us 1.3209 us 1.3256 us] thrpt: [23.022 GiB/s 23.103 GiB/s 23.174 GiB/s] hyperscan/Easy0i/1048576 time: [40.118 us 40.363 us 40.628 us] thrpt: [24.037 GiB/s 24.194 GiB/s 24.342 GiB/s] hyperscan/Easy0i/33554432 time: [2.2489 ms 2.2769 ms 2.3150 ms] thrpt: [13.499 GiB/s 13.725 GiB/s 13.896 GiB/s] hyperscan/Hard1/16 time: [38.670 ns 40.512 ns 43.454 ns] thrpt: [351.15 MiB/s 376.65 MiB/s 394.59 MiB/s] hyperscan/Hard1/32 time: [40.461 ns 40.692 ns 40.890 ns] thrpt: [746.32 MiB/s 749.97 MiB/s 754.24 MiB/s] hyperscan/Hard1/1024 time: [68.407 ns 68.681 ns 69.002 ns] thrpt: [13.821 GiB/s 13.886 GiB/s 13.941 GiB/s] hyperscan/Hard1/32768 time: [1.0370 us 1.0411 us 1.0455 us] thrpt: [29.190 GiB/s 29.314 GiB/s 29.429 GiB/s] hyperscan/Hard1/1048576 time: [34.754 us 35.279 us 36.310 us] thrpt: [26.895 GiB/s 27.681 GiB/s 28.099 GiB/s] hyperscan/Hard1/33554432 time: [2.3153 ms 2.3878 ms 2.4730 ms] thrpt: [12.637 GiB/s 13.087 GiB/s 13.497 GiB/s] chimera/Hard/16 time: [21.959 ns 22.034 ns 22.121 ns] thrpt: [689.79 MiB/s 692.50 MiB/s 694.87 MiB/s] chimera/Hard/32 time: [45.730 ns 45.872 ns 46.046 ns] thrpt: [662.76 MiB/s 665.28 MiB/s 667.34 MiB/s] chimera/Hard/1024 time: [116.41 ns 121.81 ns 132.81 ns] thrpt: [7.1810 GiB/s 7.8292 GiB/s 8.1923 GiB/s] chimera/Hard/32768 time: [1.2021 us 1.2064 us 1.2124 us] thrpt: [25.171 GiB/s 25.296 GiB/s 25.387 GiB/s] chimera/Hard/1048576 time: [35.805 us 35.916 us 36.050 us] thrpt: [27.089 GiB/s 27.190 GiB/s 27.274 GiB/s] chimera/Hard/33554432 time: [2.2012 ms 2.2206 ms 2.2414 ms]

```
thrpt: [13.942 GiB/s 14.073 GiB/s 14.197 GiB/s]
chimera/Medium/16
 time: [21.899 ns 22.288 ns 23.108 ns]
 thrpt: [660.33 MiB/s 684.63 MiB/s 696.77 MiB/s]
chimera/Medium/32
 time: [49.151 ns 49.310 ns 49.487 ns]
 thrpt: [616.68 MiB/s 618.89 MiB/s 620.89 MiB/s]
chimera/Medium/1024 time: [128.00 ns 128.48 ns 129.00 ns]
 thrpt: [7.3926 GiB/s 7.4229 GiB/s 7.4505 GiB/s]
chimera/Medium/32768 time: [1.2143 us 1.2178 us 1.2219 us]
 thrpt: [24.976 GiB/s 25.059 GiB/s 25.132 GiB/s]
chimera/Medium/1048576 time: [35.888 us 36.224 us 36.839 us]
 thrpt: [26.509 GiB/s 26.959 GiB/s 27.212 GiB/s]
chimera/Medium/33554432 time: [2.2379 ms 2.2767 ms 2.3200 ms]
 thrpt: [13.470 GiB/s 13.726 GiB/s 13.964 GiB/s]
chimera/Easy0/16
 time: [22.006 ns 22.074 ns 22.145 ns]
 thrpt: [689.05 MiB/s 691.25 MiB/s 693.40 MiB/s]
chimera/Easy0/32
 time: [45.707 ns 46.510 ns 47.881 ns]
 thrpt: [637.37 MiB/s 656.15 MiB/s 667.68 MiB/s]
chimera/Easy0/1024
 time: [116.18 ns 118.38 ns 121.96 ns]
 thrpt: [7.8196 GiB/s 8.0559 GiB/s 8.2085 GiB/s]
chimera/Easy0/32768 time: [1.2089 us 1.2149 us 1.2222 us]
 thrpt: [24.970 GiB/s 25.120 GiB/s 25.245 GiB/s]
chimera/Easy0/1048576 time: [35.747 us 35.839 us 35.949 us]
 thrpt: [27.165 GiB/s 27.248 GiB/s 27.318 GiB/s]
chimera/Easy0/33554432 time: [2.1717 ms 2.1862 ms 2.2021 ms]
 thrpt: [14.191 GiB/s 14.294 GiB/s 14.389 GiB/s]
chimera/Easy1/16
 time: [21.898 ns 21.957 ns 22.019 ns]
 thrpt: [692.99 MiB/s 694.95 MiB/s 696.80 MiB/s]
chimera/Easy1/32
 time: [54.226 ns 58.548 ns 63.641 ns]
 thrpt: [479.53 MiB/s 521.24 MiB/s 562.78 MiB/s]
chimera/Easy1/1024 time: [156.46 ns 156.94 ns 157.50 ns]
 thrpt: [6.0551 GiB/s 6.0769 GiB/s 6.0954 GiB/s]
chimera/Easy1/32768 time: [1.9545 us 2.4792 us 3.5112 us]
 thrpt: [8.6914 GiB/s 12.310 GiB/s 15.614 GiB/s]
chimera/Easy1/1048576 time: [61.846 us 80.517 us 107.45 us]
 thrpt: [9.0885 GiB/s 12.129 GiB/s 15.790 GiB/s]
chimera/Easy1/33554432 time: [3.5006 ms 3.8279 ms 4.2312 ms]
 thrpt: [7.3857 GiB/s 8.1637 GiB/s 8.9271 GiB/s]
chimera/Easy0i/16
 time: [32.880 ns 37.164 ns 42.523 ns]
 thrpt: [358.83 MiB/s 410.58 MiB/s 464.07 MiB/s]
chimera/Easy0i/32
 time: [56.519 ns 60.221 ns 64.878 ns]
 thrpt: [470.38 MiB/s 506.76 MiB/s 539.95 MiB/s]
chimera/Easy0i/1024 time: [131.94 ns 132.87 ns 133.96 ns]
 thrpt: [7.1191 GiB/s 7.1775 GiB/s 7.2283 GiB/s]
chimera/Easy0i/32768 time: [1.6345 us 1.7481 us 1.9095 us]
 thrpt: [15.982 GiB/s 17.457 GiB/s 18.671 GiB/s]
chimera/Easy0i/1048576 time: [45.820 us 47.466 us 49.573 us]
 thrpt: [19.699 GiB/s 20.574 GiB/s 21.313 GiB/s]
chimera/Easy0i/33554432 time: [2.6227 ms 2.6561 ms 2.6926 ms]
```

```
thrpt: [11.606 GiB/s 11.765 GiB/s 11.915 GiB/s]
chimera/Hard1/16
 time: [62.354 ns 63.248 ns 64.400 ns]
 thrpt: [236.94 MiB/s 241.25 MiB/s 244.71 MiB/s]
chimera/Hard1/32
 time: [62.204 ns 64.787 ns 68.518 ns]
 thrpt: [445.39 MiB/s 471.05 MiB/s 490.60 MiB/s]
chimera/Hard1/1024 time: [100.28 ns 107.50 ns 119.79 ns]
 thrpt: [7.9612 GiB/s 8.8711 GiB/s 9.5099 GiB/s]
chimera/Hard1/32768 time: [1.1941 us 1.2423 us 1.3333 us]
 thrpt: [22.889 GiB/s 24.565 GiB/s 25.557 GiB/s]
chimera/Hard1/1048576 time: [40.332 us 41.404 us 42.798 us]
 thrpt: [22.818 GiB/s 23.586 GiB/s 24.213 GiB/s]
chimera/Hard1/33554432 time: [3.0922 ms 3.4004 ms 3.7717 ms]
 thrpt: [8.2854 GiB/s 9.1901 GiB/s 10.106 GiB/s]
regex/Hard/16
 time: [65.931 ns 67.258 ns 68.895 ns]
 thrpt: [221.48 MiB/s 226.87 MiB/s 231.44 MiB/s]
regex/Hard/32
 time: [113.10 ns 121.71 ns 132.71 ns]
 thrpt: [229.95 MiB/s 250.73 MiB/s 269.82 MiB/s]
regex/Hard/1024
 time: [2.1262 us 2.1694 us 2.2317 us]
 thrpt: [437.58 MiB/s 450.16 MiB/s 459.30 MiB/s]
regex/Hard/32768
 time: [68.672 us 74.051 us 81.856 us]
 thrpt: [381.77 MiB/s 422.01 MiB/s 455.06 MiB/s]
regex/Hard/1048576 time: [2.1402 ms 2.1658 ms 2.1936 ms]
 thrpt: [455.86 MiB/s 461.73 MiB/s 467.24 MiB/s]
Benchmarking regex/Hard/33554432: Warming up for 3.0000 s
Warning: Unable to complete 100 samples in 5.0s. You may wish to increase target time to 6.8s, or reduce sample
count to 70.
regex/Hard/33554432 time: [69.916 ms 72.581 ms 76.022 ms]
 thrpt: [420.93 MiB/s 440.88 MiB/s 457.69 MiB/s]
regex/Medium/16
 time: [39.695 ns 40.709 ns 41.880 ns]
 thrpt: [364.34 MiB/s 374.82 MiB/s 384.40 MiB/s]
regex/Medium/32
 time: [51.597 ns 51.816 ns 52.057 ns]
 thrpt: [586.23 MiB/s 588.96 MiB/s 591.45 MiB/s]
regex/Medium/1024
 time: [158.24 ns 162.78 ns 169.19 ns]
 thrpt: [5.6365 GiB/s 5.8587 GiB/s 6.0269 GiB/s]
regex/Medium/32768 time: [3.6467 us 3.7579 us 3.9074 us]
 thrpt: [7.8102 GiB/s 8.1210 GiB/s 8.3685 GiB/s]
regex/Medium/1048576 time: [125.20 us 134.81 us 150.08 us]
 thrpt: [6.5072 GiB/s 7.2439 GiB/s 7.7998 GiB/s]
regex/Medium/33554432 time: [4.6222 ms 4.8445 ms 5.1140 ms]
 thrpt: [6.1106 GiB/s 6.4507 GiB/s 6.7609 GiB/s]
regex/Easy0/16
 time: [34.249 ns 34.529 ns 34.823 ns]
 thrpt: [438.18 MiB/s 441.91 MiB/s 445.52 MiB/s]
regex/Easy0/32
 time: [45.272 ns 45.964 ns 46.787 ns]
 thrpt: [652.26 MiB/s 663.95 MiB/s 674.09 MiB/s]
regex/Easy0/1024
 time: [66.692 ns 67.038 ns 67.416 ns]
 thrpt: [14.146 GiB/s 14.226 GiB/s 14.300 GiB/s]
regex/Easy0/32768
 time: [1.1983 us 1.2147 us 1.2343 us]
```

```
thrpt: [24.725 GiB/s 25.123 GiB/s 25.467 GiB/s]
regex/Easy0/1048576 time: [43.438 us 44.470 us 45.709 us]
 thrpt: [21.365 GiB/s 21.960 GiB/s 22.482 GiB/s]
regex/Easy0/33554432 time: [2.4127 ms 2.4772 ms 2.5653 ms]
 thrpt: [12.182 GiB/s 12.615 GiB/s 12.952 GiB/s]
regex/Easy1/16
 time: [50.337 ns 50.917 ns 51.635 ns]
 thrpt: [295.51 MiB/s 299.68 MiB/s 303.14 MiB/s]
regex/Easy1/32
 time: [50.931 ns 52.127 ns 53.770 ns]
 thrpt: [567.56 MiB/s 585.45 MiB/s 599.20 MiB/s]
regex/Easy1/1024
 time: [66.875 ns 72.588 ns 79.624 ns]
 thrpt: [11.977 GiB/s 13.138 GiB/s 14.261 GiB/s]
regex/Easy1/32768
 time: [448.08 ns 489.86 ns 551.24 ns]
 thrpt: [55.361 GiB/s 62.299 GiB/s 68.108 GiB/s]
regex/Easy1/1048576 time: [25.172 us 28.716 us 33.628 us]
 thrpt: [29.040 GiB/s 34.008 GiB/s 38.796 GiB/s]
regex/Easy1/33554432 time: [2.3208 ms 2.4041 ms 2.4967 ms]
 thrpt: [12.517 GiB/s 12.999 GiB/s 13.465 GiB/s]
regex/Easy0i/16
 time: [59.379 ns 60.330 ns 61.471 ns]
 thrpt: [248.23 MiB/s 252.92 MiB/s 256.97 MiB/s]
regex/Easy0i/32
 time: [86.053 ns 91.097 ns 98.327 ns]
 thrpt: [310.37 MiB/s 335.00 MiB/s 354.64 MiB/s]
regex/Easy0i/1024
 time: [151.25 ns 152.59 ns 154.10 ns]
 thrpt: [6.1888 GiB/s 6.2499 GiB/s 6.3052 GiB/s]
regex/Easy0i/32768
 time: [3.6745 us 3.7282 us 3.7843 us]
 thrpt: [8.0642 GiB/s 8.1857 GiB/s 8.3052 GiB/s]
regex/Easy0i/1048576 time: [134.03 us 142.00 us 151.84 us]
 thrpt: [6.4317 GiB/s 6.8774 GiB/s 7.2859 GiB/s]
regex/Easy0i/33554432 time: [4.9993 ms 5.7185 ms 6.6768 ms]
 thrpt: [4.6804 GiB/s 5.4647 GiB/s 6.2509 GiB/s]
regex/Hard1/16
 time: [56.829 ns 62.347 ns 71.392 ns]
 thrpt: [213.73 MiB/s 244.74 MiB/s 268.51 MiB/s]
regex/Hard1/32
 time: [99.740 ns 109.86 ns 122.72 ns]
 thrpt: [248.67 MiB/s 277.78 MiB/s 305.97 MiB/s]
regex/Hard1/1024\\
 time: [155.81 ns 166.22 ns 181.80 ns]
 thrpt: [5.2458 GiB/s 5.7375 GiB/s 6.1209 GiB/s]
regex/Hard1/32768
 time: [4.2781 us 4.5519 us 4.9237 us]
 thrpt: [6.1981 GiB/s 6.7044 GiB/s 7.1334 GiB/s]
regex/Hard1/1048576 time: [199.14 us 242.67 us 293.85 us]
 thrpt: [3.3233 GiB/s 4.0243 GiB/s 4.9040 GiB/s]
regex/Hard1/33554432 time: [6.0598 ms 6.6442 ms 7.3072 ms]
 thrpt: [4.2766 GiB/s 4.7034 GiB/s 5.1569 GiB/s]
```

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#### Found in path(s):

 $*/opt/cola/permits/1579896911\_1677736219.8168688/0/rust-hyperscan-master-zip/rust-hyperscan-master/README.md$ 

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# 1.177 fnv v1.0.7

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# 1.179 zeroize\_derive v1.3.3

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# 1.180 lazy\_static v1.4.0

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# 1.182 bzip2 1.0.8

# 1.183 yaml-rust v0.4.5

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# 1.184 json-cpp 1.9.3

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# 1.185 generic-array v0.14.6

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# 1.186 universal-hash v0.4.1

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# 1.190 rkyv v0.7.39

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# Contributors

Thanks to all the contributors who have helped document rkyv:

- David Koloski ([djkoloski](https://github.com/djkoloski))

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