

webfonts

subsetting (unicode range, languages)

```
@font-face {  
  font-family: 'UnicodeRange';  
  src: local('Times New Roman');  
  unicode-range: U+0025-00FF;  
}
```

Syntax

```
1  /* <unicode-range> values */  
2  unicode-range: U+26;           /* single codepoint */  
3  unicode-range: U+0-7F;         /* single codepoint */  
4  unicode-range: U+0025-00FF;    /* codepoint range */  
5  unicode-range: U+4??;          /* wildcard range */  
6  unicode-range: U+0025-00FF, U+4??; /* multiple values */
```

<https://developer.mozilla.org/de/docs/Web/CSS/@font-face/unicode-range>

Font unicode-range subsetting - CR

Global

75.53% + 18.77% = 94.3%

This @font-face descriptor defines the set of Unicode codepoints that may be supported by the font face for which it is declared. The descriptor value is a comma-delimited list of Unicode range (<urange>) values. The union of these ranges defines the set of codepoints that serves as a hint for user agents when deciding whether or not to download a font resource for a given text run.

Current aligned	Usage relative	Date relative	Show all						
IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			49		9.3				
			61		10.2				
	15		62	10.1	10.3				4
11	16	57	63	11	11.2	all	62	11.4	6.2
	17	58	64	TP					
		59	65						
		60	66						

Notes

Known issues (2)

Resources (6)

Feedback

Partial support indicates that unnecessary code-ranges are downloaded by the browser - see [browser test matrix](#).

<https://caniuse.com/#feat=font-unicode-range>

Scenario & Expectation	Link	Chrome M38 Win7	Chrome M37 Win7	Firefox 30 Win7	Opera 26 Windows	Safari 7.0.3 (Mac OS X)	WebKit Nightly (r170109)	IE11 Win7	IE11 Win 8.1
				475891		http://wkb.ug/42154		https://github.com/Int	
tracked at:						http://wkb.ug/122851			
<body></body> download nothing	http://jsbin.com/jocodedi/1/quiet	PASS	PASS	PASS	todo	PASS	PASS	PASS	PASS
Text "Hello" download latin	http://jsbin.com/cibalono/1/quiet	PASS	PASS	downloads nothing, render in system font	todo	downloads latin + vietnamese + cyrillic + fallback	downloads latin + vietnamese + cyrillic + fallback	downloads latin + vietnamese + cyrillic + fallback	downloads latin + vietnamese + cyrillic + fallback
Euro sign download fallback	http://jsbin.com/xadaluwo/1/quiet	PASS	downloads latin (superfluous) + fallback	downloads nothing, render in system font	todo	downloads latin + vietnamese + cyrillic + fallback	downloads latin + vietnamese + cyrillic + fallback	downloads latin+vietnamese+cyril lic+fallback	downloads latin+vietnamese+cyril lic+fallback
Text "лич" download cyrillic	http://jsbin.com/muwufefe/3/quiet	PASS	downloads latin (superfluous) + cyrillic	downloads nothing, render in system font	PASS	downloads latin + cyrillic	downloads latin + cyrillic	downloads latin + cyrillic	downloads latin + cyrillic
Euro sign, no fallback font download nothing	http://jsbin.com/dopacilo/1/quiet	downloads latin (superfluous), renders the € in system font	downloads latin (superfluous), renders the € in system font	downloads nothing, render in system font	todo	downloads latin + vietnamese + cyrillic	downloads latin + vietnamese + cyrillic	downloads latin+vietnamese+cyril lic	downloads latin+vietnamese+cyril lic

<https://docs.google.com/spreadsheets/d/18h-1gaosu4-KYxH8JUNL6ZDuOsOKmWfauoai3CS3hPY>

- separate font-weights
- separate font-styles
- use woff and woff2

```
/* rubik-regular - latin */
@font-face {
  font-family: 'Rubik';
  font-style: normal;
  font-weight: 400;
  src: url('fonts/rubik-v7-latin-regular.woff2') format('woff2'), /* Chrome 26+, Op
  url('fonts/rubik-v7-latin-regular.woff') format('woff'); /* Chrome 6+, Firefox 3.
}
/* rubik-italic - latin */
@font-face {
  font-family: 'Rubik';
  font-style: italic;
  font-weight: 400;
  src: url('fonts/rubik-v7-latin-italic.woff2') format('woff2'), /* Chrome 26+, Ope
  url('fonts/rubik-v7-latin-italic.woff') format('woff'); /* Chrome 6+, Firefox 3.6
```


compress (zopfli)

use similar fallback fonts

<http://www.identifont.com/similar.html>

```
.serif {  
  font-family: Times, Times New Roman, Georgia, serif;  
}  
  
.sansserif {  
  font-family: Verdana, Arial, Helvetica, sans-serif;  
}  
  
.monospace {  
  font-family: Lucida Console, Courier, monospace;  
}
```

<https://developer.mozilla.org/en-US/docs/Web/CSS/font-family>

preload / prefetch

```
<link rel="preload" href="font.woff2" as="font" type="font/woff2">  
<link rel="dns-prefetch" href="https://fonts.googleapis.com/">
```

- proper caching
- beware, CDNs can be offline (add a fallback)
- watch out for FOIT (flash of invisible text)
- watch out for FOUT (flash of unstyled text)
- avoid usage of Web Font Loader / JS

use TypeKit advanced embed code

```
<script src="https://use.typekit.net/xxxxxxx.js" async=""></script><script>
(function(d) {
  var config = {
    kitId: 'xxxxxxx',
    scriptTimeout: 3000,
    async: true
  },
  h=d.documentElement,t=setTimeout(function(){h.className=h.className.replace(/\b
  })(document);
</script>
```

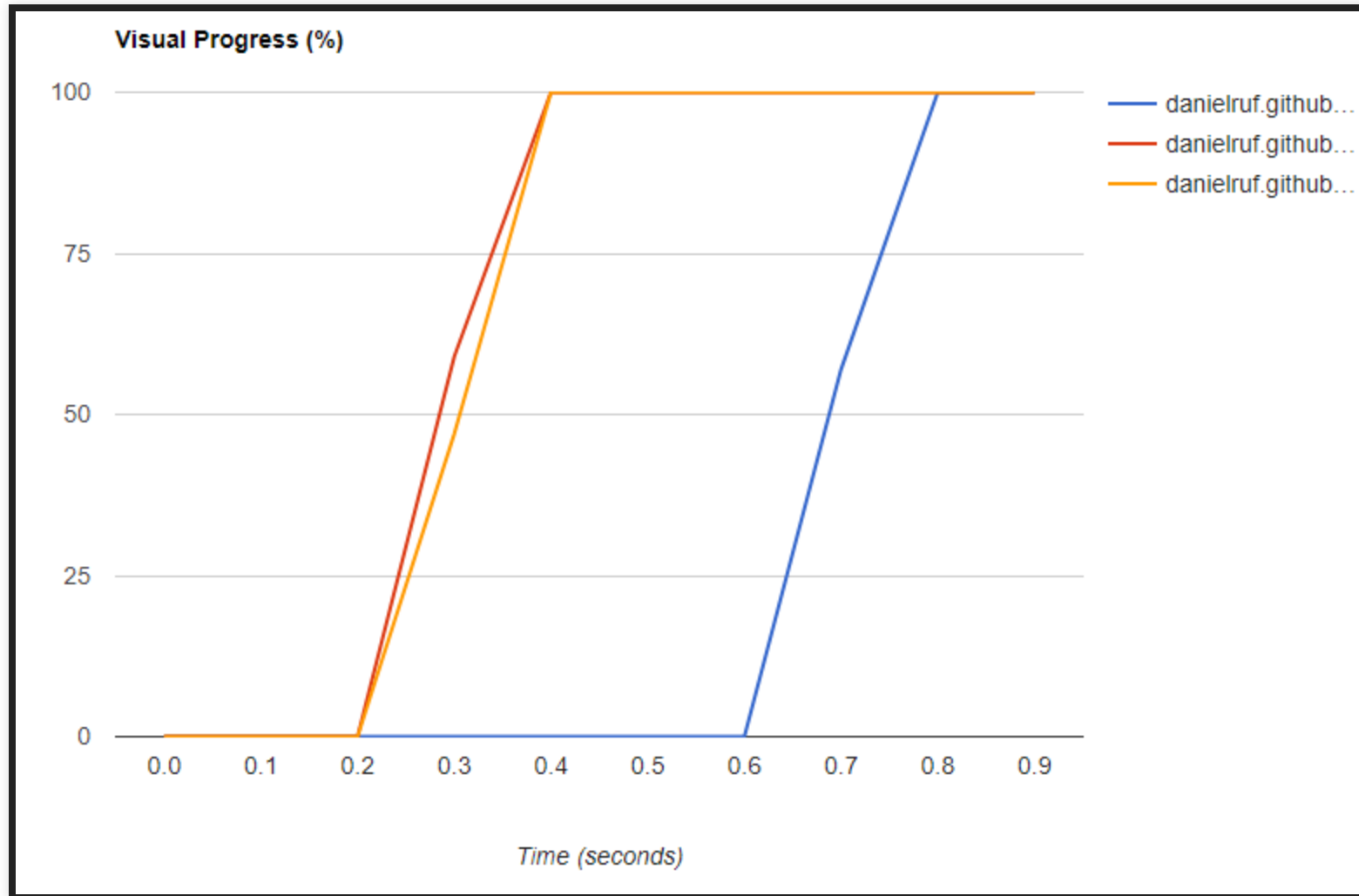
<https://helpx.adobe.com/typekit/using/embed-codes.html>

- prefer inline CSS
- better CRP
- prevents FOIT and FOUT

<https://varvy.com/pagespeed/critical-render-path.html>

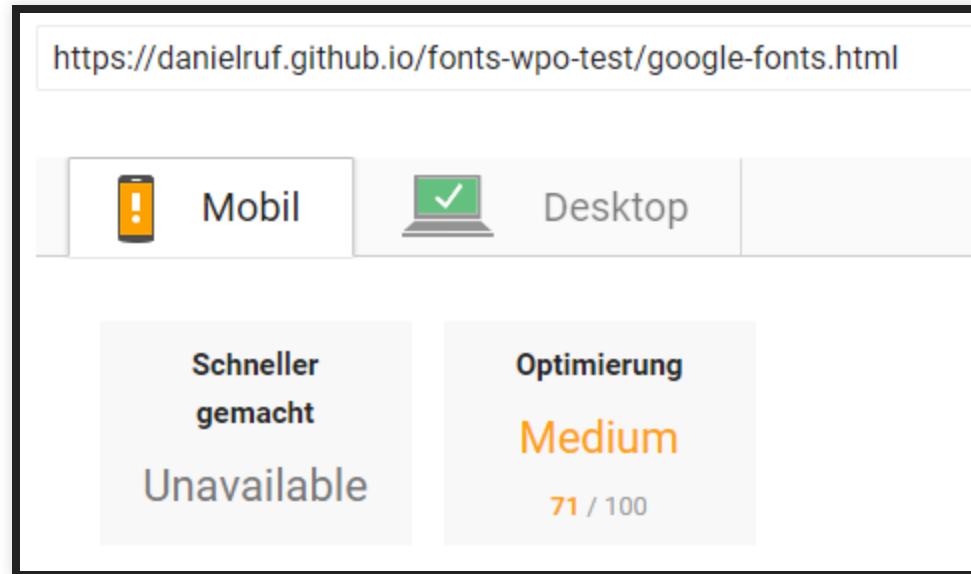
<https://developers.google.com/web/fundamentals/performance/critical-rendering-path>

host locally

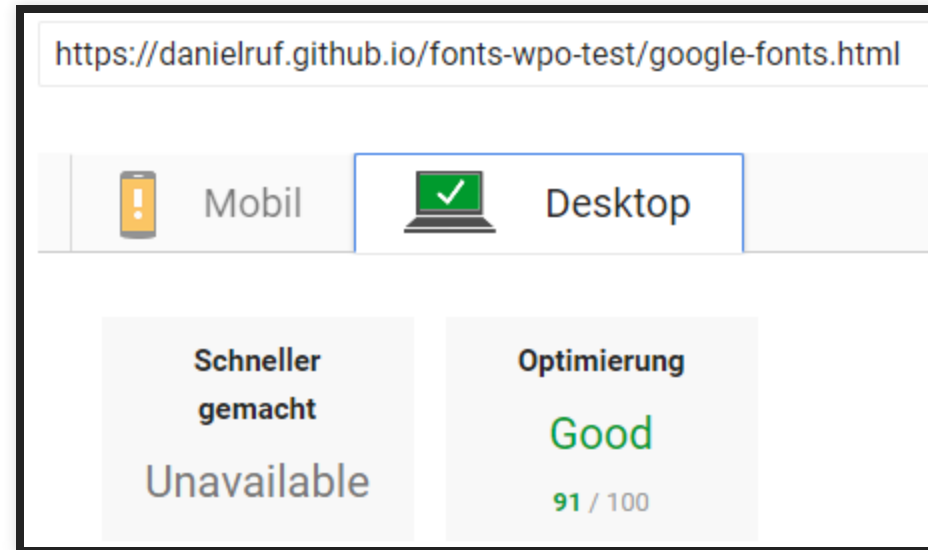


[https://www.webpagetest.org/video/compare.php?](https://www.webpagetest.org/video/compare.php?tests=180121_CX_e21373feaf8c9ee9734eec8741ee6d37,180121_ZT_970b5f76f9c98ed9ae4909d9c0c1c768,180121_N2_a40)

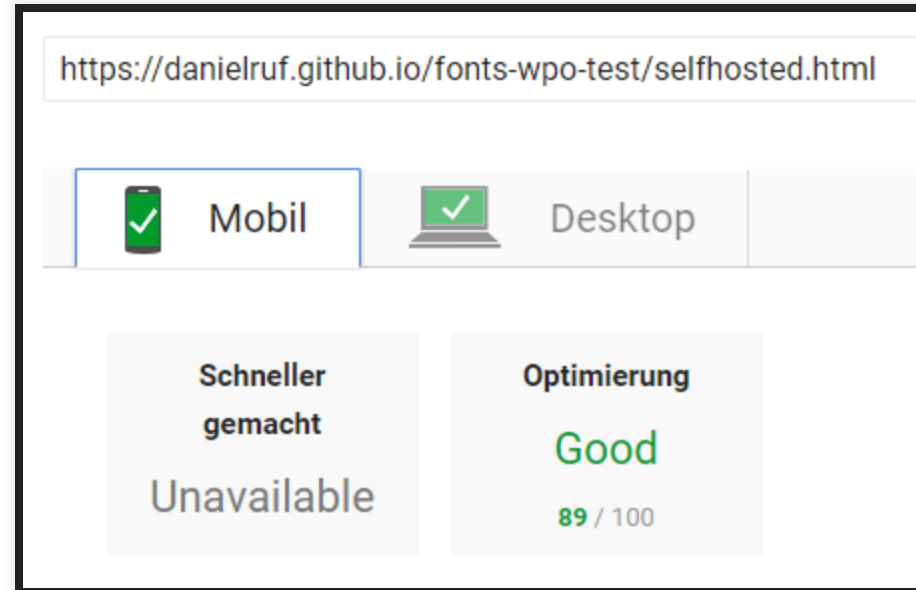
tests=180121_CX_e21373feaf8c9ee9734eec8741ee6d37,180121_ZT_970b5f76f9c98ed9ae4909d9c0c1c768,180121_N2_a40



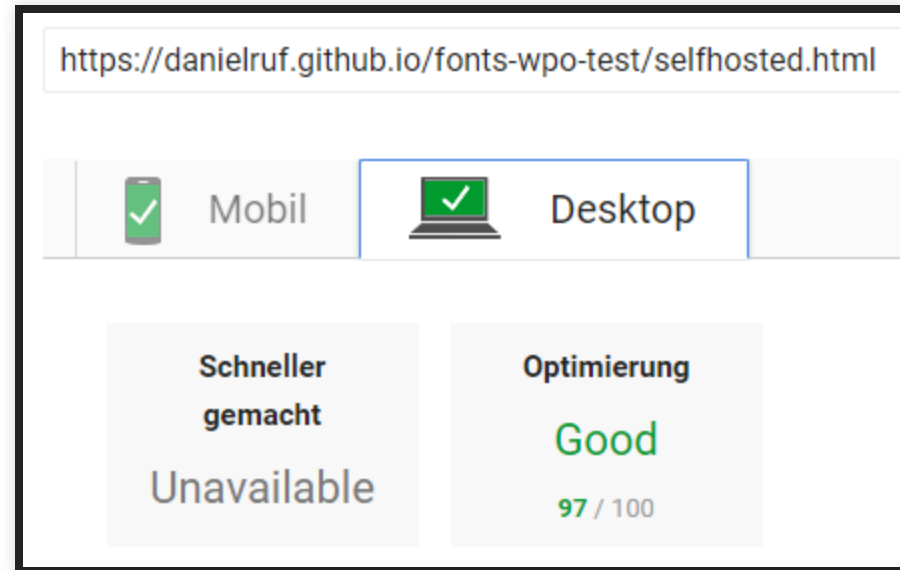
<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fgoogle-fonts.html>



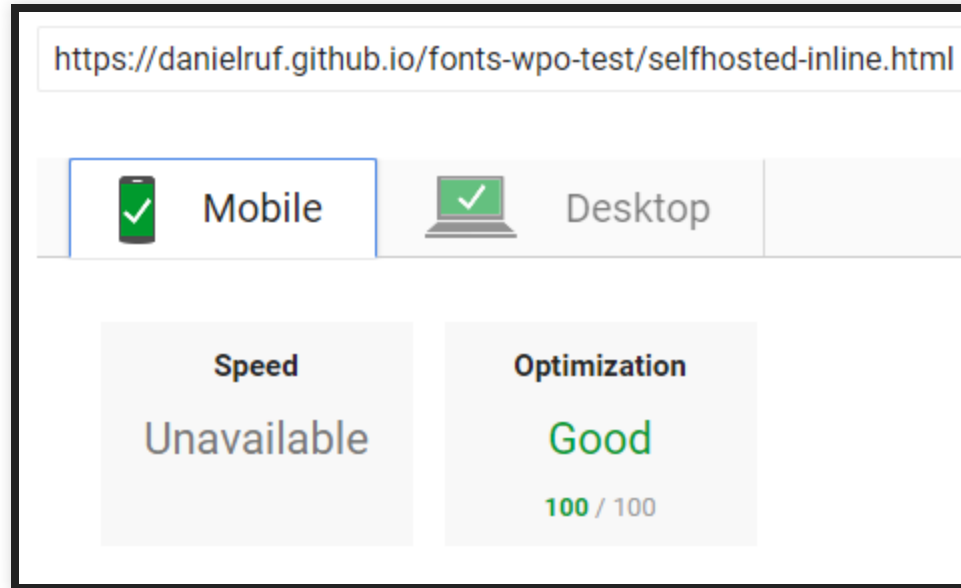
<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fgoogle-fonts.html>



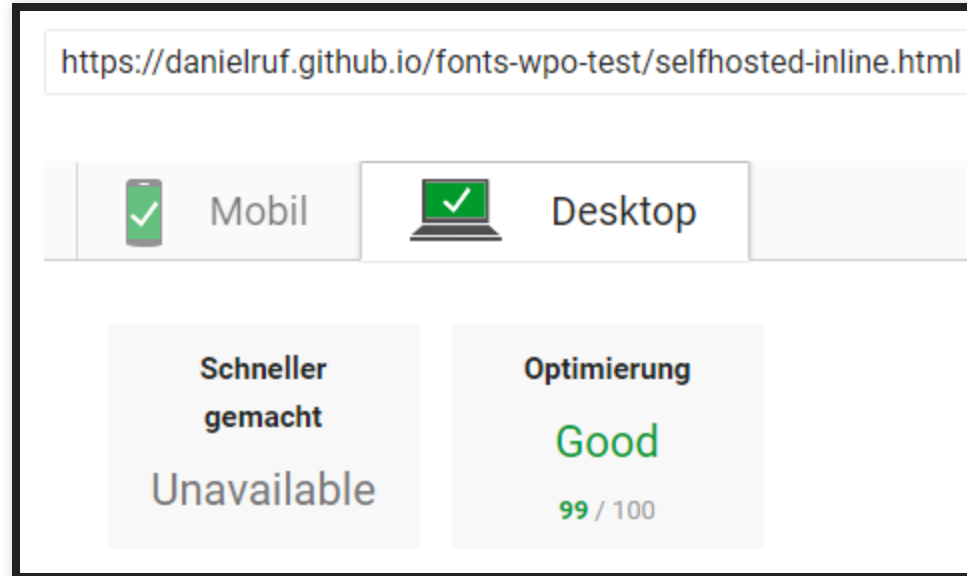
<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fselfhosted.html>



<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fselfhosted.html>



<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fselfhosted-inline.html>



<https://developers.google.com/speed/pagespeed/insights/?url=https%3A%2F%2Fdanielruf.github.io%2Ffonts-wpo-test%2Fselfhosted-inline.html>

[https://google-webfonts-helper.herokuapp.com/fonts
majodev/google-webfonts-helper](https://google-webfonts-helper.herokuapp.com/fonts/majodev/google-webfonts-helper)

Pagespeed:

1. Use no web font
2. Inlined HTML fonts
3. Inlined CSS fonts
4. Self hosted fonts
5. Third party fonts

<https://varvy.com/pagespeed/web-font-options.html>

<https://www.zachleat.com/web/comprehensive-webfonts>

<https://varvy.com/pagespeed/web-font-options.html>

<https://developers.google.com/web/fundamentals/performance/optimizing-content-efficiency/webfont-optimization>