# How to host google web fonts on my own server?

Asked 8 years, 6 months ago    Active 5 months ago    Viewed 188k times

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**270**

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115

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I need to use some google fonts on an intranet application. The clients may or may not have internet connection. Reading the license terms, it appears that its legally allowed.

fonts        google-font-api

| edited Oct 21 '14 at 15:35 | asked Jan 23 '12 at 2:52 |
|---|---|
| k0pernikus | Samarth Bhargava |
| **34.2k**  39  151  257 | **3,902**  3  12  14 |

---

6    What I understand is that its not as simple as downloading one file and saving it. Each browser supports a different font format and google does not provide a direct and easy way to get all necessary files so that the font works correctly in all browsers. – Samarth Bhargava  Jan 23 '12 at 3:32

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1    You get all the URIs from the linked stylesheet. – fuxia  Jan 23 '12 at 3:34

---

38   Yes, I can figure all the details myself, or I can ask a question to see if any one has done it before and has experiences and scripts to share – Samarth Bhargava  Jan 23 '12 at 3:43

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2    Well, google returns different answers in `fonts.googleapis.com/css?` based depending on your UA headers (read: your browser) → So they deliver only, what the current browser needs. If one wants to get all fonts needed (or even just the urls), you will need multiple loads of the css file from diferent browers resp. with different forged headers, to get all that's needed. – Frank Nocke  Apr 19 '16 at 12:54

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Use this tool: npmjs.com/package/font-ranger – Do Async  Jun 26 '18 at 22:36  ✏️

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## 17 Answers

| Active | Oldest | Votes |
|---|---|---|

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**218**

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Please keep in mind that my answer has aged a lot.

There are other more technically sophisticated answers below, e.g.:

- neverpanic/google-font-download
- google-webfont-helper
- ~~localfont~~

so don't let the fact that this is the currently accepted answer give you the impression that this is still the best one.

You can also now also download google's entire font set via on github at their google/font repository. They also provide a ~420MB zip snapshot of their fonts.

You first download your font selection as a zipped package, providing you with a bunch of true type fonts. Copy them somewhere public, somewhere you can link to from your css.

---

```
http://fonts.googleapis.com/css?family=Cantarell:400,700,400italic,700italic|Candal
```

It links to a CSS defining the fonts via a bunch of `@font-face` defintions.

Open it in a browser to copy and paste them into your own CSS and modify the urls to include the right font file and format types.

So this:

```
@font-face {
  font-family: 'Cantarell';
  font-style: normal;
  font-weight: 700;
  src: local('Cantarell Bold'), local('Cantarell-Bold'),
url(http://themes.googleusercontent.com/static/fonts/cantarell/v3/Yir4ZDsCn4g1kWopdg-
ehHhCUOGz7vYGh680lGh-uXM.woff) format('woff');
}
```

becomes this:

```
/* Your local CSS File */
@font-face {
    font-family: 'Cantarell';
    font-style: normal;
    font-weight: 700;
    src: local('Cantarell Bold'), local('Cantarell-Bold'), url(../font/Cantarell-
Bold.ttf) format('truetype');
}
```

As you can see, a downside of hosting the fonts on your own system this way is, that you restrict yourself to the true type format, whilst the google webfont service determines by the accessing device which formats will be transmitted.

Furthermore, I had to add a `.htaccess` file to my the directory holding the fonts containing mime types to avoid errors from popping up in Chrome Dev Tools.

For this solution, only true type is needed, but defining more does not hurt when you want to include different fonts as well, like `font-awesome`.

```
#.htaccess
AddType application/vnd.ms-fontobject .eot
AddType font/ttf .ttf
AddType font/otf .otf
AddType application/x-font-woff .woff
```

edited Nov 26 '19 at 1:52                              answered Nov 2 '12 at 15:02

                                                        k0pernikus
                                                        **34.2k**   39   151   257

---

37    You're not restricted to TrueType, you just need to download the .woff files as well, ie. put 'http:
      //themes.googleusercontent.com/static/fonts/cantarell/v3/...80lGh-uXM.woff' into your web browser,
      save it as '/fonts/Cantarell-Bold.woff' and update the css to match (url('/fonts/Canterell-Bold.woff')) –
      Anthony Briggs Oct 3 '13 at 5:52

2     There's a reason why Google provides several font formats - TrueType doesn't work on old browsers.

---

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3    The file changes content depending on the browser being used. – Krii Apr 28 '15 at 2:56

3    This response is more complex to deploy than the alternatives listed below; it is also technically
     incorrect in several respects (no limitation to TTF, TTF is a bad idea, this will yield different results per
     browser, you can't host fonts anywhere public since same-origin applies). Please don't do that, use one
     of the other answers below. – Robin Berjon Oct 29 '15 at 16:33

▲

202    ~~There is a tool localfont.com to help you download all font variants. It as well generates the
       corresponding CSS for implementation.~~ *deprecated*

       localfont is down. Instead, as Damir suggests, you can use google-webfonts-helper

▼

|  | edited Sep 7 '18 at 1:10 | answered Feb 12 '15 at 8:01 |
|---|---|---|
|  | KyleMit | udondan |
|  | 58.8k   46   321   490 | 43.5k   12   159   156 |

Although fantastic, when you happen to need other language versions of your font, you have to find
another solution – anges244 Feb 5 '16 at 21:22

What about different character sets? – vitro Jul 14 '16 at 8:44

1    Here google developer says **self hosting Google fonts has its own disadvantages** , instead check
     these tips to use google font CDN and increase page speed. – shaijut Nov 20 '16 at 11:41

@PauloCoghi The tool may report that the website is reachable but clearly there is something wrong
since I and many others are unable to view it. – Lawyerson Sep 8 '17 at 9:56

▲

148    Great solution is google-webfonts-helper .

       It allows you to select more than one font variant, which saves a lot of time.

▼

|  | edited Mar 7 '16 at 23:59 | answered Aug 4 '15 at 5:54 |
|---|---|---|
|  | k0pernikus | Damir Bulic |
|  | 34.2k   39   151   257 | 2,039   1   14   7 |

Great tools! I love it. You can see the font preview and download all required files by one click. –
cuixiping Aug 24 '15 at 3:43

Very nice tool. Works very well and allows to download `latin-ext` fonts too. – piotrekkr Mar 7 '16 at
21:04

3    This is the best option. It does everything, you can even specify font folder prefix. – Maciej Krawczyk
     Jun 13 '16 at 17:11

▲

63    I wrote a bash script that fetches the CSS file on Google's servers with different user agents,
      downloads the different font formats to a local directory and writes a CSS file including them.
      Note that the script needs Bash version 4.x.

▼    See https://neverpanic.de/blog/2014/03/19/downloading-google-web-fonts-for-local-hosting/
     for the script (I'm not reproducing it here so I only have to update it in one place when I need

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answered Apr 19 '14 at 18:50

neverpanic
**2,601**    13    25

4    This is more then awesome! (I hope it works well not tested yet). I searched for something like this form time to time over years. No kidding, I even started to write my own script that is far from complete. Its mind blowing that so few people tend to want this. Google is hiding this fonts behind generated strings and does no open source the actually webfont files in the repo only the ttf. They want us to use their fonts, they want us to use their servers because they abuse this for tracking people. And even the most privacy aware people embed the fonts from googles server. – redanimalwar Feb 17 '15 at 1:54

1    My only concern is the actual font licenses, not really closely studied them. All I know is that font licenses differ from GPL or MIT. So are we actually legally allowed to catch this fonts from the Google servers and serv them on our own? Again I not believe for a minute that Google is giving all this fonts away just for the sake of making the world better, they actually pay devs to produce open fonts for them so they for sure have gain something, data lots of data. And if its not privacy your up to, you can test this fonts locally without Internet this way. – redanimalwar Feb 17 '15 at 1:59 ✎

2    This answer should be upvoted more, because this script can downloads all fonts formats and subsets in contrast to localfont.com. – piotrekkr Feb 14 '16 at 12:15

I know you will take me as a lazy person, but as an average windows user, it sucks to have to compile it and etc to be able to use it... – Lucas Bustamante Aug 14 '16 at 9:30 ✎

@LucasB There is no compiling involved. It's a bash script. I know Windows doesn't come with Bash, but feel free to re-implement this in a way that supports Windows. It was just not part of my use-case, so I didn't spend any time on it. – neverpanic Aug 17 '16 at 10:08 ✎

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**14**    The contents of the CSS file (from the include URL) depends on what browser I view it from. For example, when browsing to http://fonts.googleapis.com/css?family=Open+Sans using Chrome, the file only contained WOFF links. Using Internet Explorer (below), it included both EOT and WOFF. I pasted all the links into my browser to download them.

```
@font-face {
  font-family: 'Open Sans';
  font-style: normal;
  font-weight: 400;
  src:
url(http://themes.googleusercontent.com/static/fonts/opensans/v6/cJZKeOuBrn4kERxqtaUH3fY63

  src: local('Open Sans'), local('OpenSans'),
url(http://themes.googleusercontent.com/static/fonts/opensans/v6/cJZKeOuBrn4kERxqtaUH3fY63
 format('embedded-opentype'),
url(http://themes.googleusercontent.com/static/fonts/opensans/v6/cJZKeOuBrn4kERxqtaUH3T8E0
EPnyo3HZu7kw.woff) format('woff');
}
```

When you host your own web fonts, you need to correctly link to each font type, deal with legacy browser bugs, etc. When you use Google Web Fonts (hosted by Google), Google automatically links to the correct font types for that browser.

answered Nov 22 '13 at 22:03

Michael McGinnis
**699**    7    24

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2    So I will need to smartly serve the browser with different format then. I know this is highly discouraged but we are serving our page to some China clients and it's the main reason we want to host it. They blocked most google resources. – Lionel Chan Feb 25 '15 at 1:37

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It is legally allowed as long as you stick to the terms of the font's license - usually the OFL.

You'll need a set of web font formats, and the Font Squirrel Webfont Generator can produce these.

But the OFL required the fonts be renamed if they are modified, and using the generator means modifying them.

edited Jan 5 '16 at 8:59              answered Jan 28 '12 at 0:48

Ryan                                davelab6
**2,444**   2   18   28              **317**   1   5

Or, depending on the typeface, you can simply get the Webfont kit directly from the font squirrel. fontsquirrel.com/fonts/open-sans – Jack Frost Aug 29 '14 at 16:48

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I have a script written in PHP similar to that of @neverpanic that automatically downloads both the CSS and fonts (**both hinted and unhinted**) from Google. It then serves the correct CSS and fonts from your own server based on the User Agent. It keeps its own cache, so fonts and CSS of a User Agent will only be downloaded once.

It's in a premature stage, but it can be found here: DaAwesomeP / php-offline-fonts

edited May 23 '17 at 11:47              answered Apr 20 '14 at 2:46

Community ♦                            DaAwesomeP
**1**   1                              **565**   5   17

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As you want to host all fonts (or some of them) at your own server, you a download fonts from this repo and use it the way you want: https://github.com/praisedpk/Local-Google-Fonts

If you just want to do this to fix the leverage browser caching issue that comes with Google Fonts, you can use alternative fonts CDN, and include fonts as:

```
<link href="https://pagecdn.io/lib/easyfonts/fonts.css" rel="stylesheet" />
```

Or a specific font, as:

```
<link href="https://pagecdn.io/lib/easyfonts/lato.css" rel="stylesheet" />
```

edited Oct 30 '19 at 10:08              answered Mar 23 '17 at 16:14

Hamid Sarfraz
**978**   1   11   30

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**1**

```javascript
module.exports = function(grunt) {

    grunt.initConfig({
        pkg: grunt.file.readJSON('package.json'),

        "local-googlefont" : {
            "opensans" : {
                "options" : {
                    "family" : "Open Sans",
                    "sizes" : [
                        300,
                        400,
                        600
                    ],
                    "userAgents" : [
                        "Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 6.0)",
    //download eot
                        "Mozilla/5.0 (Linux; U; Android 4.1.2; nl-nl; GT-I9300
    Build/JZO54K) AppleWebKit/534.30 (KHTML, like Gecko) Version/4.0 Mobile Safari/534.30",
    //download ttf
                        "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_9_2)
    AppleWebKit/537.36 (KHTML, like Gecko) Chrome/35.0.1944.0 Safari/537.36" //download woff
    and woff2
                    ],
                    "cssDestination" : "build/fonts/css",
                    "fontDestination" : "build/fonts",
                    "styleSheetExtension" : "css",
                    "fontDestinationCssPrefix" : "fonts"

                }
            }
        }
    });

    grunt.loadNpmTasks('grunt-local-googlefont');
};
```

Then, to retrieve them:

```
grunt local-googlefont:opensans
```

Note, I'm using a fork from the original, which works better when retrieving fonts with whitespaces in their names.

answered Dec 10 '15 at 14:27

Hank
**4,070**   5   35   74

---

**1**

You can actually download all font format variants directly from Google and include them in your css to serve from your server. That way you don't have to concern about Google tracking your site's users. However, the downside maybe slowing down your own serving speed. Fonts are quite demanding on resources. I have not done any tests in this issue yet, and wonder if anyone has similar thoughts.

answered Feb 25 '16 at 10:52

Flyhead
**19**   1

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**1**

My solution was to download the TTF files from google web fonts and then use onlinefontconverter.com.

edited Jan 16 '17 at 13:34          answered Mar 31 '16 at 23:34

**k0pernikus**                      **Adam Youngers**

**34.2k**   39   151   257          **4,659**   6   28   42

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**1**

I made a tiny PHP script to get download links from a Google Fonts CSS import URL like: https://fonts.googleapis.com/css?family=Roboto:400,700|Slabo+27px|Lato:400,300italic,900italic

You can use this tool here: http://nikoskip.me/gfonts.php

For instance, if you use the above import URL, you will get this:

**woff2**

| Lato Regular | Lato Light Italic | Lato Black Italic | Roboto | Roboto Bold | Slabo 27px |

**woff**

| Lato Regular | Lato Light Italic | Lato Black Italic | Roboto | Roboto Bold | Slabo 27px |

**ttf**

| Lato | Roboto | Slabo 27px |

**svg**

| Lato Regular | Roboto | Slabo 27px |

**eot**

| Lato | Roboto | Slabo 27px |

answered Feb 2 '17 at 17:49

**nikoskip**

**1,669**   18   34

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**1**

If you're using Webpack, you might be interested in this project: https://github.com/KyleAMathews/typefaces

E.g. say you want to use Roboto font:

```
npm install typeface-roboto --save
```

Then just import it in your app's entrypoint (main js file):

```
import 'typeface-roboto'
```

answered Dec 31 '17 at 15:59

**justin**

**2,045**   16   24

---

**1**  You can download the source code from the GitHub https://github.com/sourav101/google-fonts-downloader

```php
$obj = new GoogleFontsDownloader;

if(isset($_GET['url']) && !empty($_GET['url']))
{
    $obj->generate($_GET['url']);
}

if(isset($_GET['download']) && !empty($_GET['download']) && $_GET['download']=='true')
{
    $obj->download();
}



/**
 * GoogleFontsDownloader
 * Easy way to download any google fonts.
 * @author      Shohrab Hossain
 * @version     1.0.0
 */
class GoogleFontsDownloader
{
    private $url        = '';
    private $dir        = 'dist/';
    private $fontsDir = 'fonts/';
    private $cssDir   = 'css/';
    private $fileName = 'fonts.css';
    private $content  = '';
    private $errors   = '';
    private $success  = '';
    public  $is_downloadable  = false;

    public function __construct()
    {
        ini_set('allow_url_fopen', 'on');
        ini_set('allow_url_include', 'on');
    }

    public function generate($url = null)
    {
        if (filter_var($url, FILTER_VALIDATE_URL) === FALSE)
        {
            $this->errors .= "<li><strong>Invalid url!</strong> $url</li>";
        }
        else
        {
            $this->url = $url;
            // delete previous files
            $this->_destroy();
            // write font.css
            $this->_css();
            // write fonts
            $this->_fonts();
            // archive files
            $this->_archive();
        }
        // show all messages
        $this->_message();
    }

    public function download()
```

```php
        if (file_exists($zipFileName))
        {
            header("Content-type: application/zip");
            header("Content-Disposition: attachment; filename = $zipFileName");
            header("Pragma: no-cache");
            header("Expires: 0");
            readfile("$zipFileName");

            // delete file
            unlink($zipFileName);
            array_map('unlink', glob("$this->dir/*.*"));
            rmdir($this->dir);

        }
    }

    private function _archive()
    {
        if (is_dir($this->dir))
        {
            $zipFileName = trim($this->dir, '/').'.zip';
            $zip = new \ZipArchive();
            if ($zip->open($zipFileName, ZipArchive::CREATE) === TRUE)
            {
                $zip->addGlob($this->dir. "*.*");
                $zip->addGlob($this->dir. "*/*.*");
                if ($zip->status == ZIPARCHIVE::ER_OK)
                {
                    $this->success .= '<li>Zip create successful!</li>';
                    $this->is_downloadable = true;
                }
                else
                {
                    $this->errors .= '<li>Failed to create to zip</li>';
                }
            }
            else
            {
                $this->errors .= '<li>ZipArchive not found!</li>';
            }
            $zip->close();
        }
        else
        {
            $this->errors .= "<li><strong>File</strong> not exists!</li>";
        }
    }

    private function _css()
    {
        $filePath = $this->dir.$this->cssDir.$this->fileName;
        $content  = $this->_request($this->url);
        if (!empty($content))
        {
            if (file_put_contents($filePath, $content))
            {
                $this->success .= "<li>$this->fileName generated successful!</li>";
                $this->content = $content;
            }
            else
            {
                $this->errors .= '<li>Permission errro in $this->fileName! Unable to
write $filePath.</li>';
            }
        }
        else
```

```php
        }

        private function _fonts()
        {
            if (!empty($this->content))
            {
                preg_match_all('#\bhttps?://[^\s()<>]+(?:\(([\w\d]+\))|([^[:punct:]\s]|/))#',
    $this->content, $match);
                $gFontPaths = $match[0];
                if (!empty($gFontPaths) && is_array($gFontPaths) && sizeof($gFontPaths)>0)
                {
                    $count = 0;
                    foreach ($gFontPaths as $url)
                    {
                        $name     = basename($url);
                        $filePath = $this->dir.$this->fontsDir.$name;
                        $this->content = str_replace($url, '../'.$this->fontsDir.$name,
    $this->content);

                        $fontContent  = $this->_request($url);
                        if (!empty($fontContent))
                        {
                            file_put_contents($filePath, $fontContent);
                            $count++;
                            $this->success .= "<li>The font $name downloaded!</li>";
                        }
                        else
                        {
                            $this->errors .= "<li>Unable to download the font $name!</li>";
                        }
                    }

                    file_put_contents($this->dir.$this->cssDir.$this->fileName, $this-
    >content);

                    $this->success .= "<li>Total $count font(s) downloaded!</li>";
                }
            }
        }

        private function _request($url)
        {
            $ch = curl_init();
            curl_setopt_array($ch, array(
                CURLOPT_SSL_VERIFYPEER => FALSE,
                CURLOPT_HEADER         => FALSE,
                CURLOPT_FOLLOWLOCATION => TRUE,
                CURLOPT_URL            => $url,
                CURLOPT_REFERER        => $url,
                CURLOPT_RETURNTRANSFER => TRUE,
            ));
            $result = curl_exec($ch);
            curl_close($ch);

            if (!empty($result))
            {
                return $result;
            }
            return false;
        }

        private function _destroy()
        {
            $cssPath = $this->dir.$this->cssDir.$this->fileName;
            if (file_exists($cssPath) && is_file($cssPath))
            {
                unlink($cssPath);
```

```
            mkdir($this->dir.$this->cssDir, 0777, true);
        }

        $fontsPath = $this->dir.$this->fontsDir;
        if (!is_dir($fontsPath))
        {
            mkdir($fontsPath, 0777, true);
        }
        else
        {
            array_map(function($font) use($fontsPath) {
                if (file_exists($fontsPath.$font) && is_file($fontsPath.$font))
                {
                    unlink($fontsPath.$font);
                }
            }, glob($fontsPath.'*.*'));
        }
    }

    private function _message()
    {
        if (strlen($this->errors)>0)
        {
            echo "<div class='alert alert-danger'><ul>$this->errors</ul></div>";
        }
        if (strlen($this->success)>0)
        {
            echo "<div class='alert alert-success'><ul>$this->success</ul></div>";
        }
    }
}
```
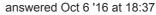
answered Feb 4 at 19:22

Sourav
**448**   4   9

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0

In addition to [k0pernicus](#) I would like to suggest [best-served-local](#). It's also a bash (v4) script to enable webserver operators to download and serve Google web fonts from their own webserver. But in addition to the other bash script, it lets the user fully automate (via cron and such) the serving of up-to-date font files and css-files.

edited May 23 '17 at 10:31          answered Oct 6 '16 at 18:37

Community ♦                           Ronald van Engelen
**1**   1                             1

---

0

There is a very simple script, written in plain Java, to download all fonts from a Google Web Font link (multiple fonts supported). It also downloads the CSS file and adapts it to local files. The user-agent can be adapted to get also other files than only WOFF2. See https://github.com/ssc-hrep3/google-font-download

The resulting files can easily be added to a build process (e.g. a webpack build like vue-webpack).

answered Jul 10 '17 at 7:36

ssc-hrep3
**8,395**   3   28   67

---

You can download source fonts from https://github.com/google/fonts

0      After that use `font-ranger` tool to split your large Unicode font into multiple subsets (e.g. latin, cyrillic). You should do the following with the tool:

- Generate subsets for each language you support
- Use unicode-range subsetting for saving bandwidth
- Remove bloat from your fonts and optimize them for web
- Convert your fonts to a compressed woff2 format
- Provide .woff fallback for older browsers
- Customize font loading and rendering
- Generate CSS file with @font-face rules
- **Self-host web fonts** or use them locally

**Font-Ranger**: https://www.npmjs.com/package/font-ranger

P.S. You can also automate this using Node.js API

edited Jul 1 '18 at 3:41                     answered Jun 26 '18 at 22:57

Do Async
**2,162**    12    14

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