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# WEB FONTFONT USER GUIDE



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## SECTION A

### ABOUT THIS USER GUIDE

This *Web FontFont User Guide* contains information aimed at different groups of people: web developers, system administrators and website visitors.

Section B is for web developers. It shows how to get started using Web FontFonts for display on your website.

Section C contains information for system administrators about which configuration changes may be necessary to successfully serve webfonts from your web server.

Section D outlines some issues visitors of your website may experience in connection to webfonts and may assist site owners in answering webfont-related support requests.

For more general information about Web FontFonts, e. g. language support, please refer to the OpenType User Guide.

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Text typefaces: FF Nexus Mix, Sans, Typewriter

## SECTION B

### WEB DEVELOPERS

#### Browser Support

Web FontFonts come in two formats: *Embedded OpenType*® (EOT), which is a legacy format for Internet Explorer® versions 4–8, and the new *Web Open Font Format* (WOFF).

<i>Browser</i>	<i>Web FontFont support (as at November 2011)</i>
Internet Explorer	EOT from version 4; WOFF from version 9
Firefox	WOFF from version 3.6
Google Chrome	WOFF from version 6
Safari®	WOFF from version 5.0.6
Mobile Safari®	WOFF from iOS version 5.0
Opera®	WOFF from version 11.10
Android™ Browser	–

#### Using Webfonts with Cascading Style Sheets (css)

Upload the font files to your web server. You need two files, one EOT and one WOFF for each font style you want to use in your site. Use the CSS code example below to address your webfonts. Replace the example font file URL with its appropriate path on your server.

```
/* first for Internet Explorer < 9 */
@font-face {
  font-family: MyKievit;
  src: url("/fonts/KievitWebPro-Medium.eot");
}

/* then for WOFF-capable browsers */
@font-face {
  font-family: MyKievit;
  src: url("/fonts/KievitWebPro-Medium.woff") format("woff");
}
```

The value of the `font-family` property ('MyKievit' in this example) is only used internally in your style definitions, so you could set it to any name you like. Make sure to keep it shorter than 32 characters though, or Internet Explorer will not display your webfonts.

When the `@font-face` rule for EOT precedes the rule for WOFF fonts, older Internet Explorer versions will use the EOT fonts and Internet Explorer 9 will use the WOFF fonts, which is the desired behaviour.

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You can then reference your font family in css font stacks by the name you gave it as you would any other (system) font. For example:

```
body {
  font-family: MyKievit, Arial, sans-serif;
  line-height: 1.4em;
}
```

You should always set the `line-height` css property, otherwise the baseline positions and line spacing will differ between browsers.

#### Building Style-linked Groups of Fonts

Style-linked fonts are being used in all HTML elements that usually display variants of their default fonts, e.g. *em* (*emphasis: italic by default*) and *strong* (*strong emphasis: bold by default*).

Use the `font-weight` and `font-style` properties inside your `@font-face` rules to define groups of style-linked fonts under a common family name:

```
@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-Regular.woff") format("woff");
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-Bold.woff") format("woff");
  font-weight: bold;
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-Italic.woff") format("woff");
  font-style: italic;
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-BoldItalic.woff") format("woff");
  font-weight: bold;
  font-style: italic;
}
```

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```
p {
  font-family: Unit, Arial, sans-serif;
  line-height: 1.35em;
}
```

You don't have to stick to the usual *Regular–Bold–Italic–BoldItalic* combination; you can build any groups you want. The example below makes a group that links the *Light* to the *Extra Bold* weight and both their italics:

```
@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-Light.woff") format("woff");
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-ExtraBold.woff") format("woff");
  font-weight: bold;
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-LightItalic.woff") format("woff");
  font-style: italic;
}

@font-face {
  font-family: Unit;
  src: url("/fonts/UnitWebPro-ExtraBoldItalic.woff") format("woff");
  font-weight: bold;
  font-style: italic;
}

p {
  font-family: Unit, Arial, sans-serif;
  line-height: 1.25em;
}
```

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You could even tie an *Italic* from a completely different font family into your style-linked group. In this example *FF Unit Slab Italic* is paired with *FF Meta*:

```
@font-face {
  font-family: MetaUnitSlab;
  src: url("/fonts/MetaWeb-Book.woff") format("woff");
  font-weight: normal;
  font-style: normal;
}

@font-face {
  font-family: MetaUnitSlab;
  src: url("/fonts/ MetaWeb-Bold.woff") format("woff");
  font-weight: bold;
  font-style: normal;
}

@font-face {
  font-family: MetaUnitSlab;
  src: url("/fonts/UnitSlabWeb-Italic.woff") format("woff");
  font-weight: normal;
  font-style: italic;
}

@font-face {
  font-family: MetaUnitSlab;
  src: url("/fonts/UnitSlabWeb-BoldItalic.woff") format("woff");
  font-weight: bold;
  font-style: italic;
}

p { font-family: MetaUnitSlab, Tahoma, sans-serif; }
```

Please note that Internet Explorer ignores CSS style-linking for EOT fonts and uses synthetic styles instead, so these style-linking definitions are only useful for WOFF fonts. See next section for a workaround for EOT fonts in Internet Explorer.

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#### Style-linking Workaround for EOT (Internet Explorer 4 – 8)

If you want to avoid the display of synthetic bold and italic styles for EOT fonts in Internet Explorer, you can change the appropriate CSS rules for the affected browser versions.

You have to redefine all font properties for elements which would otherwise use a style-linked variant. To apply this in Internet Explorer versions 4 – 8 only, you can use a conditional comment in your HTML code to link to a browser-specific CSS file in addition to your standard CSS files:

```
<link rel="stylesheet" href="screen.css" type="text/css" media="screen" />
<link rel="stylesheet" href="print.css" type="text/css" media="print" />
<!--[if lt IE 9]>
  <link rel="stylesheet" href="ie-specific.css" type="text/css"
    media="screen" />
<![endif]-->
```

The contents of the file `ie-specific.css` would look like this:

```
/* first redefine EOT styles as separate families */
@font-face {
  font-family: KavaWebPro-Italic; /* was 'KavaWebPro' */
  src: url("/fonts/KavaWebPro-Italic.eot");
}

@font-face {
  font-family: KavaWebPro-Bold; /* was 'KavaWebPro' */
  src: url("/fonts/KavaWebPro-Bold.eot");
}

@font-face {
  font-family: KavaWebPro-BoldItalic; /* was 'KavaWebPro' */
  src: url("/fonts/KavaWebPro-BoldItalic.eot");
}

/* 'em' is usually displayed using the italic variant.
   Redefine 'font-family' using the new separate font entry from above
   and reset the 'font-variant' property from 'italic' to 'normal'
   to avoid slanting the italic again: */
em {
  font-family: KavaWebPro-Italic;
  font-variant: normal;
}
```

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```
/* 'strong' is usually displayed using the bold weight.
   Redefine 'font-family' using the new separate font entry from above
   and reset the 'font-weight' property from 'bold' to 'normal'
   to avoid emboldening the bold again: */
strong {
  font-family: KavaWebPro-Bold;
  font-weight: normal;
}

/* Combinations of 'strong' and 'em' are usually displayed using the
   bold italic font.
   Redefine 'font-family' using the new separate font entry from above
   and reset the 'font-weight' property from 'bold' to 'normal' as well
   as 'italic' to normal to avoid emboldening and slanting the
   bold italic again: */
strong em, em strong {
  font-family: KavaWebPro-BoldItalic;
  font-weight: normal;
  font-style: normal;
}
```

The only drawback of this solution is that if the webfont display should fail for some reason so that fallback fonts are used, the `em` and `strong` elements will be rendered identical to regular text in Internet Explorer because the `font-variant` and `font-weight` properties have been reset to normal.

Internet Explorer 9 exhibits the same behaviour when in Compatibility Mode. Make sure you are using the browser in Standards Mode in case you notice any problems. You can tell Internet Explorer to use its latest Standards Mode by adding this meta element to the head element of your HTML page:

```
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
```



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#### Controlling Kerning and Ligatures via css

You can use the non-standard css property `text-rendering` to control the usage of kerning and ligatures in Firefox (version 3+). It can take these four values:

- `auto` – The browser will make educated guesses about when to optimize for speed, legibility, and geometric precision when displaying text. Firefox currently uses `optimizeLegibility` if the font size is 20 pixels or larger, and `optimizeSpeed` for smaller fonts.
- `optimizeSpeed` – Rendering speed takes precedence over legibility and geometric precision. Kerning and standard ligatures are disabled.
- `optimizeLegibility` – Legibility takes precedence over rendering speed. Kerning and standard ligatures are enabled.
- `geometricPrecision` – Prefers geometric precision to rendering speed and legibility. Currently results are identical to `optimizeLegibility` in this setting.

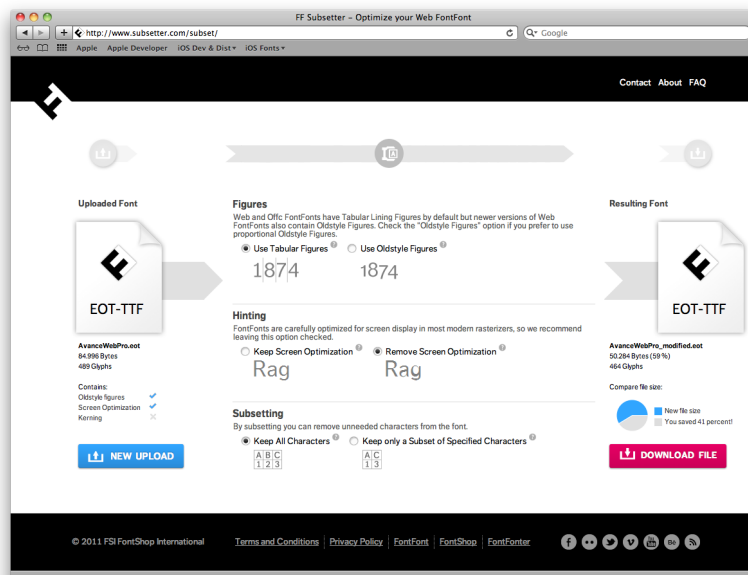
On Mac OS®, Firefox ignores these settings and always uses `optimizeLegibility`.

## Customizing Web FontFonts with the FontFont Subsetter

FontFont Subsetter is a tool for optimizing and customizing Web FontFonts. The free service – found at [www.subsetter.com](http://www.subsetter.com) – lets you significantly reduce file sizes of your Web Font-Fonts to reduce bandwidth usage and make your websites faster.

Subsetter allows you to strip out extraneous glyphs and data that you may not need, like unused language characters, punctuation marks, and kerning information. It will create a new, lighter webfont file tailored to each unique website.

Smaller files mean faster websites and a better user experience. Dropping inessential characters from a webfont can make a big difference in the long term. Smaller files are less expensive too. As a website becomes more popular, it costs more to host and maintain. Every bit of saved bandwidth saves money.



FF Subsetter optimizes fonts in three simple steps:

- Upload a Web FontFont.
- Strip out glyphs and data that may not be needed for a particular site, like unused language characters, punctuation marks, and kerning.
- Download your optimized font file.

File sizes can be reduced up to 90% and the new fonts are instantly usable on the web, just like the originals.

Our latest Web FontFonts even allow you to use Subsetter to choose between proportional oldstyle figures and tabular lining figures. [This video tutorial](#) explains how.

SECTION C

SYSTEM  
ADMINS

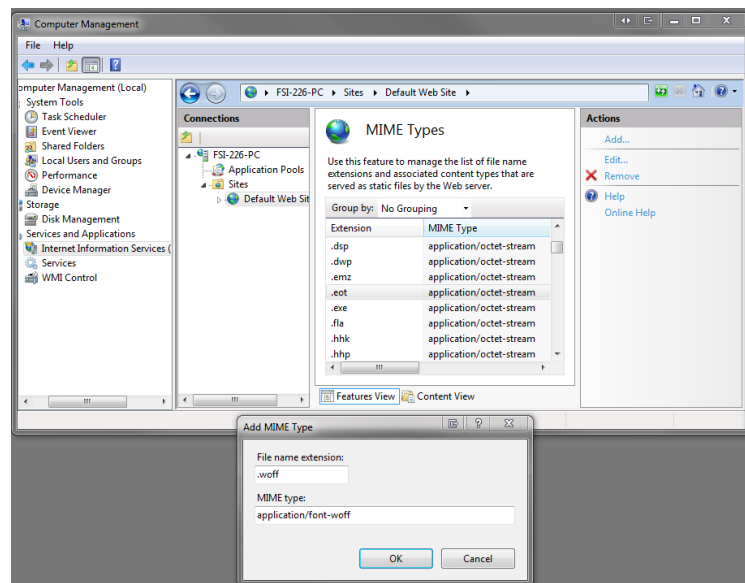
The configuration snippets given in this section are short examples and may not contain everything that is required to make a certain feature work in your specific server setup. Please always double-check the configurations against your web server’s manual if you are in doubt about what they do exactly.

**MIME Types for Webfonts**

To ensure proper handling of webfont files by your web server, you should add their corresponding MIME types to your MIME configuration.

<i>File suffix</i>	<i>MIME type</i>
eot	application/vnd.ms-fontobject
woff	application/font-woff

Microsoft® Internet Information Server (IIS) already has a MIME type entry for EOT, but not for WOFF. IIS will not send WOFF files to a client at all, unless you add the MIME type for WOFF fonts as shown below.



### Strange Log File Entries Caused by Internet Explorer

You may notice entries like the ones below in your web server log files:

```
GET /fonts/DaxCompactWeb-Black.eot HTTP/1.1 200 104992
GET /fonts/DaxCompactWeb-Black.woff)%20format(%22woff%22) HTTP/1.1 404 290
```

The first request is a correct one. The second request occurs due to a bug in Internet Explorer. Internet Explorer does not understand the `@font-face` rule for `WOFF` fonts and misinterprets it, resulting in an erroneous request for a non-existing file. This second log entry may safely be ignored.

### Using Content Compression for Webfont Files

Activating content compression in your web server can reduce traffic volume and loading times. Files are compressed on the fly before sending them to the client, thus reducing the amount of data to be transmitted.

For example, the Apache HTTP Server (versions 2+) provides compression by the module `mod_deflate`. Below is the module's default configuration, in which only text files are compressed:

```
<IfModule mod_deflate.c>
  AddOutputFilterByType DEFLATE text/html text/plain text/xml
</IfModule>
```

Modify your configuration as shown below to have your Apache HTTP Server compress `EOT` fonts as well before transmitting them. This only works as intended if you have defined a separate `MIME` type for `EOT` fonts (see above).

Add the `MIME` type for `EOT` fonts to the list of types to be compressed in your `mod_deflate` configuration:

```
<IfModule mod_deflate.c>
  AddOutputFilterByType DEFLATE text/html text/plain text/xml \
    application/vnd.ms-fontobject
</IfModule>
```

This measure will reduce the traffic volume generated by `EOT` fonts by about 50 to 60%. `WOFF` font files are already pre-compressed, so further compression is not necessary.

## Blocking Hotlinking of Webfont Files

When other websites are linking directly to your hosted webfont files (also called *hotlinking*), they are using *your* fonts, which they haven't licensed, and they are using your bandwidth, adding to your site's traffic costs.

To prevent hotlinking of font files, you can utilize *origin and referrer checking* in your web server. Each request for a font file which doesn't come from a page of your own site will be blocked after you add the rules below to your server configuration (the example is for Apache HTTP Server).

Let's say you have uploaded the webfont files onto to your site `www.example.com` into a sub-directory called `/fonts/`. Make a new file named `.htaccess` inside this directory and paste these lines into it:

```
RewriteEngine On
RewriteCond %{HTTP:Origin} !^$|http(s)?://(www\.)?example\.com$ [NC]
RewriteRule \.(woff|eot)$ - [NC,L]
RewriteCond %{HTTP_REFERER} !.
RewriteRule \.(woff|eot)$ - [F,NC,L]
Options -Indexes
```

Replace `example.com` by your own host name. The dot must be preceded by a backslash. The *regular expression* `(www\.)?` means that both URLs with and without the 'www' prefix are valid for your site, and `(s)?` means that your site may be accessed via HTTPS or plain HTTP.

Requests for all files ending in `.woff` or `.eot` with an origin HTTP header (i.e. request coming from a site other than your own) or an empty referrer will now receive an HTTP error 403 ('forbidden'). The line `Options -Indexes` disables the file listing for the fonts directory.

If you get an HTTP error 500 ('internal server error') after editing the `.htaccess` file or if the file has no effect, your server probably does not allow changing configuration settings this way. In case you can't or don't want to use an `.htaccess` file, you can put these lines directly into your Apache configuration. Please refer to the server documentation if you're not sure where to put them exactly.

If you are using Internet Information Server, you can convert the above configuration from Apache-style to IIS rewrite rules. See <http://learn.iis.net/page.aspx/470/import-apache-modrewrite-rules> for details.

There are circumstances in which referrer information is not sent when it should be, e.g. if a website visitor uses certain ad-blocking plug-ins. In this rare case the above configuration will cause fallback fonts to be displayed instead of your specified webfonts.



## SECTION D

### USER SETTINGS

#### **Rendering Issues on Windows®**

Web FontFonts are optimized for screen display with ClearType® font smoothing turned on. ClearType is enabled by default in Windows Vista®, Internet Explorer 7, Firefox 4 and newer versions.

To enable ClearType:

Click *Start*, then open the *Control Panel*, click *Appearance and Themes*, then click *Display*. In the *Appearance* tab, click *Effects*. Click to select the *Use the following method to smooth edges of screen fonts* check box, then select *ClearType* in the list box. Click *OK* in the two open dialog windows to apply the changes.

Please see <http://support.microsoft.com/kb/306527> for further information on ClearType.

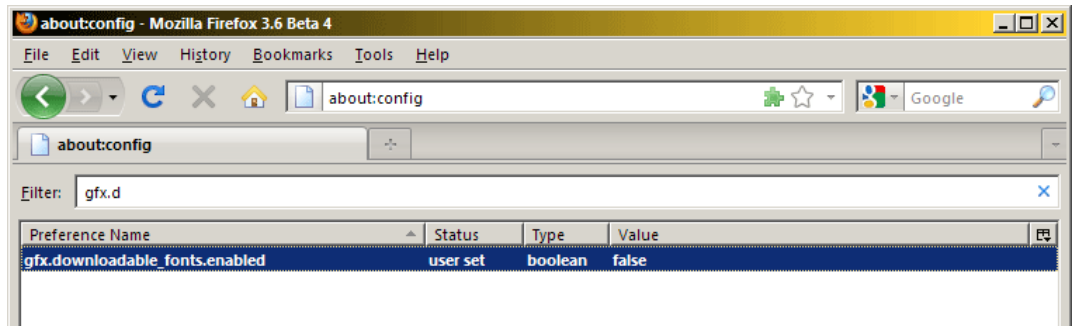
If users can not or do not want to use ClearType or similar font smoothing methods for some reason, they may prefer to disable webfonts in their browser. Please refer to the next two sections for how to do this in Firefox and Internet Explorer.

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#### Disabling Webfonts in Firefox

Type 'about:config' into the address field and hit enter. Confirm the warning dialogues that appear, then use the *Filter* field to search for 'gfx.downloadable\_fonts.enabled'. Double-click to change the setting to *false* as shown below. Restart Firefox.



#### Disabling Webfonts in Internet Explorer

Menu *Extras* – *Internet Options* – *General* – *Accessibility* – check *Ignore font styles specified on Web pages* as shown below. This setting will always use the fonts you specified in your Internet Explorer display settings.

