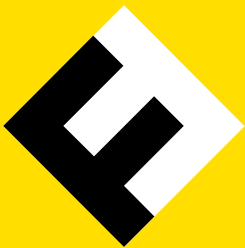


VERSION 1 | January 2010

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

Browser Support

Internet Explorer® can use webfonts in *Embedded OpenType*® (EOT) format from version 4 and higher. Firefox® introduced support for webfonts in *Web Open Font Format* (WOFF) in version 3.6. Other browsers do not (yet) support these formats.

<i>Browser</i>	<i>Web FontFont support</i>
Internet Explorer	from version 4 (EOT)
Firefox	from version 3.6 (WOFF)
Google Chrome™	–
Safari®	–
Opera®	–

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 */
@font-face {
  font-family: MyKievit;
  src: url(/fonts/KievitWebPro-Medium.eot);
}

/* then for Firefox */
@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.

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

```
body { font-family: MyKievit, Arial, sans-serif; }
```

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Building Style-linked Groups of Fonts

Set 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-weight: normal;
  font-style: normal;
}

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

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

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

p { font-family: Unit, Arial, sans-serif; }
```

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-weight: normal;
  font-style: normal;
}
```

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```
}

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

@font-face {
  font-family: Unit;
  src: url(/fonts/UnitWebPro-LightItalic.woff) format('woff');
  font-weight: normal;
  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; }
```

You could even tie in an italic style from a completely different font family into your 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;
```

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```
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; }
```

The style-linked fonts will now be used in all elements that usually display style variants of their default fonts, e.g. `em` (emphasis: italic by default) and `strong` (strong emphasis: bold by default).

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

Style-linking Workaround for Internet Explorer

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

You have to redefine all font properties for elements which would otherwise use a style-linked variation. To apply this in Internet Explorer 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 IE]>
  <link rel="stylesheet" href="ie-specific.css" type="text/css"
    media="screen" />
<![endif]-->
```

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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);
}

/* '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;
}

/* '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;
}
```

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.

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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`.

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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

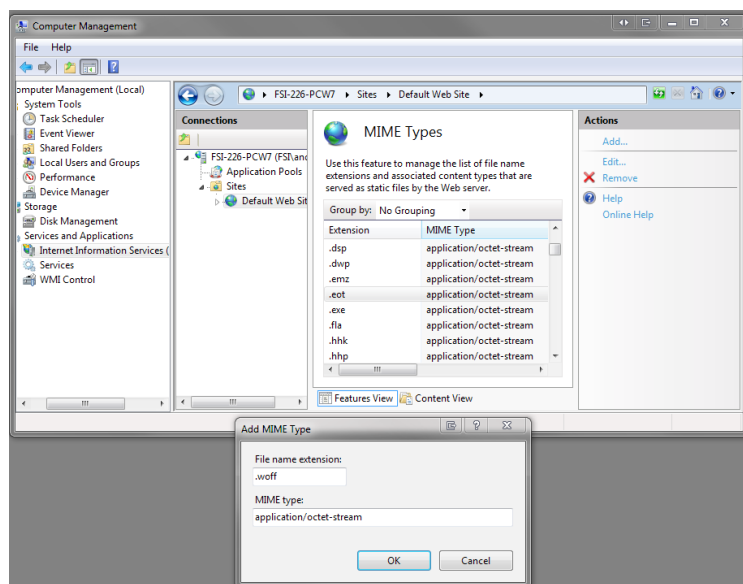
To ensure proper handling of webfont files by your web server, you must add their corresponding MIME types to your MIME configuration.

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

A MIME type for WOFF fonts is not yet standardized, so the ‘x-’ prefix is used. This may change in the future.

You can also use the generic type *application/octet-stream* for both kinds of files. Using separate MIME types is useful though for turning on file compression selectively in the Apache™ HTTP Server. See section *Using content compression for webfont files* below for further details on compression.

Microsoft® Internet Information Server (IIS) already has the appropriate 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.

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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 properly, and they are using your bandwidth, adding to your site's traffic costs. The Web FontFont EULA (End User Licence Agreement) requires that you take reasonable measures against hotlinking and direct access to font files.

A reasonable measure is utilizing *referrer checking* in your web server. Each request for your font files which doesn't come from inside your own site will be blocked after you add these rules to your rewrite configuration (example for Apache HTTP Server):

```
RewriteCond %{HTTP_REFERER} !^http://(www\.)?example\.com/*$ [NC]
RewriteRule \.(woff|eot)$ - [F,NC,L]
```

Replace 'example\.com' by your own domain name. The dot must be preceded by a backslash. The expression '(www\.)?' means that both URLs with and without the 'www' prefix are valid for your site. Requests for all files ending in .woff or .eot with an external or empty referrer will now receive an HTTP error 403 ('forbidden').

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 or has otherwise turned referrer sending off. In this combination 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 has not been enabled by default in Windows versions older than Vista®, and in Internet Explorer older than version 7.

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.

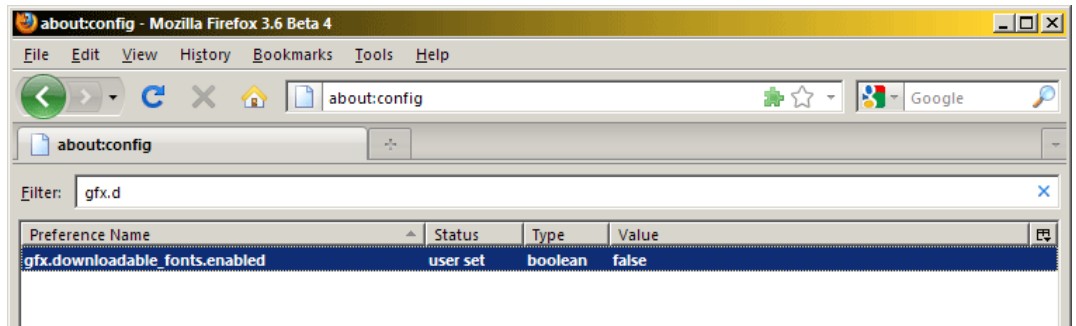
If users can not or do not want to use ClearType or similar font smoothing methods for some reason, they may prefer to disable webfonts in their browser. Please refer to the next two sections for how to do this in Firefox and Internet Explorer.

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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.

