

## WEB FONT USER GUIDE

Version 2.2

# WEBFONT USER GUIDE

**A guide to Fontsmith web fonts and  
best practices for implementation.**

**WEB FONT USER GUIDE**

Version 2.2

# Table of Contents

|   |    |
|---|----|
| Browser Support .....                                   | 03 |
| Using web fonts with Cascading Style Sheets (CSS) ..... | 04 |
| Kerning and Ligatures via CSS .....                     | 08 |
| Tracking and leading via CSS .....                      | 09 |
| Securing/hiding web fonts .....                         | 10 |
| Adjusting font rendering on Mac OS X .....              | 11 |
| Using OpenType features .....                           | 12 |
| Troubleshooting .....                                   | 13 |
| Any further questions? .....                            | 15 |

**WEB FONT USER GUIDE**Version 2.2

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# Browser Support

Fontsmith supply two web font formats for self-hosting – WOFF and EOT.

The majority of web browsers support WOFF yet different versions of each browser can support different formats. Below is a brief overview.

**Internet Explorer:** Supports EOT files from version 4.0 | WOFF files from version 9.0

**Firefox:** Supports WOFF files from version 3.6

**Chrome:** Supports WOFF files from version 6.0

**Safari:** Supports WOFF files from version 5.0.6

**Opera:** Supports WOFF files from version 11.10

**iOS Safari:** Supports WOFF files from version 5.0

**Android Browser:** WOFF files from version 4.4

**Blackberry Browser:** Supports WOFF files from version 7.0

**For more detailed information visit:**

<http://caniuse.com/woff>

<http://caniuse.com/eot>

**WEB FONT USER GUIDE**

Version 2.2

# Using web fonts with Cascading Style Sheets (CSS)

- 1) Upload the appropriate web font file formats to your web server.
- 2) Copy the code snippet example below into your CSS to address your webfonts.  
Replace the example font file URL with the appropriate path to the files on your server.

```
@font-face {  
    font-family: 'SampleName';  
    src: url('FSAlbertWeb-Regular.eot'); /* IE9 */  
    src: url('FSAlbertWeb-Regular.eot?#iefix') format('embedded-opentype'), /* IE6-IE8 */  
    url('FSAlbertWeb-Regular.woff') format('woff'); /* Modern Browsers */  
    font-weight: normal;  
    font-style: normal;  
}
```

The value of the ‘font-family’ property (**‘SampleName’** in this example) is only used internally in your style definitions, you could set it to any name you like. Make sure it’s shorter than 32 characters though, or Internet Explorer will not display your fonts. 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.

**WEB FONT USER GUIDE**

Version 2.2

# Using web fonts with Cascading Style Sheets (CSS)

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: SampleName, Arial, sans-serif;  
  line-height: 16px;  
}
```

You always better set the line-height CSS property using pixel as measurement unit, otherwise the baseline positions and line spacing will be set by and differ between browsers.

**WEB FONT USER GUIDE**

Version 2.2

# Using web fonts with Cascading Style Sheets (CSS)

## 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: FSLolaWeb;  
    src: url("/fonts/fs_lola_web-regular.woff") format("woff");  
}  
  
@font-face {  
    font-family: FSLolaWeb;  
    src: url("/fonts/fs_lola_web-bold.woff") format("woff");  
    font-weight: bold;  
}  
  
@font-face {  
    font-family: FSLolaWeb;  
    src: url("/fonts/fs_lola_web-bold_italic.woff") format("woff");  
    font-weight: bold;  
    font-style: italic;  
}
```

**WEB FONT USER GUIDE**

Version 2.2

# Using web fonts with Cascading Style Sheets (CSS)

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 Heavy weight of our FS Me typeface:

```
@font-face {  
  font-family: FSMWeb;  
  src: url("/fonts/fs_me_web-light.woff") format("woff");  
}  
  
@font-face {  
  font-family: FSMWeb;  
  src: url("/fonts/fs_me_web-heavy.woff") format("woff");  
  font-weight: bold;  
}  
  
@font-face {  
  font-family: FSMWeb;  
  src: url("/fonts/fs_me_web-heavy_italic.woff") format("woff");  
  font-weight: bold;  
  font-style: italic;  
}
```

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 web fonts.

**A good reference:**<https://tinyurl.com/q6n63rn>

**WEB FONT USER GUIDE**

Version 2.2

# Kerning and Ligatures via CSS

You can use the non-standard CSS selector ‘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 X and Windows, Firefox ignores these settings and always uses **optimizeLegibility**. On Mac OS X and Windows, Opera ignores these settings and always render the font without kerning, as does Internet Explorer on Windows.

Support for ligatures varies between browser (see page 12).



**WEB FONT USER GUIDE**

Version 2.2

# Tracking and leading via CSS

You can control the tracking (space between letters) and line-heights (space between lines) using CSS properties.

## Adjusting tracking

Using the letter-spacing CSS selector you can increase/decrease the space between all letters.

```
.loose { letter-spacing:0.1px; }  
.tight { letter-spacing:-0.01em; }
```

Please note that only Firefox supports this selector fully as of date of writing. Other browsers will round up or down the letter-spacing value to whole pixels or the tenth of em.

## Adjusting leading

Using the line-height CSS selector you can increase/decrease the space between the lines.

```
.loose { line-height:140%; }  
.tight { line-height:0.8em; }
```

100% line height equals 1em. As previously mentioned, it is a good practice to define the line-height as different browsers use different default values, which may lead to an inconsistent display of the web site's design. Also you're advised to use pixel as measurement unit when setting 'line-height'.

## A good reference

<https://tinyurl.com/kmtrs5f>

**WEB FONT USER GUIDE**Version 2.2

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# Securing/hiding web fonts

Fontsmith actively encourages the protection of font software. Here are a few methods that can be implemented to support our endeavour by hosting web fonts in a more secure way —

- You can use Base64 encoding to send your .woff files to the browser.  
This means bigger .CSS files but be less HTML requests. Base64 encoded fonts are difficult to decode to working desktop fonts. Any decoded fonts will not embed or print in any application. Unfortunately, it is not possible to encode .eot files like this.
- In order to prevent hot-linking of font files (or any other web asset) you can set up a .htaccess file on your webserver. This will allow only the selected urls to access your files. Although it can't prevent anyone from downloading the fonts if they navigate to the folder directly. Search the web or contact you developer or webspace provider who will be able to help you set an .htaccess file easily.

**WEB FONT USER GUIDE**

Version 2.2

# Adjusting font rendering on Mac OS X

Place this piece of code into your CSS file. It shows all the options, some of which need to be deleted with regards to your preferences but do not worry, your developer will know how to do this:

```
body{  
    /* Can be placed into any CSS element like 'div', 'p' or so, not just in 'body' */  
    /* This is how you tweak rendering in browsers with support */  
    /* Slightly lighter letters; for webkit-base browsers like Safari and Chrome  
    (effect on Mac only) */  
    -webkit-font-smoothing: antialiased;  
    /* Slightly bolder letters; for webkit-base browsers like Safari and Chrome  
    (effect on Mac only) */  
    -webkit-font-smoothing: subpixel-antialiased;  
    /* Slightly lighter letters; for Firefox (effect on Mac only) */  
    -moz-osx-font-smoothing: grayscale;  
    /* Slightly bolder letters; for Firefox (effect on Mac only) */  
    -moz-osx-font-smoothing: auto;
```

These settings will affect text-rendering in only the latest Safari, Chrome and Firefox browsers on Mac OS X.

**WEB FONT USER GUIDE**

Version 2.2

# Using OpenType features

A quick overview of how to turn OpenType features on and off in browsers. Place this piece of code into your CSS file.

```
body{  
  -moz-font-feature-settings:"liga", "dlig", "kern", "onum";  
  -moz-font-feature-settings:"liga=1, dlig=1, kern=1, onum=1";  
  -ms-font-feature-settings:"liga", "dlig", "kern", "onum";  
  -o-font-feature-settings:"liga", "dlig", "kern", "onum";  
  -webkit-font-feature-settings:"liga", "dlig", "kern", "onum";  
  font-feature-settings:"liga", "dlig", "kern", "onum";  
}
```

These features are not supported in all browsers.

Here is a list of browsers where OpenType features will work:

- Internet Explorer 10+ (not in IE mobile yet)
- Firefox 4+ (syntax change in FF 14, 25+ for Android)
- Chrome (15/16+ Win, 22+ Mac, 31+ Android)
- Safari: 6.1+ (7+ on iOS)
- Opera: 15+ (16+ mobile, not in Opera mini)
- Android: coming in 4.4
- Blackberry browser: 10+

**For more information please visit:**

<http://blog.webink.com/opentype-features-css>

**WEB FONT USER GUIDE**Version 2.2

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# Troubleshooting

Things sometimes just won't work. Here are a few tips to help.

First of all, please ensure you are using the webfont files provided by Fontsmith.

**No webfonts at all**

Most certainly there is a broken or miss-spelled link in your CSS code.

Check all the links and all the referenced files are correctly in place.

**No webfonts in Firefox or IE**

Firefox and IE (9+) intentionally blocks files from different domains (or sub-domains). You can host the fonts on your server or it is possible to add WOFF to your list of MIME types. Another reason would be that you may be using a Firefox version older than version. You will need to update.

**No webfonts in IE**

If you use a virtual machine for rendering different browser preview (using service like Browser Stack or Sauce Labs) it may not render @font-face for IE. Try testing the fonts in a real browser environment.

**No WOFF loading**

It could be that you are using IIS as a webserver. IIS doesn't serve file types (MIME types) it doesn't know so you have to set the MIME type for WOFF to "application/x-font-woff" in the server settings.

**WEB FONT USER GUIDE**Version 2.2

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# Troubleshooting

**No kerning**

Are you using the text-rendering non-standard CSS selector in the right place (see page 8)? If so, the kerning for the letter pair may not exist. Also check whether your browser supports this feature at all—IE and Opera do not support kerning as of writing this.

**Ugly letters in Chrome**

Are you using the supplied Fontsmith web font files? Are you using an older version of Chrome—especially version 33? Please update your browser.

**Ugly letters in all browsers**

Make sure you are using the original web font files Fontsmith has provided for you and not a version which has been created using an online web font generator. Always use the original supplied Fontsmith webfont files, they have been tested in order to ensure the best possible rendering results for across all supporting browsers.

**Fonts files are too big**

Fontsmith webfonts have been optimized in character set and size and the average .woff and .eot file size is around 65KB in case of a font with Central European support, these files are compressed and optimised for download. However you can still set your server to serve all the font files gzipped. Your server is usually set to do so by default.

**WEB FONT USER GUIDE**Version 2.2

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# Any further questions?

Whilst we have endeavoured to make this guide as comprehensive as possible, you may still have a specific question regarding our web fonts. If you do, please contact us at the

**Fontsmith Support Helpdesk Online**<https://www.fontsmith.com/support/form>**Telephone**

+44 (0) 20 7490 9380

We will try our best to help! If you would like to obtain a quotation or discuss our self-hosting licenses, please e-mail to [info@fontsmith.com](mailto:info@fontsmith.com)

Thank you,

Team Fontsmith.