

Where Web Typography Goes to Next

Richard Rutter

Sunday, 13 March 2011

I'm cofounder of Fontdeck.com, a webfonts service.

I'm going to talk a lot about what we have to look forward to, and why web typography is going to go from strength to strength over the next few years.

I've seen the future and its 326 ppi.



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I've seen the future and its 326 ppi.
We've all seen his res displays on the iPhone 4 and other devices.
The real excitement will be when this hits iPad (iPad 3 this Christmas maybe?)
And then Macbook... and iMac... and if Apple can do it then other manufacturers will do too.
Why is hi res important? It shows the little details that are so important in typography.



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Most of the content on the web consists of words.

If our web of words is to be read, and for that reading experience to be good, to be great, then its the details that will count.
Thats what typography itself is all about: the little details adding up to be greater than the sum of the parts.

I’m going to go through some of the upcoming CSS3 features that provide more control over the details.

Regular Adelle

Bold Adelle

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Lets start with some CSS 1. Font-weight. Here's regular and bold of Adelle, a lovely slab serif design by TypeTogether.

Light	Adelle
Regular	Adelle
SemiBold	Adelle
Bold	Adelle
ExtraBold	Adelle
Heavy	Adelle

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Not just regular and bold, but also light, semibold, extrabold, heavy.

6 different weights.

```
h1 {  
    font-family: "Adelle", Cambria, Georgia, serif;  
    font-weight: bold;  
}
```

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You'll be familiar with this: using font-weight with the bold keyword.

```
h1 {  
    font-family: "Adelle", Cambria, Georgia, serif;  
    font-weight: 200;  
}
```

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But to set a weight lighter than regular, or indeed heavier than bold, we need to resort to a numerical scale.

Values for font-weight property

100	Ultra Light, Extra Light
200	Light, Thin
300	Book
400	<i>Normal</i> , Regular
500	Medium
600	Demi Bold, Semi Bold
700	<i>Bold</i>
800	Black, Extra Bold
900	Ultra Bold, Fat, Heavy

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Scale roughly matches to this. Normal is 400 and Bold is 700 but otherwise not hard and fast – requires experimentation.

Should be the present – specified in CSS1 in 1996 – but still lies partially in the future.

For OS-installed fonts, these are not really supported properly in any version of Internet Explorer or Opera.

In Firefox and Safari the support is inconsistent.

Opera 11

100 · Adelle Regular

200 · Adelle Regular

300 · Adelle Regular

400 · Adelle Regular

500 · Adelle Regular

600 · Adelle Bold

700 · Adelle Bold

800 · Adelle Bold

900 · Adelle Bold

800 · Adelle Bold

800 · Adelle Bold

Opera 11

Firefox 3.6

100 · Adelle Light

200 · Adelle Light

300 · Adelle Light

400 · Adelle Regular

500 · Adelle Regular

600 · Adelle Semibold

700 · Adelle Bold

800 · Adelle Heavy

900 · Adelle Heavy

800 · Adelle Heavy

800 · Adelle Heavy

Firefox 3.6

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100–300 Light – as expected.

In Firefox the Extrabold is missed out for 800 and Heavy is used instead.

Safari 5

100 · Adelle Light

200 · Adelle Light

300 · Adelle Light

400 · Adelle Regular

500 · Adelle Regular

600 · Adelle Semibold

700 · Adelle Bold

800 · Adelle ExtraBold

900 · Adelle ExtraBold

800 · Adelle ExtraBold

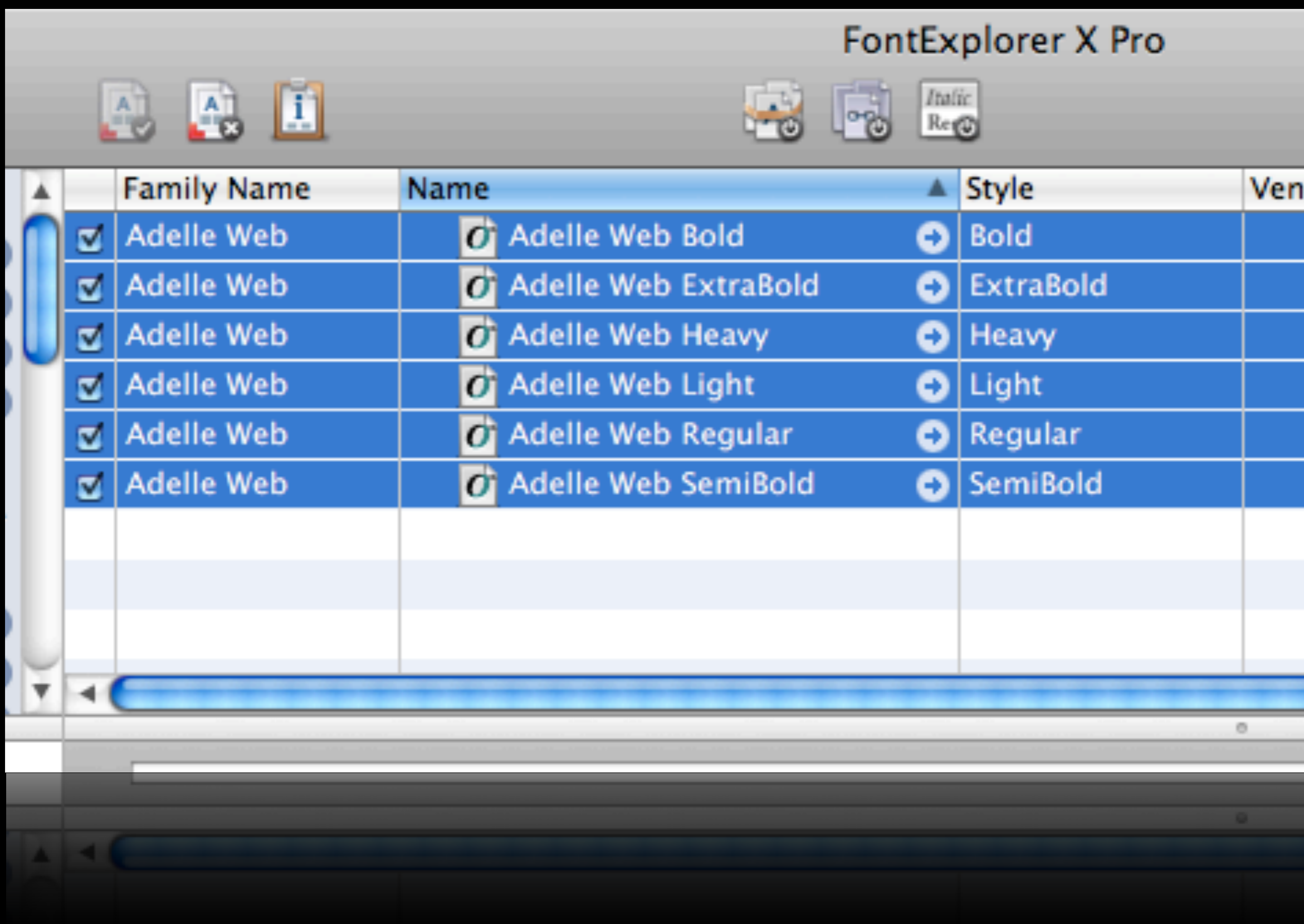
800 · Adelle ExtraBold

Safari 5

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Safari doesn't use the Heavy but uses the ExtraBold instead

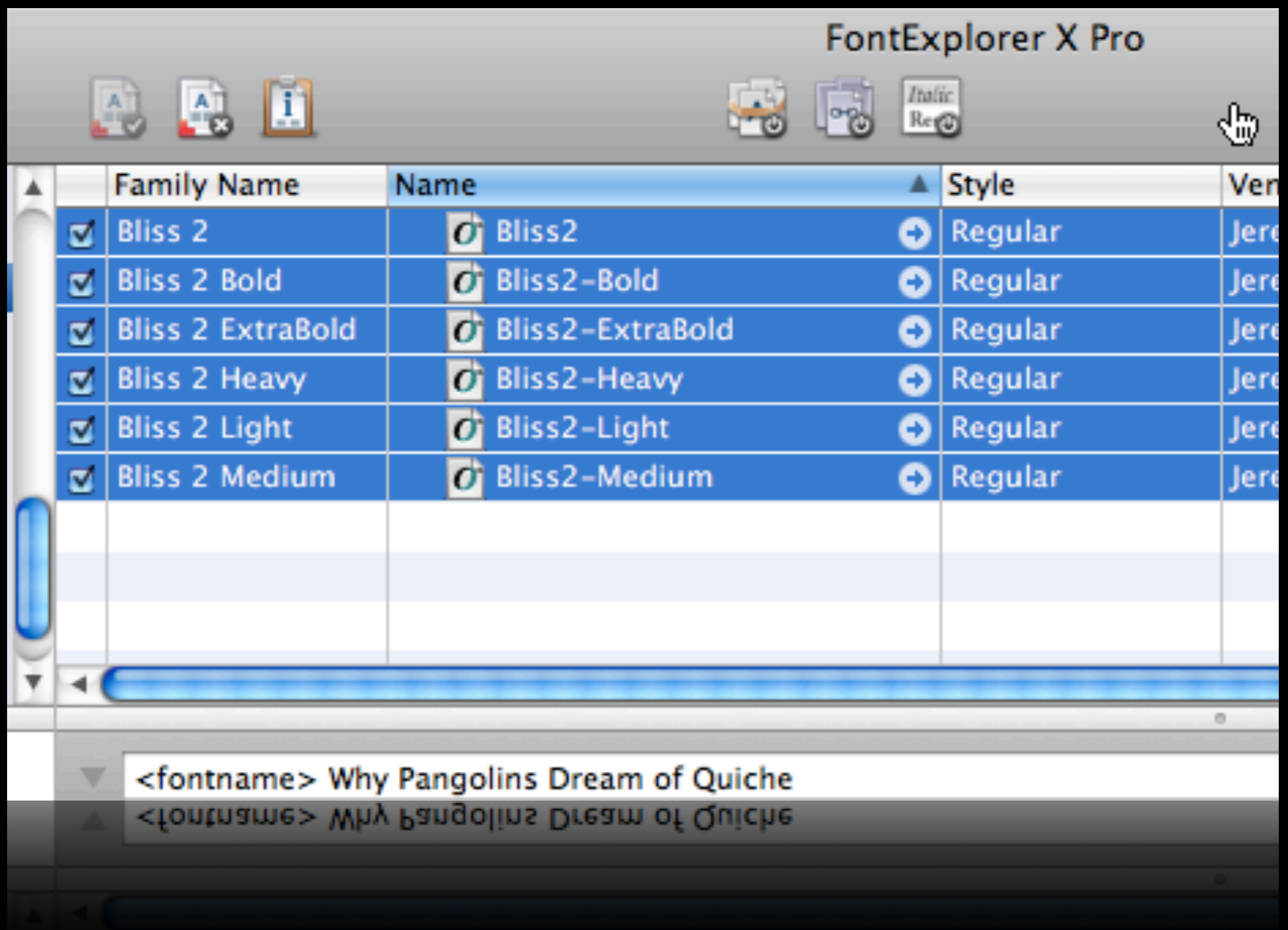
So maybe we might get consistency in the future, but I doubt it.
It's not all down to the browser, sometimes its down to the font maker.



Adelle in FontExplorer X

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Adelle family name is the same “Adelle Web” for each weight.



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Bliss has six weights as well, but each has been given a different family name.

From a CSS perspective they are viewed as different fonts so font-weight has no chance.

From a general website perspective this is largely academic because the fonts won't be installed, but different story for a controlled environment like an intranet.

Extra condensed	Clarendon
Condensed	Clarendon
Regular	Clarendon
Expanded	Clarendon
Extra expanded	Clarendon

```
h1 {  
    font-family: "Clarendon", Georgia, serif;  
    font-stretch: condensed;  
}
```

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But what about a condensed font? We use the font-stretch property.

Originally introduced in CSS 2, dropped from CSS 2.1 but now back in the Fonts Module of CSS 3.

Values for font-stretch property

Ultra Condensed

Extra Condensed

Condensed

Semi Condensed

Normal

Semi Expanded

Expanded

Extra Expanded

Ultra Expanded

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Why couldn't they call it font-width?

I hope browsers don't synthesise stretched fonts.

No support apart from Firefox 3.6. No word from the others yet.

Clarendon URW

font-stretch	rendering
ultra-condensed	Why pangolins dream
extra-condensed	Why pangolins dream
condensed	Why pangolins dream
semi-condensed	Why pangolins dream
normal	Why pangolins dream
semi-expanded	Why pangolins dream
expanded	Why pangolins dream
extra-expanded	Why pangolins dream
ultra-expanded	Why pangolins dream

ηΓϚϡ-εχρβανqεq Wpλ ḡṣṽḡoṛṛṽṣ qṛḡṣṽ

εχϚϡ-εχρβανqεq Wpλ ḡṣṽḡoṛṛṽṣ qṛḡṣṽ

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That support in Firefox 3.6 is problematic. Not always its fault.

Despite having 5 different widths installed, the Clarendon didn't work because the other widths had different Family Names, as we just saw when using font-weight with Bliss.

Lets pick a different font. Helvetica Neue – installed on all your Macs in various weights and widths.

Helvetica Neue

font-stretch	rendering
ultra-condensed	Why pangolins dream
extra-condensed	Why pangolins dream
condensed	Why pangolins dream
semi-condensed	Why pangolins dream
normal	Why pangolins dream
semi-expanded	Why pangolins dream
expanded	Why pangolins dream
extra-expanded	Why pangolins dream
ultra-expanded	Why pangolins dream

ultra-expanded	Why pangolins dream
extra-expanded	Why pangolins dream

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Interesting. We have a condensed font appearing. Albeit a bold one.

Lets see what fonts are actually installed.

name	Style	Vendor
HelveticaNeue	–	Linotype
Helvetica Neue	Regular	Linotype
Helvetica Neue Bold	Bold	Linotype
Helvetica Neue Bold Italic	Bold Italic	Linotype
Helvetica Neue Condensed Black	Condensed Black	Linotype
Helvetica Neue Condensed Bold	Condensed Bold	Linotype
Helvetica Neue Italic	Italic	Linotype
Helvetica Neue Light	Light	Linotype
Helvetica Neue Light Italic	Light Italic	Linotype
Helvetica Neue UltraLight	UltraLight	Linotype
Helvetica Neue UltraLight Italic	UltraLight Italic	Linotype

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So there's lots of regular weights but only a condensed black and condensed bold. Excluding italics, 6 different styles.

What happens if we combine font-weight and font-stretch?

Helvetica Neue

	font-weight			
font-stretch	200	normal	bold	800
ultra-condensed	Pangolins	Pangolins	Pangolins	Pangolins
extra-condensed	Pangolins	Pangolins	Pangolins	Pangolins
condensed	Pangolins	Pangolins	Pangolins	Pangolins
semi-condensed	Pangolins	Pangolins	Pangolins	Pangolins
normal	Pangolins	Pangolins	Pangolins	Pangolins
semi-expanded	Pangolins	Pangolins	Pangolins	Pangolins
expanded	Pangolins	Pangolins	Pangolins	Pangolins
extra-expanded	Pangolins	Pangolins	Pangolins	Pangolins
ultra-expanded	Pangolins	Pangolins	Pangolins	Pangolins

ultra-expanded	Pangolins	Pangolins	Pangolins	Pangolins
extra-expanded	Pangolins	Pangolins	Pangolins	Pangolins

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Oh. Not quite sure whats going on there.

This table implies 36 different styles. As we’ve seen there are only six, not including italics. The browser has to pick something, CSS 3 specifies an algorithm for that.

As closely as possible, supposed to match font–stretch first, then font–style (not relevant here) then font–weight.

Condensed row is correct, so is normal. But the others are wrong.

So all in all, not good. Or is it?

Font Linking

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So all in all, not good. Or is it?

Font Linking is the future, and it's with us already – in one way or another there's support in every modern browser.

Essentially you stick a font file on a server and a website links to it.

The font is downloaded and used to render the page (the font isn't installed).

And it provides a way to consistently display precisely the font you want in every browser.

It solves the font-weight and font-stretch problems. Let's see how.

```
@font-face {  
    font-family: "Clarendon";  
    src: url("clarendon-nar-eb.woff");  
}
```

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This is what it looks like. So-called @font-face rules.

```
@font-face {  
    font-family: "Clarendon";  
    src: url("clarendon-nar-eb.woff");  
    font-weight: 800;  
    font-stretch: condensed;  
}
```

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We can link to the font we actually want to use AND specify its weight and width.

Clarendon URW Extra Bold

font-stretch	rendering
ultra-condensed	Why pangolins dream
extra-condensed	Why pangolins dream
condensed	Why pangolins dream
semi-condensed	Why pangolins dream
normal	Why pangolins dream
semi-expanded	Why pangolins dream
expanded	Why pangolins dream
extra-expanded	Why pangolins dream
ultra-expanded	Why pangolins dream

ultra-expanded	Why pangolins dream
extra-expanded	Why pangolins dream

Extrabold in different widths

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Yay!
Extrabold Clarendon in the 5 different widths we saw earlier.

But remember only Firefox supports font-stretch right now.

And IE doesn't support font-weight either in @font-face rules.
Gah!

But it can still work!

```
@font-face {  
    font-family: "Clarendon Narrow Extrabold";  
    src: url("clarendon-nar-eb.woff");  
    font-weight: 800;  
    font-stretch: condensed;  
}
```

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First of all you need to specify a different font family for each different style.

Painful? Yes. But it works.

Browser support for Webfonts

Browser	File types supported
Internet Explorer 4	Embedded OpenType (EOT)
Internet Explorer 9	EOT, WOFF
Safari 3.1	TrueType, OpenType, SVG
Safari 5	TrueType, OpenType, SVG, WOFF
Opera 10	TrueType, OpenType
Opera 11.1	TrueType, OpenType, WOFF
Firefox 3.1	TrueType, OpenType
Firefox 3.6	TrueType, OpenType, WOFF
Chrome beta 4	TrueType, OpenType, SVG
Mobile Safari iOS 3.2	SVG
Mobile Safari iOS 4.2	SVG, TTF

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And then theres all these complications.
Different browsers support different fonts file types.

```
@font-face {  
  font-family: "Clarendon Narrow Extrabold";  
  src: url(clarendon-nar-eb.eot);  
  src: url(clarendon-nar-eb.eot?iefix) format(eot),  
       url(clarendon-nar-eb.woff) format(woff),  
       url(clarendon-nar-eb.ttf) format(truetype),  
       url(clarendon-nar-eb.svg#font) format(svg);  
  font-weight: 800;  
  font-stretch: condensed;  
}
```

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Then specify all the different file formats.

(this latest version developed by Ethan Dunham of Fontsquirrel)

why two src's? The first one is for IE9 in IE7 and IE8 compatibility mode.

One nice thing about webfont services, they take all this pain away for you.

dConstruct 2010

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WARREN

TOM COATES

JOHN GRUBER THE AUTEUR THEORY OF DESIGN

Why is it that some projects never rise to the level of the talent of those who made it? It's oft said regarding good work that the whole is greater than the sum of its parts. But sometimes the whole is *less* than the sum of its parts—a company or team comprised of good people, but yet which produces work that isn't good.

In his session, John will explain his theory to explain how this happens—in both directions—based on the longstanding collaborative art of filmmaking. Learn how to recognise when a project is doomed to mediocrity, and, more importantly, how best to achieve collaborative success.



John Gruber writes and publishes **Daring Fireball**, a somewhat popular weblog ostensibly focused on Mac and web nerdery. He has been producing Daring Fireball as a full-time endeavour since April 2006.

He lives in Philadelphia with his wife and son.



daringfireball.net



daringfireball.net

2010.dconstruct.org using Arial

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That said, font choice is important.

dConstruct holding page using Arial.

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daringfireball.net



daringfireball.net

2010.dconstruct.org using Reader

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Subtle improvement – now using Reader, designed by our neighbours Colophon. Difference is almost subconscious, but none-the-less differentiates from what else is out there.



'Avalokana' is a Sanskrit word.
It means 'to see, observe or review'.
We are a communication design firm
based out of Ahmedabad, India.

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We thrive on creating books of value. We are looking at visually rich books, which have international viability. We love writing as much as we love designing. We enjoy doing all the things that fall in-between too. [Read more.](#)



Identity

In the good ol' days branding meant putting a hot iron stamp on your cattle. Then they wouldn't get confused with anyone else's. Branding, at the most basic level, seeks to give a sense of ownership and belonging. [Read more.](#)



Editorial

Its easy to over-design a page, so it looks great, but is hard to read. Editorial design, at its best, commands restraint. In a world full of printed words, every publication seeks its own voice. We spend time to hear those voices. [Read more.](#)



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Indian design firm using Georgia, which is lovely, but it's everywhere



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Books

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So they chose to use Calluna instead



GREAT IDEAS TRAVEL. DO YOU?



The first global mobile network is about to change the way you use your phone forever. It's Tru. ▶

The Tru SIM

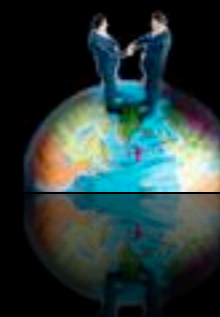
Join the network that makes it as easy and affordable to stay in contact abroad as it does at home. contact abroad as it does at home. easy and affordable to stay in join the network that makes it as



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www.truphone.com



The Tru story

Get to know us a little better and find out more about the world's first global mobile network. first global mobile network. find out more about the world's Get to know us a little better and

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But then you start to see what webfonts can really do.


Truphone using Heavy and Light weights of Bliss. The problems I mention earlier are solved.



All feet are not created equal.

NIKE N7

Through Nike's N7 initiative, we have built an environmentally friendly performance shoe to address the specific width and fit requirements for the Native American foot. Where diabetes is prevalent in this community, this shoe will help combat it by encouraging and improving exercise. Where there's a shoe, there's a way.

[Learn more](#) 

www.nikebetterworld.com

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Nike using Din Display Thin for headline and Din Display Light for body copy, and a custom font for the heading.

Looks stunning – like print work, which is no bad thing because the site is properly interactive and has been built solidly to adapt to its screen environment.

GFS Baskerville

ελληνικά – open type

Γράφειν δήμος εἰκὼν Εὐρώτα

ΛΙΓΑ ΛΟΓΙΑ ΓΙΑ ΤΗ BASKERVILLE

Ο John Baskerville (1706-1775) ασχολήθηκε αργά στη ζωή του με την τυπογραφία, αλλά παρόλα αυτά το έργο του υπήρξε σημαντικό. Δραστήριος εἰχειρηματίας και ανήσυχο πνεύμα ωφέλησε την τυπογραφία τόσο σε αισθητικό όσο και σε τεχνολογικό επίπεδο. Πραγματοποίησε πολλές καινοτομίες στην εκτύπωση, την κατασκευή χαρτιού και μελάνης και υπήρξε τελειομανής σε κάθε εγχείρημα που αναλάμβανε. Ασχολήθηκε επισταμένα με τη σχεδίαση τυπογραφικών χαρακτήρων και η λατινική γραμματοσειρά του, με την οποία τύπωσε μία έκδοση του Βιργιλίου το 1757, εντυπώσισε τους τυπογράφους και το βιβλιόφιλο κοινό σε όλη την Ευρώπη και την Αμερική. Αργότερα, ο Baskerville επιχείρησε τον σχεδιασμό ελληνικών χαρακτήρων τα οποία χρησιμοποίησε για τη στοιχειοθεσία της Καινής Διαθήκης το 1763 για το Πανεπιστήμιο της Οξφόρδης. Ο σχεδιασμός της γραμματοσειράς ακολουθούσε την απλοποίηση της ελληνικής τυπογραφικής κάσας, αποφεύγοντας τα πολυάριθμα συμπλέγματα, αλλά οι σχετικά στενές αναλογίες των στοιχείων δεν κέρδισαν την αποδοχή του βρετανικού κοινού και δεν ξαναχρησιμοποιήθηκε. Παρόλα αυτά έντονοι απόηχοί της μπορούν να αναγνωριστούν στα ελληνικά στοιχεία του Giambattista Bodoni στην Ιταλία και εμμέσως σε αυτά του Firmin Didot στη Γαλλία.

Η ψηφιοποίηση της γραμματοσειράς έγινε από τη Σοφία Καλαϊτζίδου και τον Γιώργο Ματθιόπουλο.

www.greekfontsociety.org

A FEW WORDS ABOUT BASKERVILLE

John Baskerville (1706-1775) got involed in typography late in his career but his contribution was significant. He was a successful entrepreneur and possessed an inquiring mind which he applied to produce many aesthetic and technical innovations in printing. He invented a new ink formula, a new type of smooth paper and made various improvements in the printing press. He was also involved in type design which resulted in a latin typeface which was used for the edition of Virgil, in 1757. The quality of the type was admired throughout of Europe and America and was revived with great success in the early 20th century. Baskerville was also involved in the design of a Greek typeface which he used in an edition of the New Testament for Oxford University, in 1763. He adopted the practice of avoiding the excessive number of ligatures which Alexander Wilson had started a few years earlier but his Greek types were rather narrow in proportion and did not win the sympathy of the philologists and other scholars of his time. They did influence, however, the Greek types of Giambattista Bodoni. and through him Didot's Greek in Paris.

The typeface has been digitally revived as GFS Baskerville Classic by Sophia Kalaitzidou and George D. Matthiopoulos and is now available as part of GFS' type library.

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Apart from visual design reasons, one of the drivers for font linking is for non–Latin texts.

cf. The Greek Font Society, creating a range of new fonts introducing greek character set to classic faces like this Baskerville.



Non-Latin Greek

☒ All

☐ Serif 104

☐ Sans Serif 154

☐ Slab Serif 58

☐ Script 52

☐ Display 255

☒ Non-Latin 16

☐ Arabic 1

☐ Armenian 1

☐ Cyrillic 6

☐ Greek 10

☐ Hebrew 1

Sample Text:

A A

Sort by:

Showing 1–10 of 10 fonts

Beau Sans Pro 14 styles

Τη γλώσσα μου έδωσαν ελληνική το σπίτι

Din Display Pro 12 styles

Τη γλώσσα μου έδωσαν ελληνική το σπίτι φ

Square Sans Pro 12 styles

Τη γλώσσα μου έδωσαν ελληνική το σπίτι φ

Centro Sans Pro 8 styles

Τη γλώσσα μου έδωσαν ελληνική το σπίτι ο

Greek Tags

1930s angular bauhaus
bernhard gothic calligraphic
centro clean computer
contemporary corporate
cyrillic czech din
display flexy futuristic
garalde greek grotesque
heavy legible magazine
modern old style
punchcut romantic round
rounded signage simple
soft spurless square
square sans super family
text transitional trendy
true italics valentine
venetian wedge serif

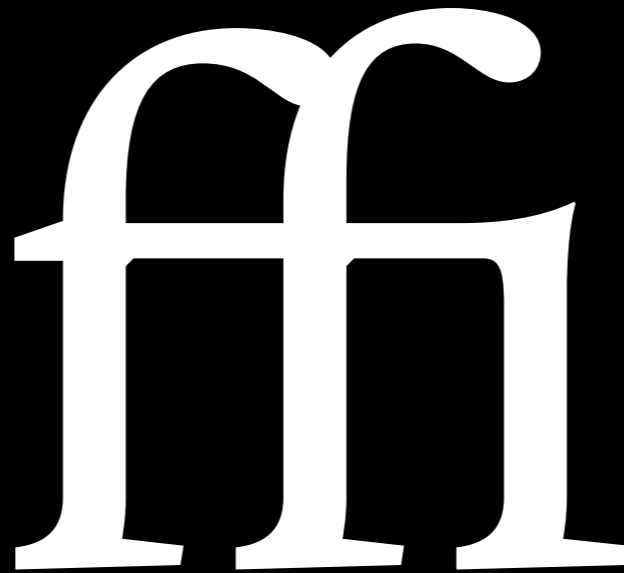
fontdeck.com/typfaces/nonlatin/greek

centro sans pro 8 styles

square sans super family

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Fontdeck has some **modern** Greek typefaces.

A large, white, stylized ligature 'ff' centered on a black background. The ligature is a classic blackletter or gothic style, with the two 'f's joined together. The first 'f' has a large, rounded bowl and a long, thin stem that curves slightly to the left. The second 'f' is smaller and sits on the same baseline as the first, with its bowl overlapping the first 'f's stem. The overall shape is symmetrical and elegant.

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So what else is new?

Ligatures. Special characters formed automatically from the combination of letters, usually to improve legibility (in Latin scripts).

Calibri	0123abcdefgHJKlmnopQRStuv
Cambria	0123abcdefgHJKlmnopQRStu
Candara	0123abcdefgHJKlmnopQRStu
Constantia	0123abcdefgHJKlmnopQRStu
Corbel	0123abcdefgHJKlmnopQRStuv

Sunday, 13 March 2011

Core web fonts designed not to need them, but with ability to use font linking, and also the growing distribution of Microsoft's C fonts, ligatures are here.



Calibri	0123456789abcdefghijklmnopqrstuvwxyz
Cambria	0123456789abcdefghijklmnopqrstuvwxyz
Candara	0123456789abcdefghijklmnopqrstuvwxyz
Constantia	0123456789abcdefghijklmnopqrstuvwxyz
Corbel	0123456789abcdefghijklmnopqrstuvwxyz

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Note the ligatures (fi)

affloat fine fjords

Sunday, 13 March 2011

Why important?

Baskerville italic. Ligatures turned off. fs crash into the following letter.

affloat fine fjords

Sunday, 13 March 2011

Ligatures turned on. fs joined with following letter. subtle but its one of the small details I was talking about.

```
h1 {  
  text-rendering: optimizeLegibility;  
}
```

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Supported by Safari and Firefox.

Turns on common ligatures (there are others – will come to those).

On by default in Firefox on Mac at all sizes, and from 20px upwards on Firefox Windows.
Need to turn on in Safari – off by default for performance reasons (esp Mobile Safari).

Actually an SVG property. But there's a CSS way to ligatures on and off as well.

6.3 Ligatures: the `font-variant-ligatures` property

Name:	<i>font-variant-ligatures</i>
Value:	normal inherit [<common-lig-values> <additional-lig-values> <historical-lig-values>]
Initial:	normal
Applies to:	all elements
Inherited:	yes
Percentages:	N/A
Media:	visual
Computed value:	as specified

Specifies control over which ligatures are enabled or disabled. A value of 'normal' implies that the defaults set by the font are used.

`<common-lig-values>` = [common-ligatures | no-common-ligatures]
`<additional-lig-values>` = [additional-ligatures | no-additional-ligatures]
`<historical-lig-values>` = [historical-ligatures | no-historical-ligatures]

Individual values have the following meanings:

common-ligatures
Enables display of common ligatures (OpenType feature: `liga`). For OpenType fonts, common ligatures are enabled by default.

fi ► fi

no-common-ligatures
Disables display of common ligatures (OpenType feature: `liga`).

additional-ligatures
Enables display of additional ligatures (OpenType feature: `dlig`).

acts ► aċts

no-additional-ligatures
Disables display of additional ligatures (OpenType feature: `dlig`).

historical-ligatures
Enables display of historical ligatures (OpenType feature: `hlig`).

tʒ ► ʒ

no-historical-ligatures
Disables display of historical ligatures (OpenType feature: `hlig`).

Required ligatures, needed for correctly rendering complex scripts, are not affected by the settings above.

<http://dev.w3.org/csswg/css3-fonts/>

Sunday, 13 March 2011

There is a CSS property to turn ligatures on and off too.
Need to turn to CSS 3 Fonts Module.

Ligatures are OpenType features, which in one sense introduces logic programming into font files. If an i follows and f replace the i and the f with a ligature.

Ligatures are optional in Latin but required in Arabic and Indic scripts.

OpenType features have now made it into an Editors draft of the CSS3 Fonts Module. So its coming and at a relatively swift W3C pace (last updated last week) and now seems pretty stable.

ff fl ffl fi ffi fb fk
ff fl ffl fi ffi fb fk

Sunday, 13 March 2011

Ligatures in Calluna. Firefox automatically renders these – you can't stop that on a Mac.

But as designers we want control.

```
h1 {  
    font-family: Calluna, Georgia, serif;  
    font-variant-ligatures: common-ligatures;  
}  
  
p {  
    font-family: Calluna, Georgia, serif;  
    font-variant-ligatures: no-common-ligatures;  
}
```

Sunday, 13 March 2011

font-variant-ligatures property.

Turn on or off common ligatures.

st ip it ck gi fj ap qu OO
ſt îp ît ċk ġi fj ſp qu Œ

Sunday, 13 March 2011

I've been talking about common ligatures.

There are more.

Calluna has alternative, or 'discretionary' ligatures.

```
h1 {  
font-family: Calluna, Georgia, serif;  
font-variant-ligatures: common-ligatures additional-ligatures;  
}
```

Sunday, 13 March 2011

Also turn on additional ligatures.



Sunday, 13 March 2011

Ligatures gone mad in Zapfino. Typing in InDesign with common, contextual alternative and discretionary ligatures turned on.

Majestic

Majestic

Sunday, 13 March 2011

Not just some character combinations, but entire alphabets. Such as these stylistic alternates in Majestic Mishmash, designed by Emil Bertell of Fenotype.

```
h1 {  
  font-family: "Majestic Mishmash", Georgia, serif;  
  font-variant-alternates: stylistic(1);  
}
```

Sunday, 13 March 2011

Stylistic font variants.

affloat fine fjords

affloat fine fjords

Sunday, 13 March 2011

There's other sorts of alternates too. Like these swash alternates in Redisturbed designed by Jeremy Tankard.

```
h1 {  
  font-family: "Redisturbed", serif;  
  font-variant-ligatures: common-ligatures;  
  font-variant-alternates: swash(1);  
}
```

Sunday, 13 March 2011

Use font-variant-alternates again, but with the swash value.

Values for font-variant-alternates mapped to OpenType features

stylistic(n)	<i>salt n</i>
contextual	<i>calt, clig</i>
no-contextual	<i>calt, clig</i>
historical-forms	<i>hist</i>
styleset(01–20)	<i>ss01–ss02</i>
character-variant(01–99)	<i>cv01–cv99</i>
swash(n)	<i>swsh n</i>
contextual-swash(n)	<i>cswh n</i>
ornaments(n)	<i>ornm n</i>
annotation(n)	<i>nalt n</i>

Sunday, 13 March 2011

Lots of values paired with pre-defined OpenType features

0123456789

0123456789

Sunday, 13 March 2011

Let's look at more: number case. This is Calluna's Lining and Old Style numerals.

```
h1 {  
    font-family: Calluna, Georgia, serif;  
    font-variant-numeric: oldstyle-nums;  
}
```

Sunday, 13 March 2011

font-variant-numeric to turn on old style numerals

	Lining	Old Style
Proportional	409,280	409,280
	367,112	367,112
	155,068	155,068
	171,792	171,792
Tabular	409,280	409,280
	367,112	367,112
	155,068	155,068
	171,792	171,792

```
table {  
    font-family: Calluna, Georgia, serif;  
    font-variant-numeric: lining-nums tabular-nums;  
}
```

Sunday, 13 March 2011

Can also turn on tabular numbers with lining numbers.
Suitable for a table.

10¹/₂

```
h1 {  
  font-family: Calluna, Georgia, serif;  
  font-variant-numeric: diagonal-fractions slashed zero;  
}
```

Sunday, 13 March 2011

Can also turn on proper fractions and slashed zeros.



marketplace.veer.com/merch/vpr0001260

Sunday, 13 March 2011

font-kerning

All quality fonts have kerning tables which nudge letter combinations closer together or further apart.

World Wide Web
World Wide Web
World Wide Web
World Wide Web

Top: Kerned; Bottom: Unkerned

Sunday, 13 March 2011

The web has only had kerning for a year or so.

Top: Kerned; Bottom: Not kerned

Note the capital Ws in the Baskerville Italic, bottom row

```
h1 {  
  font-kerning: none;  
}
```

Sunday, 13 March 2011

Kerning should be on by default, but you can turn it off.

Incidentally letter-spacing adjustments are made after kerning has been applied.

```
h1 {  
  text-rendering: optimizeLegibility;  
}
```

Sunday, 13 March 2011

Back to our text-rendering property again.

Supported by Safari and Firefox.

Turns on kerning as well as common ligatures.

font-feature-settings

Sunday, 13 March 2011

Ok. Confession.

All of the kerning, alternates, and ligatures properties... theres no support for them yet. But there is starting to be support for what they do, using this. Supported in Firefox 4

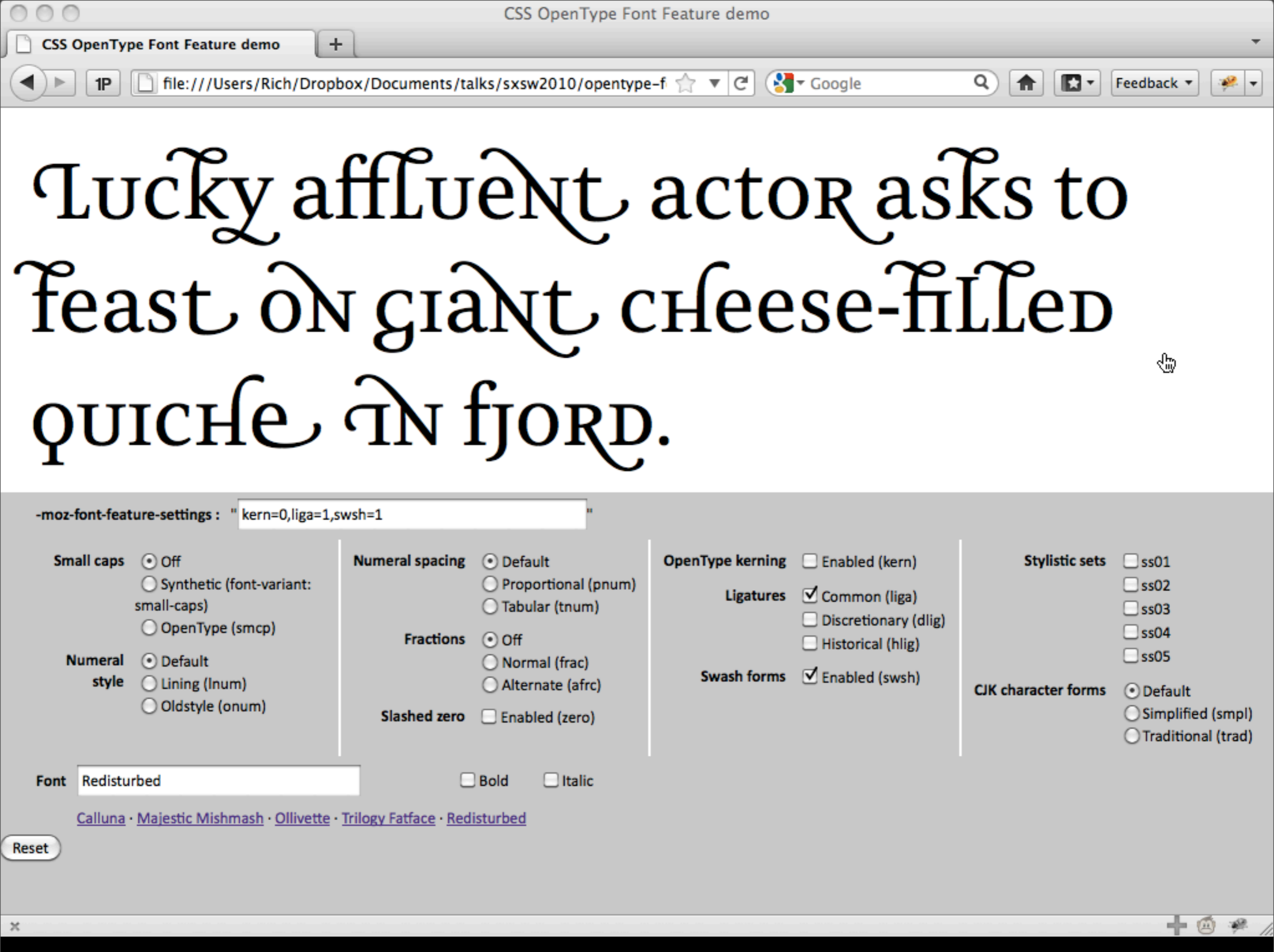
low-level control over font features. Is another way to access OpenType properties (particularly those without their own CSS property).

Can be used for all the font-variant properties previously mentioned.

```
h1 {  
  font-feature-settings:"liga=1, dlig=1, lnum=1, tnum=1";  
}
```

Sunday, 13 March 2011

List of OpenType values.



Sunday, 13 March 2011

Cue demo in Firefox 4

font-size-adjust

Sunday, 13 March 2011

font-size-adjust

very useful for keeping consistency in font sizes
only supported by Firefox but currently in the CSS3 Fonts Module

```
h1 {  
  font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
}
```

*Sequatur nullumte numsan vitae ed
ullutat irilla volorerici; nim
aliquatem velenisit veros.*

Sunday, 13 March 2011

Set in Bickham Script

```
h1 {  
  font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
}
```

*Sequatur nullum numquam
vitae edullutur irilla
volorerci; nim
aliquatem velenisit
veros.*

Sunday, 13 March 2011

Same size but set in Snell Roundhand. Metrics completely different.

```
h1 {  
  font-family:"Bickham Script Std", "Snell Roundhand", cursive;  
  font-size-adjust:0.19;  
  /* aspect ratio of x-height to text height */  
}
```

*Sequat nullute numsan vitae ed
ullutat irilla volorerci; nim
aliquatem velenisit veros.*

*Sequat nullute numsan
vitae ed ullutat irilla
volorerci; nim aliquatem
velenisit veros.*

*Sequat nullute numsan vitae ed
ullutat irilla volorerci; nim
aliquatem velenisit veros.*

*Sequat nullute numsan vitae ed ullutat irilla
volorerci; nim aliquatem velenisit veros.*

Sunday, 13 March 2011

With font-size-adjust, the text is resized accordingly.
line-height stays the same, and em calculations arent affected

$$s = (a / a) s$$

s = font-size value

a = aspect value specified by font-size-adjust property

a = aspect value of actual font

s = adjusted font-size to use

Sunday, 13 March 2011

font-size-adjust

very useful for keeping consistency in font sizes

only supported by Firefox but currently in the CSS3 Fonts Module

Useful for webfonts too.

ele- phant

Sunday, 13 March 2011

The elephant in the room is hyphenation.

ele- phant

“The definition of the
hyphenation feature is
very much up-in-the-
air at the moment.”

Sunday, 13 March 2011

CSS 3 Text Module had this to say:

“The definition of the hyphenation feature is very much up-in-the-air at the moment.”

If there’s no spec, in today’s climate there’s pretty much no chance of it getting into browsers.

6. Hyphenation

Hyphenation allows the controlled splitting of words to improve the layout of paragraphs. CSS3 Text does not define the exact rules for hyphenation, but defines six properties and an at-rule that influence hyphenation.

Whether hyphenation is applied can controlled with the 'hyphens' property.

6.1. Hyphenation Control: the 'hyphens' property

Name:	<i>hyphens</i>
Value:	none manual auto all
Initial:	manual
Applies to:	all elements
Inherited:	yes
Percentages:	N/A
Media:	visual
Computed value:	specified value

This property controls whether hyphenation is allowed to create more break opportunities within a line of text. Values have the following meanings:

none

Words are not broken at line breaks, even if characters inside the word suggest line break points.

manual

Words are only broken at line breaks where there are characters inside the word that suggest line break opportunities. Characters can be explicit or conditional.

auto

Words can be broken at appropriate hyphenation points either as determined by hyphenation characters inside the word or as determined automatically by a language-appropriate hyphenation resource (such as those provided via '@**hyphenation-resource**'). Explicit hyphenation characters inside a word take priority over automatic resources when determining hyphenation points within the word.

all

All possible hyphenation points, as would be determined for '**auto**', are marked. The visual appearance of the mark is UA-dependent. This value is intended for debugging. **Do we really need this value?**

~~Correct automatic hyphenation requires a hyphenation resource appropriate to the language of the text being broken. The UA is~~

But look what we have now!

Working draft of CSS 3 **Text** Module published on 3 weeks ago with hyphenation.

Proposed Hyphenation Properties

Hyphenation Control: the `hyphens` property

Hyphens: the `hyphenate-character` property

Hyphenation Character Limits: the `hyphenate-limit-before` and `hyphenate-limit-after` properties

Hyphenation Line Limits: the `hyphenate-limit-lines` and `hyphenate-limit-last` properties

The `@hyphenate-resource` rule

The `hyphenate-resource` property

Sunday, 13 March 2011

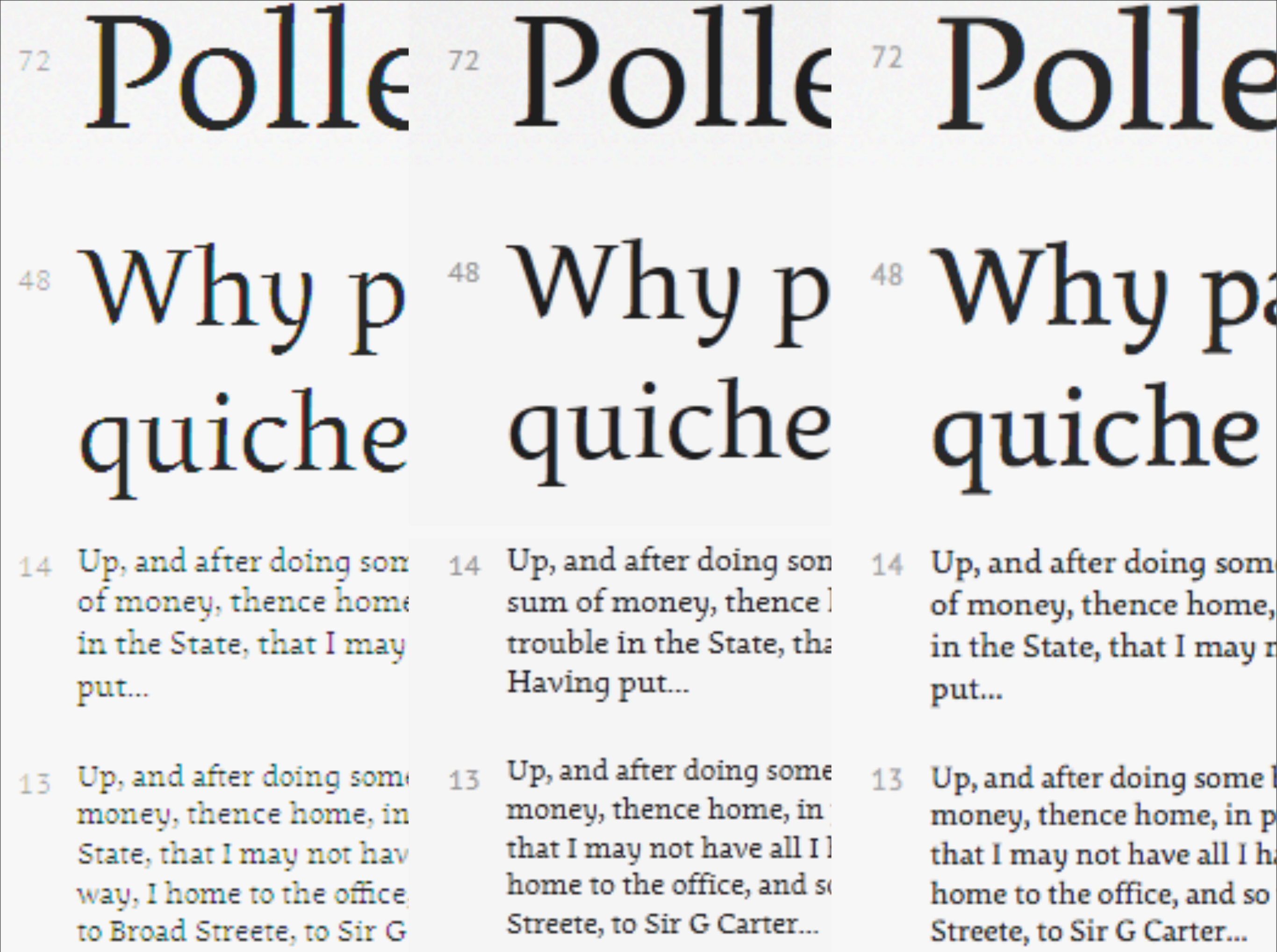
Brilliant! Everything you'd need.



Sunday, 13 March 2011

One final thought about the future. At the beginning I mentioned hi res displays and their impact on web typography.

Not going to be with us for a while, but what is here now is improved rendering on low res displays.



Sunday, 13 March 2011

DirectWrite shown alongside ClearType and OS X. Blown up twice. Really rather good.

Ships with Windows 7 and Vista SP2.
Windows 7 already has about 25% market share.

Richard Rutter Cofounder, Fontdeck.com
@clagnut

<http://webtypography.net/talks/sxsw2011/>

Sunday, 13 March 2011

So that was font weights, font widths, OpenType features and hyphenation.
Some of it we can do now. Some of it we can sort of do now.
Other bits we'll have to wait for.

But there's lot of great typographic enhancements coming in the next few years.
Detail in typography is going to become as important and viable to web designers as
it is to those working in print. And that excites me.

Richard Rutter is cofounder of Fontdeck.com, the professional webfont service.