Typographers' Inn

Peter Flynn

Dashing it off

I recently put up a new version of *Formatting Information* (http://latex.silmaril.ie), and in the section on punctuation I described the difference between hyphens, en rules, em rules, and minus signs.

In particular I explained how to type a spaced dash — like that, using 'dash~---␣like' to put a tie before the dash and a normal space afterwards, so that if the dash occurred near a line-break, it would never end up at the start of a line, only at the end. I somehow managed to imply that a spaced dash was preferable to an unspaced one (probably because it's my personal preference, but certainly not an absolute).

The ensuing discussion on comp.text.tex revealed some curious inconsistencies. Petros Travioli very kindly directed me at the Oxford Dictionaries web site at http://www.oxforddictionaries.com/words/punctuation#dash, which gives examples of an unspaced em-rule, but in the 'Read more' link on that page, we discovered that the examples are actually spaced *en*-rules. This is the practise recommended by Wikipedia's style guide, which says that the em-rule is not spaced; and the APA style guide agrees with them [1, p 97]. Strunk & White use it unspaced, but don't actually mention it; but the Associated Press style guide disagrees and says to use spaces, which is what *TUGboat* does (\thinspace, in fact).

So what authorities say they think is right, and what publishers actually do, can be very different. I just picked up five books I read since the start of the year:

- Sansom, Ian (2012) *Paper: An Elegy.* Fourth Estate (Harper Collins), London, 2012 (**spaces around en rule**).
- Wilson, Bee (2013) *Consider The Fork.* Penguin, London (**spaces around em rule**).
- Jones, Terry and Alan Ereira (2005) *Mediaeval Lives.* BBC Books, London (**spaces around em rule**).
- Sayers, Dorothy (1942) *The Nine Tailors.* Victor Gollancz, London (**unspaced em rule**).
- Banks, Iain M (2003) *The Player of Games.* Orbit (Macmillan), London (**spaces around en rule**).

I suspect that, as with many points of typographic style, you should follow the conventions of your discipline; but if you have free rein, choose whichever style you think best — but be consistent.

Peter Flynn

XELATEX

Back at the ranch, we have been experimenting with XƎLATEX in our workflow, spurred on by two recent requests to use a specific set of OpenType fonts for some GNU/Linux documentation. XƎLATEX offers two major improvements on pdfLATEX: the use of OpenType and TrueType fonts, and the handling of UTF-8 multibyte characters.

Font packages. You can't easily use the font packages you use with pdfLATEX because the default font encoding is EU1 in the fontspec package which is key to using OTF/TTF fonts, rather than the T1 or OT1 conventionally used in pdfLATEX. But late last year Herbert Voß kindly posted a list of the OTF/TTF fonts distributed with TEX Live which have packages of their own for use with XƎLATEX [6].

Table 1: List of font packages supporting XƎLATEX (as of 25 Dec 2015)

accanthis	some Accanthis with CMR
Alegreya	some Alegreya with CMR
AlegreyaSans	some Alegreya Sans with CMSS
cabin	some Cabin with CMSS
caladea	some Caladea with CMR
carlito	some Carlito with CMSS
cinzel	some Cinzel with CMR
ClearSans	some Clear Sans with CMSS
ebgaramond	some EB Garamond with CMR
FiraMono	some Fira Mono with CMTT
FiraSans	some Fira Sans with CMSS
gillius	some Gillius with CMSS
gillius2	some Gillius2 with CMSS
imfellEnglish	some IM FELL English with CMR
libertine	some Libertine with CMR
librebaskerville	some Libre Baskerville with CMR
librecaslon	some Libre Caslon with CMR
LobsterTwo	some Lobster Two with CMR
merriweather	some Merriweather with CMR
mintspirit	some Mint Spirit with CMSS
mintspirit2	some Mint Spirit2 with CMSS
PlayfairDisplay	some Playfair Display with CMR
quattrocento	some Quattrocento with CMR
raleway	some Raleway with CMSS
roboto	some Roboto with CMSS
sourcecodepro	some Source Code Pro with CMTT
sourcesanspro	some Source Sans Pro with CMSS
sourceserifpro	some Source Serif Pro with CMR
universalis	some Universalis with CMSS

These packages, shown in Table 1, work with the \usepackage command in the normal way. The

LATEX Font Catalogue has a separate page at http://www.tug.dk/FontCatalogue/opentypefonts.html for fonts with OpenType support.

So what do you do about all those other font packages not yet adapted to detect that they are being used in XƎLATEX? Individual font specification in XƎLATEX is slightly different to that in pdfLATEX: it requires the fontspec package. This provides three commands which let you specify the three basic families expected by LATEX: \setmainfont, \setsansfont, and \setmonofont (there are also commands for loading individual fonts). The argument is *either* a full fontname like Times New Roman *or* a font filename like Lato-Hairline.ttf, and this is where the fun starts, because both methods have advantages and disadvantages for ease of use and portability.

Full fontnames. There are OTF/TTF replacements for many of the pdfLATEX-oriented package fonts, which can be loaded using the full font name, *including spaces*. The TEX Gyre project has created a set of fonts which work with fontspec, equivalent to the old Adobe '35' which have been a mainstay of desktop publishing for many years (see Table 2).

Table 2: Font names for equivalents of the Adobe PostScript '35' fonts

TeX Gyre Adventor	Avant Garde
TeX Gyre Bonum	Bookman
TeX Gyre Chorus	*Zapf Chancery*
TeX Gyre Cursor	Courier
TeX Gyre Heros	Helvetica
TeX Gyre Pagella	Palatino
TeX Gyre Schola	Century Schoolbook
TeX Gyre Termes	Times

For example, \setsansfont{TeX Gyre Adventor}.

If you need the Microsoft Windows Core Fonts which come with most Windows and Mac systems (available as RPM/DEB packages for GNU/Linux), the names are shown in Table 3.

However, the downside with all the other OTF or TTF fonts already installed on a computer is that the user may not know how to find out the full fontname — it's usually the one shown when you display the system font folder or pull down the font menu in a wordprocessor. The upside is that the full fontname is usually fairly clear and descriptive, and stays built into the font even if you change the filename.

On GNU/Linux systems, where there is no strict rule about where such fonts get installed, you must

Table 3: Font names for using the Microsoft Windows Core Fonts in XƎLATEX

Andale Mono	Andale Mono
Arial	Arial
Arial Black	**Arial Black**
Comic Sans MS	*Comic Sans MS*
Courier New	Courier New
Georgia	Georgia
Impact	**Impact**
Times New Roman	Times New Roman
Trebuchet MS	Trebuchet MS
Verdana	Verdana
Webdings	🖾⬧☂☞🖹➥🏧🖾

For example, \setsansfont{Comic Sans MS}.

use your system's font cache to find a fontname. You create the cache by running the command

```
sudo fc-cache -f -vv
```

You can then use the fc-list command to list the fonts it found (the second colon-separated field) and use a filter like *grep* (1) to find the name you want.

Font filenames. You can also load the font by filename, providing the filetype (extension), location (path), and naming pattern for the font variants as options (see Figure 1).

```
\setmainfont{Lato-Hairline}[Extension=.ttf,
 Path=/usr/share/fonts/truetype/lato/,
 UprightFont=*, BoldItalicFont=*BoldItalic,
 ItalicFont=*Italic, BoldFont=*Bold]
```

Figure 1: Loading a font by filename

The naming pattern uses an asterisk to represent the filename you gave as the main argument to the command; so in the example, the italic variant would be the file named Lato-HairlineItalic.ttf, but you can add whatever punctuation (hyphens, spaces, etc) your filenaming pattern requires. This method is probably better than the fontname if you know the exact places and names of all your font files, because you can tailor the command to suit your own setup.

The disadvantage is that filenames can be different for the same font file across systems, so there is less portability; but the advantage is that it's usually easier to find filenames than to find full fontnames. However, you can also create a .fontspec file which provides the mapping from filename to fontname, so frequent users can make life much easier for themselves.

Typographers' Inn

Logos

Logotypes are typographic designs or glyph variants of more than one letter, but available as a single glyph (originally, cast as a single piece of metal type). *The* in ATF Garamond is one example, and TEX is another.

The TEX and related logos work fine in Computer Modern, but in other faces the spacing needs adjustment, and this is tedious in the extreme when dealing with many fonts in several faces.

There have been several articles on the problem of adjustments [4, 5], not least from Don Knuth [3]; but Karl Berry and Robin Fairbairns parameterised the macros for `\TeX` and other commands in the ltugboat document class, which were tuned for CM by Barbara Beeton, the redoubtable editor of *TUGboat*.

Table 4: Example adjustments to logo settings

Typeface	Font	Normal	Italic	Bold	Bold Italic
Computer Modern	lmr	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***
Bitstream Charter	bch	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***
Avant Garde	pag	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***
Lobster Two	LobsterTwo	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***
Caladea	Caladea	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***
Raleway	Raleway	LaTeX	*LaTeX*	**LaTeX**	***LaTeX***

I have borrowed this code and extended it so that you can specify the kerning either side of the letter E in TEX and the letter A in LaTeX, as well as their vertical displacement and their scale. Three other arguments let you give the font name, font series, and font shape, so that each combination can have its own set of adjustments.

I'll upload a draft of the package (flexlogo) to CTAN once I have a few buglets sorted out.

Afterthought

In this column in *TUGboat* 33:1 [2], I described the problems raised by poorly-broken centered material, especially headings. Hardly a day goes by without me seeing another example, and Figure 2 shows the label from a very fine cheese I brought as a gift to an elderly relative recently. She wanted to know what a 'cheese beech' was... see Figure 2.

<div align="center">
SEMI FIRM CHEESE BEECH
SMOKED ON THE FARM
</div>

Maybe they prepared the text in Word and sent it to the designer, who followed it without question (which is unprofessional), or that the vendor has no clue, and the designer neither (which is not unusual, alas). Would it have killed them to rearrange it?

<div align="center">
SEMI-FIRM CHEESE
BEECH-SMOKED ON THE FARM
</div>

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But most likely, the designer wanted the lines to get shorter so that they followed the curvature of the label.

<div align="center">
SEMI-FIRM CHEESE
BEECH-SMOKED
ON THE FARM
</div>

Three lines was probably too many, but I still think they made a mistake putting vanity of the design above the usability of the text.

Figure 2: Poorly-broken lines in a description

References

[1] American Psychological Association. Publication Manual of the American Psychological Association. Technical report, APA, Washington, DC, Jan 2010.

[2] Peter Flynn. Typographers' Inn — Formatting and centering. *TUGboat*, 33(1):8–9, Jan 2012. `http://tug.org/TUGboat/tb33-1/tb103inn.pdf`.

[3] Donald E. Knuth. The TEX Logo in Various Fonts. *TUGboat*, 7(2):101, Jan 1986. `http://tug.org/TUGboat/tb07-2/tb15knutlogo.pdf`.

[4] Grzegorz Murzynowski. LaTeX vs. LaTeX — a modification of the logo. *TUGboat*, 29(1):180, Jan 2008. 17th European TEX Conference (EuroBachoTEX), Bachotek, Poland. CSTUG, GUST. `http://tug.org/TUGboat/tb29-1/tb91murzynowski-logo.pdf`.

[5] Jacek Rużyczka. `texlogos.sty`: LaTeX package for LaTeX logos. `http://ctan.org/pkg/texlogos`, Jan 2016.

[6] Herbert Voß. Re: XeLaTeX/biblatex - anything missing? `comp.text.tex`, Dec 2015. `de55baFddkaU1@mid.uni-berlin.de`.

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