

Typographers' Inn

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Font tables

Peter Wilson has rightly called me to account for missing out the `fonttable` (two t's) package in the description of my experimental fontable (one t) package [4, p 17].

The `fonttable` package is much more powerful than the one I am [still] working on, and I was so intent on reimplementing the specific requirements of the `allfnt8.tex` file in X_YL^AT_EX to the exclusion of pretty much everything else that I didn't do any justice to `fonttable` (and a number of other test and display tools).

I am expecting shortly to have more time at my disposal to remedy this and other neglected projects.

Monospace that fits

One of the recurrent problems in documentation is finding a suitable monospace font for program listings or other examples of code. I have whittled my own requirements down to something like this:

1. must remain distinct and legible at small sizes (eg `\footnotesize`) because *a*) you might want code in footnotes; or *b*) you might need a small size on special occasions when you need to fit a listing to the page and keep whole lines on single lines (no wrap).;
2. must *not* have a set wider than one alphabet of the body face lowercase, and preferably narrower; that is,
`ABCDEFGHIJKLMNOPQRSTUVWXYZ`
must be the same width or narrower than
`abcdefghijklmnopqrstuvwxy`;
3. must distinguish clearly between zero (0) and capital O, and between lowercase l, digit 1, capital I, and vertical bar (|);
4. may be serif or sans-serif. . . ;
5. . . . but must be distinctly different from the chosen body face;
6. must *not* have any characters with an unusual or unconventional design;
7. must be close but not the same in weight to the chosen body face, so that it is distinct in running text but not disruptive, and so that blocks of code have roughly the same greyness as normal text.

'What's wrong with Computer Modern Typewriter?' I hear some people ask. Actually not much, except for the idiosyncratic @ sign¹ and the set, which is

¹ When I was having the conference mugs printed for the first TUG meeting in Cork in 1990, the company replaced

Table 1: Widths of set for some related serif, sans-serif, and monospace fonts

CMR	abcdefghijklmnopqrstuvwxy	O0 I11
CMSS	abcdefghijklmnopqrstuvwxy	O0 I1
CMTT	abcdefghijklmnopqrstuvwxy	00 I11
PT Serif	abcdefghijklmnopqrstuvwxy	O0 I11
PT Sans	abcdefghijklmnopqrstuvwxy	O0 I1
PT Mono	abcdefghijklmnopqrstuvwxy	00 I11
Libertine	abcdefghijklmnopqrstuvwxy	O0 I11
Biolinum	abcdefghijklmnopqrstuvwxy	O0 I1
Lib. Mono	abcdefghijklmnopqrstuvwxy	00 I11
Plex Serif	abcdefghijklmnopqrstuvwxy	O0 I11
Plex Sans	abcdefghijklmnopqrstuvwxy	O0 I1
Plex Mono	abcdefghijklmnopqrstuvwxy	00 I11
Nimbus Serif	abcdefghijklmnopqrstuvwxy	O0 I11
do. Sans	abcdefghijklmnopqrstuvwxy	O0 I1
do. Mono	abcdefghijklmnopqrstuvwxy	00 I11
do. Mono N	abcdefghijklmnopqrstuvwxy	00 I11
Times	abcdefghijklmnopqrstuvwxy	O0 I11
Helvetica	abcdefghijklmnopqrstuvwxy	O0 I1
Courier	abcdefghijklmnopqrstuvwxy	00 I11
Luxi Mono*	abcdefghijklmnopqrstuvwxy	00 I11

Times, Helvetica, and Courier (unrelated) are included for comparison as they are a common default.

* Luxi Mono set to one `\magstep` smaller than the others.

wider than its Roman sibling (see item 2 in the list on p. 171) but only very little. The problem with width is that in listings, it would be nice to have a narrower font so that fewer long lines need wrapping, while remaining readable. Of those listed in Table 1, the three space-savers are thus CMTT, Nimbus Mono Narrow and possibly Luxi Mono scaled down.

Of course, it's possible to scale any font if needed, and it's common if you're using X_YL^AT_EX to use the `fontspec` package's `Scale=MatchLowercase` option on font specification commands. But while this is important for using the monospace font in running text, listings may need to be in a different size.

Among the various weights, it's clear that Courier is not only wider than most but significantly lighter. Luxi Mono is much closer to the weight of the old Prestige Elite (12-pitch) typewriter face. For the conflicting character forms, Nimbus Mono Narrow has less distinction than most of the others.

It's also a matter of aesthetics, and many people are happiest using what they think looks nice. Personally, I like PT Mono but it's very wide; Libertine Mono reminds me of a golfball I had for the IBM Selectric typewriter once: all the attributes of a serif typeface except the proportional widths; Plex Mono is in some ways very similar in feel to PT Mono

the @ sign in the email address with the copyright symbol ©, which they thought 'looked nicer'. Fortunately I spotted this before they were printed.

despite being unseriffed; Courier I have a personal and unexplained dislike for; so it's down to Luxi and Nimbus from this lot — but there are so many others available too . . .

Centering (reprise)

Talking of ‘projects’, as we shall see, the habit of allowing a wordprocessor centering algorithm to auto-center display material, which I have mentioned before [1, 2, 3] has been popping up all over the place, two of them in my own institution within a month of each other — Figure 1 shows them with the text in question reproduced underneath, as it's probably not clear from the images reproduced at this size.



Figure 1: Centered text with linebreaks: transcription plus suggested breaks

L^AT_EX, like other systems, fits the maximum number of words to the centered line[s], and allows the last line to be short, if necessary. Authors and designers should add manual line-breaks at the logical break-points, especially if there is no proof-reader. In the right-hand example here about a ‘Project [sic] Matching Workshop’, the choice of yellow text on a brightly-coloured background (not visible in monochrome here) manages to make it so hard to read that no-one noticed.

Afterthought

A year or so ago, the Prime Minister of Pakistan came under suspicion of having forged a document it was hoped would clear his family of wrongdoing in a property transaction [6]. The document was dated 2006, but it was set in Calibri, which wasn't publicly released until 2007, although it was available in test versions of Microsoft Office from 2004, including

the new XML version we were all given after the XML conference in Washington, DC, that year. In theory it's possible the Prime Minister's office was represented there . . .

It's by no means the first time a typeface has caused high-level embarrassment: in 2010 a designer working for a French government agency created a logo using a font called Bienvenue. Unfortunately this font was created privately for France Telecom, and isn't supposed to be available to anyone else [5]. The embarrassment was that the office concerned was France's new intellectual property rights agency HADOPI (*Haute Autorité pour la Diffusion des Œuvres et la Protection des droits d'auteur sur Internet*, no less), set up explicitly to ensure copyright and IP enforcement.

Designers and typesetters are often raided and sued over allegations of using typefaces they haven't paid for, and have been fined some very large sums as a result. I don't think any T_EX user would ever do such a thing as use an unlicensed font — especially as there are so many excellent typefaces free of commercial license conditions, but please make sure you're legal. Designing a typeface takes years, and the designers deserve your support.

References

- [1] P. Flynn. Typographers' Inn — Titling and centering. *TUGboat* 33(1), May 2012. tug.org/TUGboat/tb33-1/tb103inn.pdf
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- [4] P. Flynn. Typographers' Inn — Fonts and faces and families. *TUGboat* 39(1), Jun 2018. tug.org/TUGboat/tb39-1/tb121inn.pdf
- [5] Insider Software. Staying Legal: The Challenges of Font License Compliance. insidersoftware.com/downloads/infusionsoft/StayingLegal-FontLicenseCompliance.pdf, Sep 2010.
- [6] B. Kentish. Pakistan's Prime Minister may be brought down by Microsoft's Calibri font amid corruption allegations. *The Independent*, Jul 2017.

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