

About substitute fonts for Latin alphabets

When I started looking at fonts, many web pages preferred specific Windows or OSX fonts (predominantly, Arial, Helvetica, Times, or Times New Roman) and fontconfig attempts to provide alternatives. Now (2024) websites specifying those fonts are much less common.

The fontconfig files include 30-font-metrics.conf. The PDFs in this directory show *some* of the fonts listed there. To quote from that file (after the lists of matching fonts):

“We want for each of them to fallback to any of these available, but in an order preferring similar designs first. We do this in three steps:

- 1) Alias each specific to its generic family. e.g. Liberation Sans to Arial
- 2) Weak alias each generic to the other generic of its family. e.g. Arial to Helvetica
- 3) Alias each generic to its specifics. e.g. Arial to Liberation Sans, Arimo, Albany, and Albany AMT”

What that means is that **only** the fonts known there will be used as substitutes, and that if you install more than one, only the first match will be used. I happen to like NimbusRomanNo9L as a Times-style font (a question of what languages it covers, and the shape of one uncommon glyph). But I normally install the Liberation fonts. So for me, NimbusRomanNo9L will be used when a page specifies Times, but *not* if it specifies the more-common Times Roman.

I originally used freely-available fonts or MS fonts, the exception was Helvetica where I bought ‘Helvetica LT Pro’ in one weight (the only available Helvetica at that time) to see how it compared. Bookman, Palladio and Century Schoolbook do not seem to be in common web usage. The Zapf Chancery font is script - nice, but no more generally useful than any blackletter or uncial fonts. So although it was a standard PostScript font it does not seem worth documenting for TTF/OTF fonts.

I have ignored Helvetica Condensed, Arial Narrow, and their substitutes.

In general, if a Latin font and its substitutes cannot be found then fontconfig will fall back to fonts listed in 60-latin.conf: for Serif, Sans and Monospace that means Noto if installed, or else DejaVu.

It will correctly fall back to a Serif font for Georgia and Palatino (because they are listed as Serif faces in 45-latin.conf), but it will use Sans for any fonts not listed in that files such as Bookman and New Century Schoolbook if those fonts are requested but not found.

In my past attempts at showing substitutes I apparently used Type 1 fonts to show how certain fonts looked. For this set I am using only TTF fonts (many more are available on github, as I discovered after discarding my old Windows TTFs to save space, but the ‘Century Schoolbook L’ TTF I found online has very different metrics and is not a sensible substitute.

The files here are:

bookman-substitutes - substitutes for ITC Bookman

calibri-substitutes - MS Calibri and its substitute

cambria-substitutes - MS Cambria and its substitute

courier-substitutes - Courier and its substitutes

georgia-substitutes - MS Georgia and its substitute

gothic-substitutes - substitutes for ITC Avant Garde Gothic

helvetica-arial-substitutes - helvetica, arial, substitutes

palatino-substitutes - some substitutes for Palatino

schoolbook-substitutes - a substitute for New Century Schoolbook

times-roman-substitutes - substitutes for Times, Times New Roman