Some thoughts on typescripts

Mojca Miklavec, the 4th ConTExt meeting

When writing or adapting typescripts for the excellent Polish fonts (or any other font for that matter), I sometimes lack a few features. I will try to highlight some of them and do a quick comparison between ConTExt (traditional, simplefonts) and \LaTeX{} (NFSS, fontspec) in a short talk, followed by discussion.

Disclaimer:

- This presentation may not be “politically correct” at all the places: I’m not confident with all the font-related terms and please feel free to report any errors that you might find. I would like you to consider this presentation as an introduction to brainstorming about what could be improved.
- It would probably require modifications of some parts of ConTExt core in order to support the functionality mentioned here.
- There is no sample code available.
Motivation

For both novice and some experienced \TeX users there are two areas where GUI programs are much easier to use:

- **TABLES**: partially covered in another talk
- **FONTS**: I will try to cover some aspects of that here

What makes fonts difficult to use?

- user has no simple overview of available fonts
  in Word it's just a drop-down menu
- in pre-X\TeX era one needed complicated procedures for font conversion
  – zillions of files and encodings that had to be put on proper place
  – 256-character limitation
  – clumsy names
  in Word it’s ready-to-use
- in Word bold and *italic* work out of the box
  in \TeX one needs to spend an afternoon before all the names get properly assigned
What revolution did XƎTEX bring?

• a lot of nice functionality that will not be our main focus here (like multidirectional writing, Unicode, support for exotic scripts, . . .)

• in my opinion THREE aspects revolutionized & simplified font selection enormously:

  1. support for standard font formats: OpenType, AAT, . . . & advanced features
  2. support for system fonts (C:\Fonts, fontconfig) – works out of the box, no need for any advanced knowledge about TEXMF trees
  3. automatic recognition of Regular / Bold / Italic / Bold Italic & Small Caps

and as a consequence:

  1. no conversion, no additional files
  2. no need to move files around once you install the font
  3. complex .fd file/typescript replaced by oneliner:

\setmainfont{TeX Gyre Bonum} (fontspec)
\definetypeface[bonum][rm][Xserif][TeX Gyre Bonum] (ConTeXt with XƎTEX)
**Differences between X\TeX{} and Lua\TeX{}**

- Lua\TeX{} also knows a lot (including names) about fonts in `texmf` trees
- X\TeX{} only knows filenames of those fonts (but could use some info provided by Lua\TeX{})
- X\TeX{} is slightly better integrated into system (knows about special folders where users ‘hide’ their fonts)
- Lua\TeX{} should be capable of extracting a bit more heuristics about fonts (extended etc.)

**Different approaches for font handling**

<table>
<thead>
<tr>
<th></th>
<th>pdf\TeX{}</th>
<th>\texttt{X\TeX{}}</th>
<th>Lua\TeX{}</th>
</tr>
</thead>
<tbody>
<tr>
<td>plain \TeX{}</td>
<td>\texttt{\font\a=ec-lmr12}</td>
<td>\texttt{\font\a=\textsc{Times;+smcp}}</td>
<td>lua-based</td>
</tr>
<tr>
<td>\LaTeX{}</td>
<td>NFSS</td>
<td>fontspec</td>
<td>fontspec</td>
</tr>
<tr>
<td>Con\TeX{}</td>
<td>typescripts</td>
<td>[Xserif][Times]</td>
<td>simplefonts</td>
</tr>
</tbody>
</table>
NFSS – New Font Selection Scheme


- used in 8-bit engines in \LaTeX
- five attributes: \texttt{encoding}, \texttt{family}, \texttt{series}, \texttt{shape}, \texttt{design size}
- \texttt{series} is a combination of \texttt{weight} and \texttt{width} with predefined values
- I like the system & its flexibility to select fonts:

\begin{verbatim}
  \fontfamily{ccr}\fontseries{c}\fontshape{sl}\fontsize{9}{11pt}\selectfont
\end{verbatim}

but not the complexity of writing .fd files (example from t1anttlc.fd):

\begin{verbatim}
  \DeclareFontShape{T1}{anttlc}{ebx}{n}{<->ec-anttb}{}
  ... (32 lines)
  \DeclareFontShape{T1}{anttlc}{sbx}{scit}{<->ec-anttricap}{}
\end{verbatim}

Antykwa Toruńska contains 1504 such lines (64 files) to cover 32 fonts in 11 encodings.

\footnotesize

1 series: ‘medium weight’, ‘bold extended’, …
2 shape: regular, italic, slanted, upright
3 weight: ul-Ultralight, el-Extralight, l-Light, sl-Semilight, m-Medium, sb-Semibold, b-Bold, eb-Extrabold, ub-Ultra-bold
4 width: uc-Ultracondensed, ec-Extracondensed, c-Condensed, sc-Semicondensed, m-Medium, sx-Semiexpanded, x-Expanded, ex-Extraexpanded, ux-Ultraexpanded

To combine the abbreviations, weight is used first and any instance of medium (m) is dropped except when weight and width are both medium. In this care one single m is used.
Fontspec

http://github.com/wspr/fontspec/

• probably the most important package for X\LaTeX, also for Lua\LaTeX
• revolutionary powerful & easy to use
• written with users, not with developers in mind (like NFSS)
• support calling font names with automatic bold/italic assignments, file names, setting path
  where fonts reside, explicitly defining which font files to use, advanced and non-cryptic
  dealing with OpenType features, full support for optical sizes, …
• some examples:
  − \texttt{\fontspec\{Cambria\}}
  − \texttt{\fontspec[Path = /Users/will/Font/\, ,}
  − \hspace{1em}\texttt{UprightFont = *-regular ,}
  − \hspace{1em}\texttt{BoldFont = *-bold ,}
  − \hspace{1em}\texttt{... ]}
  − \texttt{\{texgyrepagella\}}
• Anyone feels like writing \texttt{m-fontspec.tex}? :)}
Simplefonts

(they deserve more attention, but I ran out of time . . .)
What I miss in ConT\TeX t font handling?

- no easy way to switch to Bold Italic Caps
  I would like to use \texttt{\textbackslash section\{Titles with \{\texttt{\textsc{Small Caps}}\}\}} reliably even when \texttt{\setuphead[section][style=\bsb]} (might already be possible?)

- no standard way to use Condensed, Extended, Semi Bold, \ldots
  - thus there are no predefined typescript to simplify life
  - lengthy new definitions are needed
  - or we would end up with exponential number of predefined ones

- writing typescripts without Wolfgang’s module is way too cumbersome:
  I would be glad to have less overhead

- Wolfgang’s module only works with \texttt{mkiv} and would not handle messy fonts properly:
  human brain is still needed from time to time to help ConT\TeX t know more about fonts
Proposal – Hypercubes (font properties in higher dimensions)

Mandatory & with known meaning:

- **shape** (Regular / Italic / Slanted) – italic & slanted falling back to each other if one undefined
- **weight** (Light / Regular / Medium / Bold / Heavy / . . . ) – arbitrary names; user just selects a pair to be associated with rm & bf at runtime (like: Medium-Heavy)

Optional & with known meaning:

- **encoding** – only for mkii (if supported at all)
- **caps** (Regular / Small Caps) – in mkiv this should work automatically

Fully optional, with arbitrary names & arbitrary number of them:

- **size** (Caption / Regular / Subhead / Display) or (6pt / 8pt / 10pt / 12pt / 17pt) – the meaning might be known in case that automatic optical sizes are to be supported
- **width** (Condensed / Semi Condensed / Regular / Semi Extended / Extended / . . . )
- **anything** (Any / Name / That / Comes / To / Mind) – as long as keys and values are predefined in typescript with [anything={any,name,that,comes,to,mind}].
### JMN Antykwa Półtawskiego

<table>
<thead>
<tr>
<th>weight</th>
<th>width</th>
<th>shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td>Condensed</td>
</tr>
<tr>
<td>Regular</td>
<td></td>
<td>Regular</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>Semi Condensed</td>
</tr>
<tr>
<td>Bold</td>
<td></td>
<td>Regular</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semi Extended</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extended</td>
</tr>
</tbody>
</table>

Total number of fonts:

\[ 4 \cdot 5 \cdot 2 = 40 \]
\startsomenewfonttypescriptcommand % complete typescript

[antykwa-poltawskiego] % font name
[width={condensed,semicondensed,*regular,semiextended,extended}] % optional (1)
[weight={light,*regular,medium,*bold}] % mandatory (2)
[shape={regular,italic}] % mandatory

{ % condensed
   {AntPoltLtCond-Regular.otf, AntPoltLtCond-Italic.otf}, % light
   {AntPoltCond-Regular.otf, AntPoltCond-Italic.otf}, % regular
   {AntPoltMdCond-Bold.otf, AntPoltMdCond-BoldItalic.otf}, % medium
   {AntPoltCond-Bold.otf, AntPoltCond-BoldItalic.otf} % bold
},

{ % semicondensed
   {AntPoltLtSemiCond-Regular.otf, AntPoltLtSemiCond-Italic.otf}, % light
   {AntPoltSemiCond-Regular.otf, AntPoltSemiCond-Italic.otf}, % regular
   {AntPoltMdSemiCond-Bold.otf, AntPoltMdSemiCond-BdItalic.otf}, % medium
   {AntPoltSemiCond-Bold.otf, AntPoltSemiCond-BoldItalic.otf} % bold
},

{ % regular
   {AntPoltLt-Regular.otf, AntPoltLt-Italic.otf}, % light
   {AntPolt-Regular.otf, AntPolt-Italic.otf}, % regular
   {AntPoltMd-Bold.otf, AntPoltMd-BoldItalic.otf}, % medium
   {AntPolt-Bold.otf, AntPolt-BoldItalic.otf}, % bold
},

{ % semiextended
   {AntPoltLtSemiExtd-Regular.otf, AntPoltLtSemiExtd-Italic.otf}, % light
   {AntPoltSemiExtd-Regular.otf, AntPoltSemiExtd-Italic.otf}, % regular
   {AntPoltMdSemiExtd-Bold.otf, AntPoltMdSemiExtd-BdItalic.otf}, % medium
   {AntPoltSemiExtd-Bold.otf, AntPoltSemiExtd-BoldItalic.otf} % bold
},

{ % extended
   {AntPoltLtExtd-Regular.otf, AntPoltLtExtd-Italic.otf}, % light
   {AntPoltExtd-Regular.otf, AntPoltExtd-Italic.otf}, % regular
   {AntPoltMdExtd-Bold.otf, AntPoltMdExtd-BoldItalic.otf}, % medium
   {AntPoltExtd-Bold.otf, AntPoltExtd-BoldItalic.otf}, % bold
}
\stopsonewfonttypescriptcommand
Usage

\textbf{switchtofontdimension}\{width=semi-condensed,weight={light,medium}\}
\textit{\texttt{\textbackslash rm} This is Semi Condensed Light (AntPoltLtSemiCond-Regular.otf)}
\textit{\texttt{\textbackslash it} This is Semi Condensed Light Italic (AntPoltLtSemiCond-Italic.otf)}
\textit{\texttt{\textbackslash sl} This is the same as italic.}
\textit{\texttt{\textbackslash bf} This is Semi Condensed Medium (AntPoltMdSemiCond-Bold.otf)}
\textit{\texttt{\textbackslash bi} This is Semi Condensed Medium Italic (AntPoltMdSemiCond-BdItalic.otf)}
\textit{\texttt{\textbackslash bs} This is the same as bold italic.}
Pro et contra

Advantages:

• full order
• arbitrary number of dimensions
• once the order is there, any font switching scheme on top of that could be built
• only a single typescript → many different combinations possible with one-liners
• uses human brain to order fonts, everything else is done by computer
  – close-to-zero overhead
  – no vendor-specific heuristics are needed: less errors in ‘just guessing’

Disadvantages:

• holes in fonts need to be filled completely (with fallbacks)

Not covered by the example:

• applying different font features to different fonts
  – one could use AntPoltLt-Regular.otf*default
• intermediate names
  – one could use AntykwaPoltawskiegoRegular=AntPoltLt-Regular.otf
  – Serif could be deduced automatically
• optical sizes as in LM (I can try to elaborate that)
‘Quick’ typescripts

If there is no predefined typescript, there must be an extra-quick way to set up the font:

\definesomenewfonttypescript \texttt{\% 'quick' typescript}
\texttt{[my-antitykwa-poltawskiego] \texttt{\% font name}}
\texttt{[rm=AntPoltLtSemiCond-Regular.otf,}}
\texttt{it=AntPoltLtSemiCond-Italic.otf,}
\texttt{bf=AntPoltMdSemiCond-Bold.otf,}
\texttt{bi=AntPoltMdSemiCond-BdItalic.otf]}

The following is \texttt{fontspec}'s syntax (I like the idea a lot):

\texttt{\fontspec}
\texttt{[BoldFont=AntPoltMdSemiCond-Bold.otf,}
\texttt{ItalicFont=AntPoltLtSemiCond-Italic.otf,}
\texttt{BoldItalicFont=AntPoltMdSemiCond-BdItalic.otf]}
\texttt{\{AntPoltLtSemiCond-Regular.otf\}}
The old way

How many lines are needed to do the same in MKII or MKIV at the moment?

\starttypescript [serif] [my antykwa poltawskiego] \%
AP=AntykwaPoltawskiego, SC=SemiCondensed
\definefontsynonym [AP SC Light] [file:AntPoltLtSemiCond-Regular] [features=default]
\definefontsynonym [AP SC LightItalic] [file:AntPoltLtSemiCond-Italic] [features=default]
\definefontsynonym [AP SC Medium] [file:AntPoltMdSemiCond-Bold] [features=default]
\definefontsynonym [AP SC MediumItalic] [file:AntPoltMdSemiCond-BdItalic] [features=default]
\definefontsynonym [AP SC CapsRegular] [file:AntPoltLtSemiCond-Regular] [features=smallcaps]
\definefontsynonym [AP SC CapsItalic] [file:AntPoltLtSemiCond-Italic] [features=smallcaps]
\definefontsynonym [AP SC CapsMedium] [file:AntPoltMdSemiCond-Bold] [features=smallcaps]
\definefontsynonym [AP SC CapsMediumItalic] [file:AntPoltMdSemiCond-BdItalic] [features=smallcaps]
\stoptypescript

\starttypescript [serif] [my antykwa poltawskiego] [name]
\definefontsynonym [Serif] [AP SC Light]
\definefontsynonym [SerifBold] [AP SC Medium]
\definefontsynonym [SerifItalic] [AP SC LightItalic]
\definefontsynonym [SerifSlanted] [AP SC LightItalic]
\definefontsynonym [SerifBoldItalic] [AP SC MediumItalic]
\definefontsynonym [SerifBoldSlanted] [AP SC MediumItalic]
\definefontsynonym [SerifCaps] [AP SC CapsRegular]
\%
And how to use Bold Italic Small Caps?
\stoptypescript

I find this method too cumbersome to use …
JMN Antykwa Półtawskiego (for pdfTeX)

<table>
<thead>
<tr>
<th>weight</th>
<th>width (opt. size)</th>
<th>shape</th>
<th>encoding</th>
<th>caps</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>Condensed (17)</td>
<td></td>
<td>cs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi Condensed (12)</td>
<td></td>
<td>ec</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regular (10)</td>
<td></td>
<td>l7x</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>Semi Extended (8)</td>
<td></td>
<td>qx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extended (6)</td>
<td></td>
<td>t5</td>
<td></td>
</tr>
<tr>
<td>Bold</td>
<td></td>
<td></td>
<td>textnansi (ts1)</td>
<td></td>
</tr>
</tbody>
</table>

Total number of fonts:\n\[4 \cdot 5 \cdot 2 \cdot 6 \cdot 2 + 4 \cdot 5 \cdot 2 \cdot 1 \cdot 1 = 520\]

\[^6\text{ts1 encoding doesn't need small caps}\]
\startsomenewfonttypescriptcommand

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpl17, \texttt{\textbackslash t2\textbackslash antpli17}}, \{\texttt{\textbackslash t2\textbackslash antpl17-sc, \texttt{\textbackslash t2\textbackslash antpli17-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpr17, \texttt{\textbackslash t2\textbackslash antpri17}}, \{\texttt{\textbackslash t2\textbackslash antpr17-sc, \texttt{\textbackslash t2\textbackslash antpri17-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpm17, \texttt{\textbackslash t2\textbackslash antpmi17}}, \{\texttt{\textbackslash t2\textbackslash antpm17-sc, \texttt{\textbackslash t2\textbackslash antpmi17-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpb17, \texttt{\textbackslash t2\textbackslash antpb17}}, \{\texttt{\textbackslash t2\textbackslash antpb17-sc, \texttt{\textbackslash t2\textbackslash antpb17-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpl12, \texttt{\textbackslash t2\textbackslash antpli12}}, \{\texttt{\textbackslash t2\textbackslash antpl12-sc, \texttt{\textbackslash t2\textbackslash antpli12-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpr12, \texttt{\textbackslash t2\textbackslash antpri12}}, \{\texttt{\textbackslash t2\textbackslash antpr12-sc, \texttt{\textbackslash t2\textbackslash antpri12-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpm12, \texttt{\textbackslash t2\textbackslash antpmi12}}, \{\texttt{\textbackslash t2\textbackslash antpm12-sc, \texttt{\textbackslash t2\textbackslash antpmi12-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpb12, \texttt{\textbackslash t2\textbackslash antpb12}}, \{\texttt{\textbackslash t2\textbackslash antpb12-sc, \texttt{\textbackslash t2\textbackslash antpb12-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpl10, \texttt{\textbackslash t2\textbackslash antpli10}}, \{\texttt{\textbackslash t2\textbackslash antpl10-sc, \texttt{\textbackslash t2\textbackslash antpli10-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpr10, \texttt{\textbackslash t2\textbackslash antpri10}}, \{\texttt{\textbackslash t2\textbackslash antpr10-sc, \texttt{\textbackslash t2\textbackslash antpri10-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpm10, \texttt{\textbackslash t2\textbackslash antpmi10}}, \{\texttt{\textbackslash t2\textbackslash antpm10-sc, \texttt{\textbackslash t2\textbackslash antpmi10-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpb10, \texttt{\textbackslash t2\textbackslash antpb10}}, \{\texttt{\textbackslash t2\textbackslash antpb10-sc, \texttt{\textbackslash t2\textbackslash antpb10-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpl8, \texttt{\textbackslash t2\textbackslash antpli8}}, \{\texttt{\textbackslash t2\textbackslash antpl8-sc, \texttt{\textbackslash t2\textbackslash antpli8-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpr8, \texttt{\textbackslash t2\textbackslash antpr8}}, \{\texttt{\textbackslash t2\textbackslash antpr8-sc, \texttt{\textbackslash t2\textbackslash antpr8-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpm8, \texttt{\textbackslash t2\textbackslash antpmi8}}, \{\texttt{\textbackslash t2\textbackslash antpm8-sc, \texttt{\textbackslash t2\textbackslash antpmi8-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpb8, \texttt{\textbackslash t2\textbackslash antpb8}}, \{\texttt{\textbackslash t2\textbackslash antpb8-sc, \texttt{\textbackslash t2\textbackslash antpb8-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpl6, \texttt{\textbackslash t2\textbackslash antpli6}}, \{\texttt{\textbackslash t2\textbackslash antpl6-sc, \texttt{\textbackslash t2\textbackslash antpli6-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpr6, \texttt{\textbackslash t2\textbackslash antpri6}}, \{\texttt{\textbackslash t2\textbackslash antpr6-sc, \texttt{\textbackslash t2\textbackslash antpri6-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpm6, \texttt{\textbackslash t2\textbackslash antpm6}}, \{\texttt{\textbackslash t2\textbackslash antpm6-sc, \texttt{\textbackslash t2\textbackslash antpm6-sc}}\}\}}\]

\[\text{\{\text{\texttt{\textbackslash t2\textbackslash antpb6, \texttt{\textbackslash t2\textbackslash antpb6}}, \{\texttt{\textbackslash t2\textbackslash antpb6-sc, \texttt{\textbackslash t2\textbackslash antpb6-sc}}\}\}}\]

\textbf{\startssomenewfonttypescriptcommand}
Or an even faster way to define 480 fonts at once (can you beat it?):

\startsomefonttypescriptcommand
  [antyka–poltawskiego]
  [encoding={cs,ec,l7x,qx,t5,texnansi},replace=self] \% 2
  [width={condensed,semicondensed,*regular,semiextended,extended},replace={17,12,10,8,6}] \% 3
  [weight={light,*regular,medium,*bold},replace={l,r,m,b}] \% 4
  [caps={no,yes},replace={,sc}] \% 5
  [shape={regular,italic},replace={,i}] \% 6
  \{{\t2}-\antp{\t4}{\t6}{\t3}{\t5}\}
\stopsofonttypescriptcommand

The \t2 stand for what is currently known as \typescripttwo etc.
## Adobe Kepler® Std Opticals

<table>
<thead>
<tr>
<th>weight</th>
<th>width</th>
<th>opt. size</th>
<th>shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Light</td>
<td>Condensed</td>
<td>Caption</td>
<td>Regular</td>
</tr>
<tr>
<td>Regular</td>
<td>Semi-condensed</td>
<td>Regular</td>
<td>Italic</td>
</tr>
<tr>
<td>Medium</td>
<td>Regular</td>
<td>Subhead</td>
<td></td>
</tr>
<tr>
<td>Semibold</td>
<td>Extended</td>
<td>Display</td>
<td></td>
</tr>
<tr>
<td>Bold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total number of fonts: 6 \cdot 3 \cdot 4 \cdot 2 + 6 \cdot 1 \cdot 2 \cdot 2 = 168

---

7 Condensed width has only two optical sizes (Subhead and Display – in implementation Caption and Regular would fall back on Subhead).
\startsomefonttypescriptcommand
[kepler]
[width={condensed,semi-condensed,regular,extended}]
% caption < 10pt <= regular < 12pt <= subhead < 17pt <= display
% without switch=... one needs to switch manually with [size=display]
[size={caption,*regular,subhead,display},switch={10pt,12pt,17pt}]
[weight={light,*regular,medium,semibold,*bold,black}]
[shape={regular,italic}]
{ % condensed
...
}, { % semi-condensed
  { % caption
    {KeplerStd-LightScnCapt.otf, KeplerStd-LightScnItCapt.otf}, % light
    {KeplerStd-ScnCapt.otf, KeplerStd-ScnItCapt.otf}, % regular
    {KeplerStd-MediumScnCapt.otf, KeplerStd-MediumScnItCapt.otf}, % medium
    {KeplerStd-SemiboldScnCapt.otf, KeplerStd-SemiboldScnItCapt.otf}, % semibold
    {KeplerStd-BoldScnCapt.otf, KeplerStd-BoldScnItCapt.otf}, % bold
    {KeplerStd-BlackScnCapt.otf, KeplerStd-BlackScnItCapt.otf} % black
  }, { % regular
    ...
  }, { % subhead
    ...
  }, { % display
    ...
}
}, { % regular
  ...
}, { % regular
  ...
}, { % extended
  ...
}
\stopsomewfonntypescriptcommand
Linotype Neue Helvetica®

<table>
<thead>
<tr>
<th>weight</th>
<th>width</th>
<th>shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Ultra Light</td>
<td>Condensed</td>
<td>Regular Oblique/Italic</td>
</tr>
<tr>
<td>Thin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra Black</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total number of fonts\(^8\): \(8 \cdot 3 \cdot 2 + 1 \cdot 1 \cdot 2 = 50\).

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\(^8\) Extra Black only in Condensed width
\startsomefonttypescriptcommand
[helvetica-neue]
[width={condensed,*regular,extended}]
[weight={ultralight,thin,light,*regular,medium,*bold,heavy,black,extrablack}]
[shape={regular,italic}]{
  % condensed
  {HelveticaNeueLTStd-UltLtCn.otf, HelveticaNeueLTStd-UltLtCnO.otf}, % Ultra Light
  {HelveticaNeueLTStd-ThCn.otf, HelveticaNeueLTStd-ThCn0.otf}, % Thin
  {HelveticaNeueLTStd-LtCn.otf, HelveticaNeueLTStd-LtCn0.otf}, % Light
  {HelveticaNeueLTStd-Cn.otf, HelveticaNeueLTStd-Cn0.otf}, % Regular
  {HelveticaNeueLTStd-MdCn.otf, HelveticaNeueLTStd-MdCn0.otf}, % Medium
  {HelveticaNeueLTStd-BdCn.otf, HelveticaNeueLTStd-BdCn0.otf}, % Bold
  {HelveticaNeueLTStd-HvCn.otf, HelveticaNeueLTStd-HvCn0.otf}, % Heavy
  {HelveticaNeueLTStd-BlkCn.otf, HelveticaNeueLTStd-BlkCn0.otf}, % Black
  {HelveticaNeueLTStd-XBlkCn.otf, HelveticaNeueLTStd-XBlkCn0.otf}, % Extra Black
},
% regular
{HelveticaNeueLTStd-UltLt.otf, HelveticaNeueLTStd-UltLtIt.otf}, % Ultra Light
{HelveticaNeueLTStd-Th.otf, HelveticaNeueLTStd-ThIt.otf}, % Thin
{HelveticaNeueLTStd-Lt.otf, HelveticaNeueLTStd-LtIt.otf}, % Light
{HelveticaNeueLTStd-Roman.otf, HelveticaNeueLTStd-It.otf}, % Regular
{HelveticaNeueLTStd-Md.otf, HelveticaNeueLTStd-MdIt.otf}, % Medium
{HelveticaNeueLTStd-Bd.otf, HelveticaNeueLTStd-BdIt.otf}, % Bold
{HelveticaNeueLTStd-Hv.otf, HelveticaNeueLTStd-HvIt.otf}, % Heavy
{HelveticaNeueLTStd-Blk.otf, HelveticaNeueLTStd-BlkIt.otf}, % Black
{<fallback, probably 'XBlkCn'>, <fallback, probably 'XBlkCn0'>} % Extra Black
},
% extended
...
}
\stopfonttypescriptcommand
\startsomenewfonttypescriptcommand % the same typescript, but with full style names
[helvetica-neue] % instead of cryptic file names; just for illustration
[width={condensed,*regular,extended}]
[weight={ultralight,thin,light,*regular,medium,*bold,heavy,black,extrablack}]
[shape={regular,italic}]{
  % Condensed
  {27 Ultra Light Condensed, 27 Ultra Light Condensed Oblique}, % Ultra Light
  {37 Thin Condensed, 37 Thin Condensed Oblique}, % Thin
  {47 Light Condensed, 47 Light Condensed Oblique}, % Light
  {57 Condensed, 57 Condensed Oblique}, % Regular
  {67 Medium Condensed, 67 Medium Condensed Oblique}, % Medium
  {77 Bold Condensed, 77 Bold Condensed Oblique}, % Bold
  {87 Heavy Condensed, 87 Heavy Condensed Oblique}, % Heavy
  {97 Black Condensed, 97 Black Condensed Oblique}, % Black
  {107 Extra Black Condensed, 107 Extra Black Condensed Oblique} % Extra Black
},
  % Regular
  {25 Ultra Light, 26 Ultra Light Italic}, % Ultra Light
  {35 Thin, 36 Thin Italic}, % Thin
  {45 Light, 46 Light Italic}, % Light
  {55 Roman, 56 Italic}, % Regular
  {65 Medium, 66 Medium Italic}, % Medium
  {75 Bold, 76 Bold Italic}, % Bold
  {85 Heavy, 86 Heavy Italic}, % Heavy
  {95 Black, 96 Black Italic}, % Black
  {<fallback>}, % Extra Black
},
  % Extended
  ...
}
\stopsomenewfonttypescriptcommand