Fonts, more than a sample

how to use the fonts shown in the font sampler
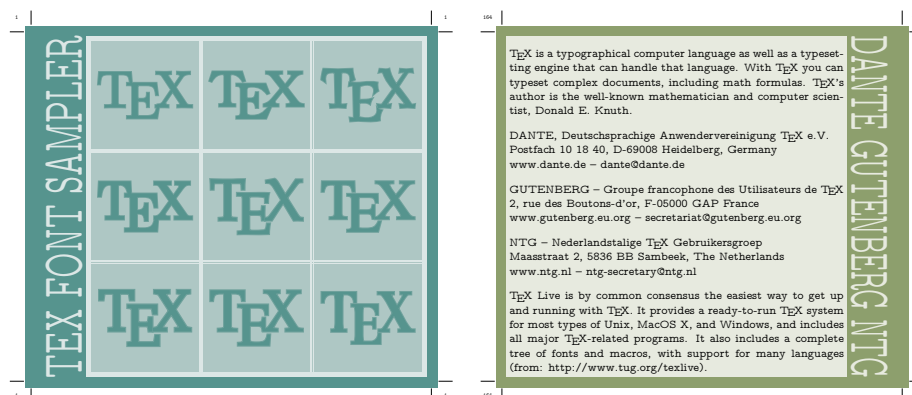
Some time ago the NTG members received a colorful little booklet showing a lot of fonts. Since these fonts come with TeXlive a ConTeXt user may be tempted to use them. The bad news is that fonts are always a bit troublesome in TeX distributions and recent changes in the TeX directory structure haven't made life easier. However, the good news is that it is doable to get these fonts working for you. Here I will present a few recipes, but I avoid discussing the 'dirty details'. These are covered in the manuals.

Let's assume that you have a recent version of ConTeXt on your system. In that case, you can set up Palatino as follows:

```
\usetypescript[palatino][\defaultencoding]
```

after this you can choose this font with:

```
\setupbodyfont[palatino,10pt]
```

This Palatino typescript is defined as follows (in `type-exa.tex`):

```
\starttypescript [palatino] [texnansi,ec,8r,t5,uc]

  \definetypeface [palatino] [rm] [serif] [palatino]
      [default] [encoding=\typescripttwo]
  \definetypeface [palatino] [mm] [math]  [palatino]
      [default] [encoding=default]
  \definetypeface [palatino] [tt] [mono]  [modern]
      [default] [encoding=\typescripttwo,rscale=1.075]
```

```
\stoptypescript
```

So, in fact we have a combination of Palatino Roman, Palatino Math and Computer Modern Typewriter fonts. From this definition you may conclude that other combinations can be made as well.
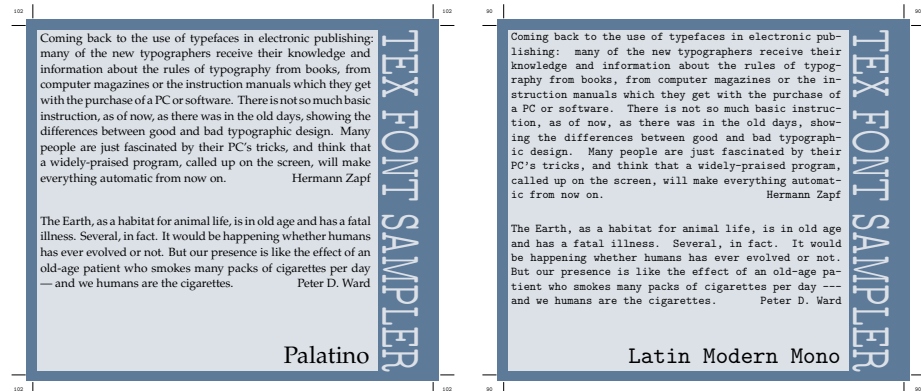

```
\usetypescript[times][\defaultencoding]
```

This will provide you with a combination of Times Roman, Times Math, Helvetica and Computer Modern Typewriter. If you really want Courier, you can choose

```
\usetypescript[postscript][\defaultencoding]
```

In one document you can mix such font collections. When you define your own collection, you need to be aware of the fact that they may need relative scaling. In the Famous Postscript Three, the Helvetica is scaled to 90% of Times, and Courier is 10% larger than Times.

As demonstrated in the font booklet, Palatino and Times have companion math fonts. A fourth alternative is the Fourier/Utopia combination:

```
\usetypescript[fourier][\defaultencoding]
```

For this to succeed, you need to copy the Utopia fonts from the additional `texmf-extra` tree to the main `texmf` tree or one of your local trees.

In addition to these fonts, there are a few more on TEXlive. These can be defined as follows:

```
\definetypeface[nicefont][rm][serif][schoolbook][default][encoding=ec]
```

This means as much as: define a typeface called `nicefont`, and use for its roman incarnation the serif `schoolbook`. Some font families have serif as well as sans versions so we need that detail. We define the default styles and sizes and use `ec` encoding.

The next definition also defines `nicefont` but this time we use Bookman for serif and Chancery as calligraphic.

```
\definetypeface[nicefont][rm][serif]     [bookman] [default][encoding=ec]
\definetypeface[nicefont][cg][calligraphy][chancery][default][encoding=ec]
```

The calligraphic variant in the `nicefont` typeface is activated with (for instance):

```
\setuptypeface[nicefont,cg,11pt]
```

Of course, when making a booklet like the font sampler, a few more tricks are involved. For instance, we use some special encodings in order to access the umlauts in the German sample texts. When you look carefully, you will also notice that hanging punctuation is used.
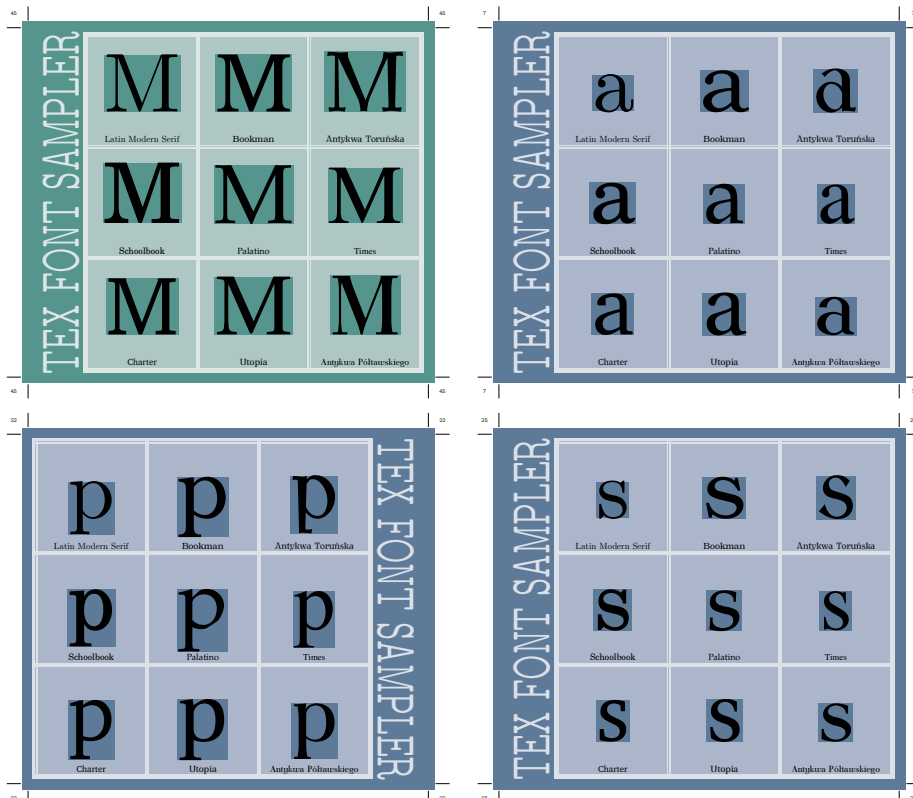
We execute the typescript:

```
\usetypescript[serif][hanging][pure]
\stoptypescript
```

which comes down to:

```
\starttyping
\setupfontsynonym [Serif]              [handling=pure]
...
\setupfontsynonym [SerifBoldSlanted] [handling=pure]
```

Next we define a typeface:

```
\usetypescript[palatino][\defaultencoding]
```

Now we can enable hanging punctuation and switch to that font:

```
\setupbodyfont[palatino,10pt]
\setupalign[hanging]
```

In a similar fashion one can enable *hz* optimization (aka font expansion). You can control both mechanisms in several ways, and we will dedicate a manual to that once pdftex's font extensions are stable.

There are two kinds of possible errors indicating that something is wrong with your system or definitions.

When during the run, TeX complains that it cannot find a TFM file, this means that either the file is not present on your system, or that you asked for an encoding that has no associated metrics (yet).

Assuming that you use EC encoding, you can try one of the following:

```
\usetypescript[berry][ec]
```

This tells ConTEXt that it should map its internal font names on the eight character based naming scheme found on most distributions. Beware, other encodings may not be present on your system.

While the previous command maps fonts like Times and Palatino on the URW metrics, the next command will use metrics related to the Adobe fonts.

```
\usetypescript[adobekb][ec]
```

The URW fonts come with TEXlive, while the Adobe fonts normally live in printers, browsers and operating resources (what font is actually used, depends on your machine and configuration).

If you use TEXFONT to generate your metrics you don't need these commands. You can put these preferences in your local `cont-sys.tex` file.

When TEX does not abort on an error, but the log mentions that the font cannot be embedded, this can be due to a missing encoding file (happens rarely), a missing map file (more possible) or a missing PFB file (often due to a map file problem).

ConTEXt prefers to load map files at run time because this works best in more complex situations or when you install your own fonts. In your local copy of `cont-sys.tex` you can configure this. In its original `cont-sys.rme` you can read how to do this. Nowadays ConTEXt comes preconfigured for loading map files on demand. Future versions will further hide this nasty aspect of font usage.

More information on installing fonts can be found at

```
http://www.pragma-ade.com/general/manuals/mfonts.pdf
http://www.pragma-ade.com/general/manuals/mtexfont.pdf
http://contextgarden.net
http://home.salamander.com/~wmcclain/context-help.html
```

Examples of fonts in action can be found at:

```
http://www.pragma-ade.com/general/manuals/showfont.pdf
http://www.pragma-ade.com/specials/fonts/fontspecial-s.pdf
```

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