Support for Mac fonts in PDFTeX on Mac OS X

GTA

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1 Introduction

Gerben Wierda's redistribution of the TeX-system now has an addition that provides basic support for some of the most popular fonts that come with Apple's operating system OS X 10.4. This support has been created by GTA[1].

The fonts can be used both with LaTeX and with ConTeXt and only with PDFTeX[2]. They are not compatible with packages that rely on PostScript features (such as `microtype` or `pstricks`).

1.1 Requirements

The tool fondu has to be installed on your system (there's an i-Installer package for it).

2 Use with LaTeX

You have to use either T1 or LY1 ('texnansi') output-encoding:

```
\usepackage[T1]{fontenc}
\usepackage{textcomp}
```

or (recommended)

---

[1] **G**erben C. Th. Wierda, **T**homas A. Schmitz and **A**dam T. Lindsay

[2] Since the fonts are in TrueType format.

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```
\usepackage{texnansi}
```

There are four Apple fonts that can be used as serif bodyfonts in your documents: Baskerville, Didot, Georgia, and Hoefler Text. You use these fonts by putting one of these lines into the preamble of your documents:

```
\usepackage{gtamacbaskerville}
```

```
\usepackage{gtamacdidot} % Default lining numbers, or
\usepackage[osf]{gtamacdidot} % Default old-style numbers
```

```
\usepackage{gtamacgeorgia}
```

```
\usepackage{gtamachoefler} % Default lining numbers, or
\usepackage[osf]{gtamachoefler} % Default old-style numbers
```

These packages also set sans and mono styles in a scaling that fits with the serif font and in the combinations:

Serif	Sans	Mono	Math
Baskerville	Optima	LM	CM
Didot	Optima	LM	CM
Georgia	Verdana	LM	CM
Hoefler	Gill Sans	LM	CM

The packages `gtamachoefler` and `gtamacdidot` offer the capability to set oldstyle figures as default. If you want this option set, call them like this:

```
\usepackage[osf]{gtamachoefler}
```

Didot has oldstyle figures *only* in its regular, Roman shape, *not* in italic or bold.

2.1 Expert use with LaTeX

There are seven Apple fonts that can be used as sans fonts in your documents: Futura, FuturaCondensed, GillSans, HelveticaNeue, LucidaGrande, Optima, and Verdana. Since these fonts will usually accompany a serif font, users can set a scaling factor so that serif and sans font have a typographically pleasing proportion. scale=1 corresponds to the design size of the font, scale=1.1 would magnify it to 110 %; scale=0.95 would shrink it to 95 %. You use these fonts by adding one of these lines into the preamble of your documents after your basic choice:

```
\usepackage[scale=1]{gtamacgillsans}

\usepackage[scale=1]{gtamacfutura}

\usepackage[scale=1]{gtamacfuturacondensed}

\usepackage[scale=1]{gtamachelveticaneue}

\usepackage[scale=1]{gtamaclucidagrande}

\usepackage[scale=1]{gtamacoptima}

\usepackage[scale=1]{gtamacverdana}
```

There is one Apple font that can be used as a typewriter font in your documents: AmericanTypewriter. The package has a scaling factor as well:

```
\usepackage[scale=1]{gtamacamericantypewriter}
```

These sans and mono packages can be used to override the choices in the main packages.

3   Use with ConTEXt

There are numerous typescripts provided for use with ConTEXt. You may combine them with your own `\definetypeface` command (preferred), or use them in various pre-defined combinations, with appropriate scaling. The `texnansi` and `ec` encodings are available for each font. LucidaGrande has a little bit extra available, because of its wide glyph coverage.

To use the Mac fonts, add the following to the setup of your document or your ConTEXt environment (example for Baskerville given):

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[Baskerville][ec] % or texnansi
\setupbodyfont[Baskerville,12pt]
```

Available typescripts are:

These typescripts also set sans and mono styles in a scaling that fits with the serif font and in the combinations:

Serif	Sans	Mono	Math
Baskerville	Optima	LM	CM
Didot	Optima	LM	CM
Georgia	Verdana	LM	CM
Hoefler	Gill Sans	LM	Palatino
Georgia	**Lucida Grande**	LM	Times
AmericanTypewriter	Helvetica Neue	LM	Euler
AmericanTypewriter Light	Helvetica Neue Light	Courier	CM
AmericanTypewriter Condensed	Futura Condensed	LM Condensed	Euler

so, normally, only setting the serif font will be enough. In detail:

3.1   Hoefler

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[Hoefler][texnansi] % or ec
\setupbodyfont[Hoefler]
```

Hoefler Text as the main `\rm` font, accompanied by Gill Sans (scaled at 96%) as the `\ss` font, Palatino math (scaled at 90%) and Latin Modern as the `\tt` font. Hoefler Text has true small caps and old style numbers available.

To use the old style numbers by default:

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[HoeflerOldStyle][ec] % or texnansi
\setupbodyfont[HoeflerOldStyle,12pt]
```

To switch between small caps and/or number styles, one can use the font variants mechanism of ConTEXt. Use `\Var[sc]` to switch to small caps and `\Var[osf]` to switch to old style numbers and `\Var[reset]` to switch back.

3.2   American Typewriter

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[AmericanTypewriter][texnansi] % or ec
\setupbodyfont[AmericanTypewriter]
```

American Typewriter as the main `\rm` font, accompanied by Helvetica Neue (scaled at 97%) as the `\ss` font, Euler math (scaled at 106%) and Latin Modern (scaled at 115%) as the `\tt` font. American Typewriter has no italic, only a bold.

3.3 American Typewriter Light

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[AmericanTypewriterLight][texnansi] % or ec
\setupbodyfont[AmericanTypewriterLight]
```

American Typewriter Light as the main \rm font, accompanied by Helvetica Neue Light (scaled at 97%) as the \ss font, Latin Modern (scaled at 115%) math and Courier (scaled at 115%) as the \tt font.

3.4 American Typewriter Condensed

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[AmericanTypewriterCondensed][texnansi] % or ec
\setupbodyfont[AmericanTypewriterCondensed]
```

American Typewriter Condensed as the main \rm font, accompanied by Futura Condensed as the \ss font, Euler math (scaled at 105%) and Latin Modern Condensed (scaled at 115%) as the \tt font. Futura Condensed's italic does not have a condensed width.

3.5 Baskerville

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[Baskerville][texnansi] % or ec
\setupbodyfont[Baskerville]
```

Baskerville as the main \rm font, accompanied by Optima (scaled at 87%) as the shapely \ss font that blends very seamlessly with Baskerville, Latin Modern (scaled at 93%) math and Latin Modern (scaled at 93%) as the \tt font.

3.6 Didot

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[Didot][texnansi] % or ec
\setupbodyfont[Didot]
```

Didot as the main \rm font, accompanied by Optima (scaled at 95%) as the \ss font, Computer Modern math and Latin Modern as the \tt font. Didot has no bold italic, but old-style figures are available in the small caps font.

To use the old style numbers by default:

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[DidotOldStyle][texnansi] % or ec
\setupbodyfont[DidotOldStyle]
```

To switch between small caps and/or number styles, one can use the font variants mechanism of ConTEXt. Use `\Var[sc]` to switch to small caps and `\Var[osf]` to switch to old style numbers and `\Var[reset]` to switch back. Didot has only limited support for these.

3.7 Georgia

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[Georgia][texnansi] % or ec
\setupbodyfont[Georgia]
```

Georgia as the main `\rm` font, accompanied by Verdana (scaled at 88%) as the `\ss` font, Times (scaled at 105%) math and Latin Modern (scaled at 110%) as the `\tt` font. Georgia has old-style figures as intrinsic to the design.

3.8 Lucida Grande

```
\usetypescriptfile[type-gtamacfonts]
\usetypescript[LucidaGrande][texnansi] % or ec, qx, or t5
\setupbodyfont[LucidaGrande]
```

Lucida Grande (scaled at 95%) as the main, `\ss` font, accompanied by Georgia (scaled at 106%) as the `\rm` font, Times (scaled at 110%) math and Latin Modern (scaled at 115%) as the `\tt` font. Because of the way the typescript is defined, the `\ss` font is used by default.

3.9 Expert use with ConTEXt

ConTEXt is very powerful and flexible. This is reflected in the possibilities offered when using GTA. The seven serif typescripts can be used with the `\definetypeface` command. Typical usage is with one of the following:

```
\definetypeface [myface] [rm] [serif] [americantypewriter]
    [default] [encoding=texnansi] % or ec
```

```
\definetypeface [myface] [rm] [serif] [americantypewriter-light]
    [default] [encoding=texnansi] % or ec

\definetypeface [myface] [rm] [serif] [americantypewriter-cond]
    [default] [encoding=texnansi] % or ec

\definetypeface [myface] [rm] [serif] [baskerville]
    [default] [encoding=texnansi] % or ec

\definetypeface [myface] [rm] [serif] [didot]
    [default] [encoding=texnansi] % or ec

\definetypeface [myface] [rm] [serif] [georgia]
    [default] [encoding=texnansi] % or ec

\definetypeface [myface] [rm] [serif] [hoefler]
    [default] [encoding=texnansi] % or ec
```

The nine sans typescripts can similarly be used with the \definetypeface command. Typical usage is with one of the following (in combination with one of the above, or with other fonts already present on your system):

```
\definetypeface [myface] [ss] [sans] [futura]
    [default] [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [futura-cond]
    [default] [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [gillsans]
    [default] [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [gillsans-light]
    [default] [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [helveticaneue]
    [default] [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [helveticaneue-light]
    [default] [rscale=1,encoding=texnansi] % or ec
```

```
\definetypeface [myface] [ss] [sans] [lucidagrande]
    [default] [rscale=1,encoding=texnansi] % or ec, qx, t5

\definetypeface [myface] [ss] [sans] [optima] [default]
    [rscale=1,encoding=texnansi] % or ec

\definetypeface [myface] [ss] [sans] [verdana]
    [default] [rscale=1,encoding=texnansi] % or ec
```

Note the following:

- The `rscale=` parameter, above, is used to match relative x-heights of the glyphs between families. It is a scaling factor as with the LaTeX packages: 1 is 100 % scaling, 0.95 is 95 % scaling.

- The lucidagrande typescripts also have the `qx` (Central European) and `t5` (Vietnamese) encodings available, because the glyphs were there.

- There is an increased focus on sans serif fonts in this package because of their relative scarcity in the TeX world. There are very good, classic, fashionable (and clichéd) sans serif fonts on the Mac, so it made sense to make them available. (Similarly, the serif fonts that contrasted most with the usual free TeX fonts were included here.)

- The typeface combination that you create is then activated with a

    `\setupbodyfont[myface]`

  command.

4   Limitations

Support for these fonts can only be as good and as complete as the fonts themselves. So please be aware that

- No font has *all* the glyphs in the texnansi- and ec-encoding;

- only HoeflerText and Didot have small caps and oldstyle numbers;

- only HoeflerText has expert ligatures for "ffi"and "ffl."