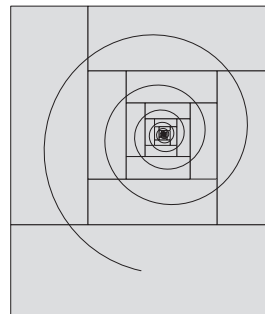


Five years after: Report on international T_EX font projects

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Abstract

Two large font projects are being currently developed by the T_EX user groups: Latin Modern (begun in 2002) and T_EX Gyre. Both aim at greatly increasing the number of diacritical characters in the freely available collections of fonts.

1 Introduction

Since nearly the very beginning of their existence, Adobe's products have been accompanied with a basic collection of fonts, first containing only 13 components, then extended to 35: *ITC Avant Garde Gothic* (4 fonts), *ITC Bookman* (4 fonts), *Courier* (4 fonts), *Helvetica* (8 fonts), *New Century Schoolbook* (4 fonts), *Palatino* (4 fonts), *Times* (4 fonts), *ITC Zapf Chancery Medium* (1 font, italic), *Symbol* (1 font), and *ITC Zapf Dingbats* (1 font). Of course, they were only available under proprietary licenses.

The situation changed in 1996, when L. Peter Deutsch, then the developer and maintainer of the marvelous free PostScript interpreter Ghostscript, released in conjunction with URW++ a free collection of PostScript fonts, being a reasonable replacement for Adobe's 35 (see <http://tug.org/fonts/deutsch-urw.txt>).¹

Within a few years the collection was enhanced with Vietnamese and Cyrillic characters (by Hàn Thế Thành and Valek Filippov, respectively). Still, the repertoire of glyphs present in the fonts was insufficient to meet the needs of those who have to typeset in Latin-based languages.

2 The Latin Modern project

In Spring 2002 (hence the present title), several T_EX user groups launched the *Latin Modern Project*, with the aim of extending the Computer Modern fonts with a rich repertoire of Latin diacritical characters. This resulted in the Latin Modern collection of 92 fonts (72 text and 20 math) in the PostScript

¹ Actually, four URW++ free fonts appeared for the first time in Ghostscript 2.6.1 in 1993.

Type 1 and OpenType formats, (<http://www.gust.org.pl/projects/e-foundry/latin-modern>).

The warm reception of the project (despite various slips, though significantly reduced in number thanks to Karel Píška's continued efforts—see, e.g., his article in these proceedings) encouraged the user groups to make use of the Latin Modern experience to enhance the 35 basic PostScript fonts.

3 The T_EX Gyre project

Already in 1996, immediately after the release of the Ghostscript/URW++ fonts, the Polish T_EX users group, GUST, launched the *Qfonts* project, aimed at supplementing the relevant text fonts from the collection with a set of diacritical characters. The project was suspended after releasing a few fonts—other challenges became more important. However, with the success of the Latin Modern project, the groups supporting it decided to resume the *Qfonts* project, and indeed, greatly broaden its scope. The new incarnation became known as *T_EX Gyre*.

4 Licensing issues

Neither Adobe's nor URW++'s font names could be retained, due to legal issues. Therefore we have coined alternative names as follows:

Origin	PS name	TFM name (kernel)
ITC Avant Garde Gothic	TeXGyreAdventor	qag
ITC Bookman	TeXGyreBonum	qbk
Courier	TeXGyreCursor	qcr
Helvetica	TeXGyreHeros	qhv
Palatino	TeXGyrePagella	qpl
Times	TeXGyreTermes	qtm
New Century Schoolbook	TeXGyreSchola	qcs
ITC Zapf Chancery	TeXGyreChorus	qzc

(Note that the TFM names are, in a way, the legacy of the Qfonts project.)

Some licensing issues are unsolved. For example, it remains an open question whether the T_EX Gyre fonts can be released under the GUST Font License (GFL), a legal equivalent of the L^AT_EX Project Public License (LPPL)—see <http://www.gust.org.pl/projects/fonts/licenses/> and <http://www.latex-project.org/lppl/>.

The user groups are attempting to negotiate an agreement with the donor of the fonts, URW++.

5 The T_EX Gyre fonts

As of this writing, all 33 text fonts from the basic 35 fonts have been released (<http://www.gust.org.pl/projects/e-foundry/tex-gyre/>). Each contains nearly 1200 glyphs, including small caps, old style figures, Cyrillic and Greek. An exception is T_EX Gyre Chorus alias Zapf Chancery, which lacks Greek and small caps; incidentally, using capital forms of Chancery characters for typesetting whole words should be forbidden by law.

Note, however, that Cyrillic and Greek characters were included only provisionally (for the sake of uniformity and backward compatibility) and their quality must be improved as soon as possible. Only in T_EX Gyre Bonum (Bookman) is the Greek of better quality: with the kind permission of Apostolos Syropoulos and Antonis Tsolomitis, we imported the Greek glyphs from the Kerkis collection (<http://iris.math.aegean.gr/kerkis/>).

All fonts are available in OpenType and PostScript Type 1 formats. Of course, T_EX-oriented additions, that is, TFM files for various encodings plus the relevant MAP and ENC files, plus L^AT_EX support, are also provided. At present, the following encodings are available: CS (CSTUG), EC (Cork), L^AX (Lithuanian), QX (GUST), RM (Regular Math or OT1), LY1 (Y&Y aka T_EX'n'ANSI), T5 (Vietnamese), TS1 (Text Companion for EC fonts) T2A, T2B, T2C (Cyrillic). The T_EX Gyre support for ConT_EXt is shipped separately with the ConT_EXt package.

Below are samples of the available fonts:

T_EX Gyre Adventor is available in Regular, SMALL CAPS, **Bold**, *Oblique*, and **Bold Oblique** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Bonum is available in Regular, SMALL CAPS, **Bold**, *Italic*, and **Bold Italic** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789**

23456789 0123456789 abcde ABCDE 0123456789 0123456789

T_EX Gyre Cursor is available in Regular, SMALL CAPS, **Bold**, *Oblique*, and **Bold Oblique** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Heros is available in Regular, SMALL CAPS, **Bold**, *Oblique*, and **Bold Oblique** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Heros Condensed is available in Regular, SMALL CAPS, **Bold**, *Oblique*, and **Bold Oblique** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Pagella is available in Regular, SMALL CAPS, **Bold**, *Italic*, and **Bold Italic** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Schola is available in Regular, SMALL CAPS, **Bold**, *Italic*, and **Bold Italic** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Termes is available in Regular, SMALL CAPS, **Bold**, *Italic*, and **Bold Italic** variants.

abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789 **abcde ABCDE 0123456789 0123456789 abcde ABCDE 0123456789 0123456789**

T_EX Gyre Chorus is available only in the Medium Italic variant: abcde ABCDE 0123456789 0123456789.

6 Plans for the future

There is a lot to do: we plan to add the two remaining non-text fonts (for the sake of completeness), bugs reported so far have to be removed, Cyrillic and Greek are in need of improvement, kerning and hinting should be improved wherever needed, etc.

There are also much broader plans: to incorporate math into the T_EX Gyre collection—a truly serious task. It implies including math information in OpenType fonts and this requires research.

No fear that the T_EX Gyre spiral will ever reach its end...