
GUST e-foundry current font projects

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Abstract

This is a short description of GUST's e-foundry plans for the more or less immediate future. Until now they have not been presented widely, but only in a different form to some LUG boards.

Introduction

For readers not familiar with the GUST e-foundry (<http://www.gust.org.pl/projects/e-foundry>), a list of its achievements follows:

- text fonts: Latin Modern, T_EX Gyre fonts (seven families), Antykwa Półtawskiego, Antykwa Torunska, Kurier, Iwona, Cyklop.
- OTF math fonts (6 of the total 10 free and 3 commercial available): Latin Modern Math, four T_EX Gyre Math fonts (Bonum, Pagella, Schola, Termes), T_EX Gyre DejaVu Math.

Various proposals have been made to the team to do more work based on its members' OTF math fonts expertise. The resulting projects are briefly outlined here.

Math symbols subsets

Define subsets of math symbols for several uses:

- a sans-serif font (with the MATH table and a limited repertoire of glyphs); to be used in headings and slides;
- a heavy font (with the MATH table and a limited repertoire of glyphs); again, to be used in headings and for slides;
- a monospaced font (without the MATH table), to be used with text editors
- a text font for technical texts (in-line references to symbols and quoting of simple formulas without deploying the math fonts machinery);

This is a study project, with no direct deliverables, except for the selection of glyphs. It is, however, prerequisite for most of the following projects.

A sans-serif math OpenType font

Make a sans-serif OpenType math font, based on DejaVu, with an eye on doing the same for other sans-serif fonts; for use in headings.

A heavy math OpenType font

Starting from the heavy version of one of the T_EX Gyre OTF math fonts, possibly T_EX Gyre Termes, with an eye on doing the same for other serif fonts. Also for use in headings.

A monospace font with math symbols

A monospace (text) font enhanced with math symbols without extensibles (a proper subset of math symbols required), most probably DejaVu based; for use in editing and source code. The main difficulties:

- “squeezing” of wide math symbols into the monospaced dimensions;
- the incompleteness of the Unicode standard (e.g., the incomplete set of superscript glyphs) may turn out to be troublesome.

Enhancing the T_EX Gyre text fonts

The T_EX Gyre fonts will certainly benefit from enhancement with a subset of math symbols. Possible (open) problems:

- might require a revision of glyph selection, sans-serif OTF math and heavy OTF math.
- should sans-serif fonts also be enhanced?
- and should they share the same repertoire of extra glyphs?

It makes little sense to enhance the T_EX Gyre Chorus (the Zapf Chancery replacement) font with math oriented glyphs. In addition:

- The fonts do require maintenance;
- until now done only when requests or bug reports were received.

To keep uniformity and spare users unpleasant surprises this must involve all GUST fonts, even when no changes/modifications ensue. This should be done carefully, on a planned schedule; the team proposes regular yearly (calendar) revisions.

Enhancements to existing fonts

The GUST e-foundry's math fonts will profit from being enhanced with math kerns and math oriented features like variant extra alphabets, e.g., double-struck or calligraphic, implemented using the “stylistic set” features, ss01–ss20.

Summary

The priorities will certainly influence the order in which the projects will be tackled, but the glyph selection is the prerequisite.

As there is a considerable amount of work involved in all of these projects, we requested funding from some T_EX user groups. Support has been promised from: NTG, C_STUG, CG (Context Group), DANTE e.V., TUG, GUST (non-material). Given time, the team will work on the projects, even without funds.

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