Missing Unicode/Glyph Feedback Received Regarding STIX Fonts
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Comment: 1D455 (mathematical italic small h?) seems to be missing.

Response: It is at u210E, near some other "Letterlike Characters". That is the Unicode standard way of doing it. (If a particular glyph already exists in Plane 0, the Plane 1 slot is not used.)   (16 November 2007)

Comment: I am a Java developer and have been eagerly awaiting the STIXFonts beta. Unfortunately, Java 6 does not support your OTF format. Will the final release include a TTF version of the fonts for Java developers or must I hope that Sun will add support in Java 7? I'm sorry I don't know much about font creation, so I don't know if creating a TTF version is a big deal for you or not. My limited understanding was that OTF was simply an updated TTF with PostScript support.

Response: From Adobe's point of view, OTF is probably thought of as simply an updated CFF with TrueType support. ;-) STIX Fonts will not be offered in TTF. To do so would extend a 12-year project much further. We hope that those applications with great TTF support will develop better true OTF support and those with great CFF support will do the same. There are areas within Sun that have been eagerly awaiting the STIX Fonts. Hopefully, they can influence the Java group to extend its OTF support.   (16 November 2007)

Comment: Well done so far. However, a collection of glyphs is not enough. I'm sorry to say. The first oddity of the STIX fonts is that the entire Plane 1 set of math alphabets isn't even contained within a single font!

Microsoft has already extended their support of the OpenType standard to support Unicode math alphabets (Plane1). They have developed the font Cambria Math that encapsulates how math alphabets should be represented in OpenType fonts. Sergey Malkin of the Microsoft development group first sent me info on this and I'm sure he's got more up-to-date documents than I can forward on.

Early this year I wrote preliminary support for OpenType math fonts for LaTeX and the XeTeX typesetting program (at the macro level; Jonathan Kew implemented the underlying support for XeTeX itself). And the free tool fontforge is able to create such math fonts (to the best of my knowledge, although it hasn't been well-tested yet). Sergey also has a tool for adding the requisite OpenType information to already-existing fonts, as well.

The gist of Microsoft's work is that all Unicode glyphs are contained within a single font along with their variants, and at optical sizes for script and superscript sizes as appropriate. OpenType features then control the selection of the necessary glyphs. Since the STIX fonts do not support this standard, they can't be satisfactorily used in Microsoft

Word 2007. Nor in XeTeX. I hope the stixfonts project will be improving the way their OpenType fonts are constructed for the final release. (19 November)

Response: Some general remarks. We chose OpenType format because it supports (entry) numbers in the higher planes. The STIX fonts are intended to be widely applicable. There are many apps and OSs/desktop environments that DO support OpenType, but not necessarily all of the special features that Microsoft has implemented for Word 2007. Please keep in mind that according to the OT specs, it is NOT mandatory to use those features.

We had done tests prior to the beta release defining those special features that Microsoft used in their Cambria font (e.g. GSUB for large sizes), but these tests result in problems for other important applications, e.g. Firefox and Internet Explorer on WinXP/Vista. Because of results like this, we decided for the beta release to keep things simple; the glyphs can be accessed in the font via their Unicode number. If you want a special glyph, you use the special font (e.g. the font with the variants). This was the only way to get results that allowed the maximum number of apps to get good results.

Next, the goal of STIX is to supply fonts: that is, glyphs for scientific characters and symbols in all uses. We are NOT in the business of only providing support for (pre) typesetting. The fonts contain math tables, automatically generated by Fontforge. SergeyMalkin's tool is meant for TT fonts, not for CFF (Type1) fonts, such as the STIX Fonts.

We have received several comments recommending that all Plane 1 glyphs should be found in the STIXGeneral font that one would normally expect to be reserved for regular weight, upright glyphs. We are considering making this change, but we are concerned about how other applications will react to this change. We welcome comments about this potential change from other application developers.