In Celebration of the STIX Fonts: Was the Product Worth the Wait? Yes, Definitely!

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After more than 10 years of collaborative effort and $1 million of investment, the impending beta release of the STIX fonts is certainly worth celebrating. In this session, speakers reflected on the history of the project, the pursuit of international standardization through Unicode, and the practical advantages of STIX fonts that make them such a worthwhile accomplishment.

The Scientific and Technical Information Exchange (STIX) fonts are free, comprehensive fonts that include more than 8,000 glyphs specific to scientific and technical publishing and have been created by the STI Pub Group (American Chemical Society, American Institute of Physics, American Mathematical Society, American Physical Society, Elsevier, and the Institute of Electrical and Electronics Engineers).

Richard Kobel opened the session on behalf of Tim Ingoldsby, who was unable to attend but provided, via Kobel, an overview of the history of the STIX fonts project. When plans for STIX fonts began, each publisher had its own set of fonts that it relied on for special characters. As Web publishing increased, so did the need for a unified font set incorporating all mathematics symbols. Once the team identified all glyphs being used in scientific publishing, the next key was to achieve standardization of the glyphs through Unicode.

Unicode is an encoding scheme developed for languages, and it provides an internationally standardized way of coding the glyphs used by various scripts, explained Barbara Beeton. STIX fonts would need to be recognized by Unicode to maximize their usefulness, especially on the Web. Once Unicode acknowledged mathematics as a language of its own, space was allotted in the Unicode standard for new mathematics glyphs. The STIX fonts team identified the symbols already included in Unicode and then began acquiring and compiling appropriate glyphs for any symbols not yet present. The resulting font set is as comprehensive as possible, including new glyphs submitted only months ago. "Mathematics notation is open-ended," Beeton said. She anticipates the need for more symbols and noted that the mechanics for adding such symbols to Unicode are now in place.

Wim de Vries outlined the three requirements of a successful font set intended for scientific publishing: unambiguous text documents, searchable text documents, and easy editing. With STIX fonts, publishers can achieve all three.

Traditionally, Windows, Macintosh, and other operating systems have been using different code pages, so a given code might call for different characters when viewed on different computers. With Unicode, every character has a single, standardized code regardless of the operating system used to view it, and this makes the content unambiguous and text searches more reliable. Also, viewing characters in a document is troublesome if many obscure fonts are required. "You need correct fonts, and of course that's what STIX is all about," said de Vries.

Indeed, de Vries urged the use of STIX fonts by all who do not want the hassle of searching through hundreds of fonts to find a specific character, the variety of text styles that results from pulling characters from unrelated font sets, or the frustration of paying for font sets that are not coherent or comprehensive, but who *do* want the characters in their text to be unambiguous and reliable.

The STIX fonts are truly a milestone in scientific publishing and a testament to the collaborative efforts of the publishing community. For additional information about project progress, font availability, and more, visit the STIX fonts Web site, *www.stixfonts.org*. A detailed chronicle of the Unicode effort is recorded at *www.ams.org/STIX*.