

**STIX** Fonts

***STIX Font Release  
Documentation***

*OpenType Font  
Version 1.0.0*

*24 May 2010*

**AIP** | American Institute  
of Physics

 **ACS**  
Chemistry for Life™

 **AMS**  
AMERICAN MATHEMATICAL SOCIETY

 **IEEE**

 **APS**  
physics

**ELSEVIER**

## Introduction

The Scientific and Technical Information eXchange (STIX) font is intended to solve the publishing needs of authors, publishers, printers, and others working in the scientific, medical, and technical fields. It is intended as a comprehensive Unicode based font of mathematical symbols and alphabets. The font is available royalty-free under the SIL Open Font License.

The intent is to provide a single font that can be used throughout the production process. The production process can be a traditional print one, be entirely electronic, or be a combination.

The project began through the joint efforts of American Mathematical Society (AMS), American Institute of Physics (AIP), American Physical Society (APS), American Chemical Society (ACS), Institute of Electrical and Electronic Engineers (IEEE), and Elsevier Science. These companies are collectively known as the STI Pub companies.

## What is provided in this release?

Five folders are provided in this distribution. They are

- *Blocks*
- *HTML*
- *Glyphs*
- *Fonts*
- *License*

The Blocks folder contains PDF and the HTML folder contains an HTML file giving the information below. The HTML folder contains all the glyphs in the STIX font. It is intended to test how well your browser supports Unicode Plane 1 and the PUA.

1. Unicode glyphs included (A few glyphs do not have Unicode characters and are in the Private Use Area [PUA]).
2. What weights the glyph is available in (RU=Roman, RI=Italic, BU=Bold, and BI=Bold Italic).
3. Which of the OpenType fonts the glyph resides in.
4. The Entry Key is a STIPub database key meant for internal use only and should be disregarded.
5. A sample of the glyph. Some glyphs are not viewable due to lack of software support. STI Pub expects support to improve over time.
6. The Unicode description of the glyph.

The glyphs folder provides a representation of the font in a more graphic form. These PDF files provide:

1. The name of the glyph.
2. Unicode description.
3. A sample of the glyph.
4. The Unicode code point.

The Fonts folder contains the OpenType version of the font. The version number is 1.0.0.

The font is distributed under the “SIL Open Font License, Version 1.1”. A copy of the license is in the separate License folder included with this distribution.

### **Font implementation decisions**

Only the four basic styles, upright roman, upright bold, italic, and bold italic are intended for setting text.

The font contains:

1. Kerning pairs for Latin characters suitable for use with sizes 8pt through 12pt.
2. Standard ligature support for those ligatures included in the font.

Sans serif, fraktur, script, et al are intended to be used as variables or for other technical notation and are to be accessed via Plane 1 Unicode.

As per the Unicode doctrine that for technical material, subscripts, superscripts, fractions and the like are to be indicated by markup, the limited selection of such glyphs in the STIX font, while reasonably comprehensive, by design does not include any such glyphs that would need to be placed in the private use area. Only such glyphs as actually have Unicode values are included.

Small capital letters are not part of the STIX glyphs and are not included in the initial release. STI Pub will consider adding them in a future release.

Additional OpenType features will be added in the second release which will allow using the font in Microsoft Office applications such as Word 2010. The third release will add LaTeX support.

### **Known Issues**

STIX Fonts release 1.0 should work correctly with Internet Explorer 8 in standards mode. Web site developers who wish to support IE8 should set the document mode by specifying the mode meta tag; see [http://msdn.microsoft.com/en-us/library/cc288472\(VS.85\).aspx#tools](http://msdn.microsoft.com/en-us/library/cc288472(VS.85).aspx#tools) for more information. There are known problems with using these fonts not in IE8 standards mode or with earlier versions of IE.

Currently there is limited support for glyphs/characters in Unicode Plane 1. This lack of support is not a font issue but rather an issue with the rendering software (e.g., browser, word processor, etc.).

The following changes to the STIX font were made after the public testing and commenting period:

- E03A was moved to the General font as A727 (heng).
- E202 is in the General Italic and Bold Italic fonts as 2145 (double struck capital D). *Note: Double struck symbols which have ‘regular’ Unicode values in the roman font also have italic, bold and bold italic variants.*

- E216, E217, E21B, E21C are in the General Italic and Bold Italic fonts as 2146-2149 (These are respectively double struck lowercase. d, e, i, and j).
- E3C1 was the 'heng' again, which moved to the General font as 0A727 (heng).
- E3C2 is in the NonUnicode roman font.
- The missing bold oblique double struck letters H, N, P Q, R, Z are assumed to have regular Unicode values (see E202 above) and are in the General Bold Italic font as 210D, 2115, 2119, 211A, 211D.
- 037F-E388 (small greek letters with straight bar through) originally had different bars in the italic and bold italic. The NonUnicode italic font was generated to fix this issue.

### **Feedback**

Please go to [www.stixfonts.org](http://www.stixfonts.org) and use the contact link on the base page to send any questions or comments. This is an open source project so contributions are welcomed.