UTC Document Register L2/13-221

Comments on the choice of STIX fonts for production of Unicode 7.0 character charts

Roozbeh Pournader, Google Inc.
November 5, 2013

Background

In L2/13-145=ISO/IEC JTC 1/SC 2/WG2 N4434, Michel Suignard suggested changes to the fonts used for representing several characters in the character charts for ISO/IEC 10646 and Unicode, mentioning that “Math STIX font set is a better representation of the mathematical characters encoded in the standard.”

While the author agrees in principle with the change, and believes that the change is a good , he believes that more characters than needed have been changed to used the new fonts, and certain characters should be reverted to use the previous fonts, as used in Unicode 6.3 charts.

The author has not reviewed the glyphs with white background in L2/13-145, and assumes that they have not changed.

Requested reversions

- U+2105 ℅ CARE OF: The original glyph is in italic style, matching the style of U+2100 ℀ ACCOUNT OF, U+2101 ℁ ADDRESSED TO THE SUBJECT, and U+2106 ℆ CADA UNA. But the new glyph is upright style. If a change to upright style is preferred, the same change should be done for the other three similar characters.
- U+2113 ℓ SCRIPT SMALL L: The new glyph chosen for the character is identical to the new glyph chosen for U+1D4C1 𝓁 MATHEMATICAL SCRIPT SMALL L. The charts clearly specify that “despite its character name, this symbol [U+2113] is derived from a special italicized version of the small letter l”.
- U+2116 № NUMERO SIGN: The new glyph is in upright italic style, while the old glyph is normal upright. Such a change in the glyph would imply a “fancy” semantic for the character, which should be avoided. As this is not a mathematicals symbol, choosing a mathematical font for it does not make sense.
- U+2117 ℗ SOUND RECORDING COPYRIGHT: As this character is a legal symbol and not a mathematicals symbol, choosing a mathematical font for it does not make sense.
- U+211E ℞ PRESCRIPTION TAKE: As this character is a medical symbol and not a mathematicals symbol, choosing a mathematical font for it does not make sense.
- U+2122 ™ TRADE MARK SIGN: As this character is a legal symbol and not a

mathematicals symbol, choosing a mathematical font for it does not make sense.

- U+2125 ℥ OUNCE SIGN: As this character is an apothecary symbol and not a mathematicals symbol, choosing a mathematical font for it does not make sense.
- U+212B Å ANGSTROM SIGN: This character is canonically equivalent to U+00C5 Å LATIN CAPITAL LETTER A WITH RING ABOVE. It's glyph should preferably be synchronized with U+00C5, instead of changing to a math version.
- U+2132 Ⅎ TURNED CAPITAL F: This is a unified character, which is both a mathematical character and a Latin letter (see Everson 2005 and Wikipedia 2013). The old glyph is serif, while the new glyph is sans serif. The sans serif glyph would give the wrong information to users about the character's identity.
- U+230C ⌌ BOTTOM RIGHT CROP, U+230D ⌍ BOTTOM LEFT CROP, U+230E ⌎ TOP RIGHT CROP, U+230F ⌏ TOP LEFT CROP, U+231C ⌜ TOP LEFT CORNER, U+231D ⌝ TOP RIGHT CORNER, U+231E ⌞ BOTTOM LEFT CORNER, and U+231F ⌟ BOTTOM RIGHT CORNER: The new glyphs for the characters are unnecessarily thicker and are horizontally centered, while the old glyphs were clearly at corners. Since the chart glyphs will be used as references for fonts, and there is no specific reason for the change, keeping the old glyphs are more in line with character identity stability.
- U+2AFE ⫾ WHITE VERTICAL BAR and U+2AFF ⫿ N-ARY WHITE VERTICAL BAR: The old glyphs for these are differentiated by their heights, while the new glyphs are differentiated by stroke weight. The author could not find more information about the shape (the original proposals by Beeton, Freytag, and Ion 2001a and 2001b agree in the shape of glyphs with the old glyphs), and wishes to suggest that such changes would be avoided until clarifying information is available.
- U+2B33 ⬳ LONG LEFTWARDS SQUIGGLE ARROW: The glyph goes outside its box.
- U+2B37 ⬷ LEFTWARDS TWO-HEADED TRIPLE DASH ARROW and U+2B38 ⬸ LEFTWARDS ARROW WITH DOTTED STEM: The old glyphs have U+2B38 slightly longer, while the new glyphs have U+2B37 as noticeably longer.

Bibliography

1. Barbara Beeton, Asmus Freytag, and Patrick Ion. 2001a. "Additional Mathematical Symbols." ISO/IEC JTC1/SC2/WG2 N2318 and UTC Document Register L2/01-088. http://www.unicode.org/L2/L2001/01088-n2318-math.pdf.
2. Barbara Beeton, Asmus Freytag, and Patrick D. F. Ion. 2001b. "Additional Mathematical Symbols." ISO/IEC JTC1/SC2/WG2 N2336 and UTC Document Register L2/01-142. http://www.unicode.org/L2/L2001/01142-N2336-Mathadd9.pdf.
3. Michael Everson. 2005. "Proposal to add Claudian Latin letters to the UCS". ISO/IEC JTC1/SC2/WG2 N2960R2 and UTC Document Register L2/05-193R2. http://www.unicode.org/L2/L2005/05193r2-n2960r2-claudian.pdf.

4. Michel Suignard (Project Editor). 2013. “Math characters and variation sequences.” ISO/IEC JTC1/SC2/WG2 N4423 and UTC Document Register L2/13-145. http://www.unicode.org/L2/L2013/13145-n4434.pdf.
5. Wikipedia contributors. 2013. “Claudian letters.” Wikipedia, The Free Encyclopedia. Accessed November 5, 2013. http://en.wikipedia.org/w/index.php?title=Claudian_letters&oldid=572374501.