

ISO
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ISO-IEC JTC1/SC2/WG2
Multiple-Octet Coded Character Set

ISO-IEC/JTC1/SC2/WG2 N 2174
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Title Comment on IEC 61286-2, Electrotechnical Symbols
Source Hugh McG Ross U.K.
Status Individual expert's contribution
Action For consideration by WG2 and IEC 3B

IEC Subcommittee 3B has prepared a draft Technical Report 61286-2 relating to the correspondence or mapping between the electrotechnical symbols in IEC 61286-1 and ISO 10646. This is a development of my paper WG2 N 2032. It utilizes a number of distinctive electrotechnical symbols that were added to UCS in Amendment 18.

The following Comments are offered on 612806-2 and accompanying e-mails between Mr Jke Svensson (Secretary of 3B) and Miss Kimura (for WG2).

1) Technical Comment. Mr Svensson has a problem with the Greek symbol ϵ . The proposal of WG2 N 2032 to use UCS 220A SMALL ELEMENT OF would seem to be satisfactory. The only difference between the glyphs is that 220A is upright, whereas the IEC form is slightly inclined. Furthermore WG2 has resisted the addition to UCS of a Greek letter of this form, even though it is widely used, on the grounds that it is a font variant of ϵ . What is being done in WG2 N 2032 is to resolve the problem that in IEC usage these two forms of Greek epsilon have quite different meanings. See also Comment 7 below.

The Cyrillic letter 0454 seems much less satisfactory, as it is usually drawn with strong serifs.

2) Regarding IEC 2/1 POSTPONED-OUTPUT SYMBOL the view has been expressed in WG2 that UCS already has five symbols of the general shape Γ . It has been hoped that 2510 would suffice for IEC usage. See Comment 7 below.

3) Regarding IEC 2/10 \leq or \lesssim etc the view has been held for several years in WG2 that these are font variants. See Comment 7 below.

4) Note for Unicode people. At IEC 4/4 Mr Svensson proposes UCS 0394 GREEK CAPITAL LETTER DELTA. This is logical, but is different from the previous WG2 position.

5) Regarding IEC 5/13 - 5/15 \approx etc it is possible that Comment 7 below will resolve the problem.

6) Regarding the name of UCS 2393, which was added in Amendment 18 to meet IEC needs. IEC could now dispense with FORM TWO in the name (because they no longer use form one). It is for WG2 to decide if this deletion -- which seems very logical -- could be accommodated at this time.

continued

7) The IEC document makes it clear that their interest and responsibility is to provide primarily for the needs of computer-aided design tools which typically are developed for that purpose. Therefore it might be appropriate to think, and to write into the document, that the font intended to be used with 61286-2 may be optimized for such applications, whereas the correspondence of the coded characters is intended for interchange with other such systems and with general-purpose UCS systems. This will accommodate all the small differences between pairs of glyphs that are the only remaining difficulties in this mapping proposal.

8) Technical Comment. At IEC 4/9 ANALOGUE SYMBOL should map with UCS 2229 INTERSECTION. The symbol 22C2 is a special form distinguished by large size and bold font.

9) Technical Comment. In my earlier paper IEC had used Greek ϕ at 7/6 = 03C6 and φ at 7/11 = 03D5. These are switched in 61286-2. Mr Svensson should be sure what is required.

10) Editorial Comments:

10.1 Page 6, last line, characters in the order of their appearance

10.2 Page 7, item 3/14, the Notes 3) 5) apply to IEC 61286-2 not UCS.

10.3 Page 8, item 5/5, write UPSILON without a hyphen.

10.4 Page 8, item 5/14, MEDIUM-FREQUENCY

10.5 Page 8, item 5/15, HIGH-FREQUENCY

10.6 Page 9, Note 6, are slightly different.

10.7 Page 9, Note 8, delete.

10.8 Pages 10 - 12, add headings to tables (corresponding to pages 7 - 9).

11) Suggestion. My paper WG2 N 2032 showed the IEC glyphs (taken from Registered Set 181) with the purpose of making everything clearer to the reader. Mr Svensson might like to consider, for the same purpose, adding the glyphs from IEC 60617 (or IEC 60027 or ISO 31) together with the glyphs being used in the new version of ISO 10646, (these may be obtainable from Mr Asmus Freytag).

Copy sent direct to Mr Svensson.

H. McG. R.