## Disposition of comments on SC2 N 3714 (PDAM text for Amendment 1 to ISO/IEC 10646:2003)

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Comments were received from Canada, China, Ethiopia (O), France, Ireland, Morocco, Tunisia and USA. The following document is the disposition of those comments. The disposition is organized per country.

Note – The full content of the ballot comments (minus some character glyphs) have been included in this document to facilitate the reading. The dispositions are inserted in between these comments and are marked in **Underlined Bold Serif text**, with explanatory text in italicized serif.

Note – This ballot has generated many requests for character addition to existing blocks or even requests for completely new scripts such as Tifinagh. All requests for addition that have been approved will result in character additions in the Final Proposed Draft Amendment 1 (FPDAM1). However, it was agreed to move the Phags-pa repertoire from Amendment 1 to Amendment 2 to provide sufficient time for interest parties to contribute additional feedback to the proposal.

Based on the disposition of comments, China, Ireland and Morocco changed their vote to YES. There are no remaining negative votes.
Canada: Yes with comments:

Technical Comments:
Comment a:
"Canada accepts the text of the PDAM1 as written. Also Canada requests that the following proposed additions to be approved by WG2 and included in this amendment before it progresses to the next stage: JTC1/SC2/WG2 N2739, a joint Morocco-Canada-France proposal to add Tifinagh script

Accepted in principle
Although this is a new script proposal, the fact that it was endorsed by many member bodies (Canada, France, Morocco and Tunisia) and that there is no controversy about the content lead to the decision to include this in Amendment 1. The new Block name is TIFINAGH with the range 2D30-2D6F. The content is specified by WG2 N2739 with character names as amended by WG2 N2828.

Comment b:
JTC1/SC2/WG2/N2738 - proposal to add Roman Numeral Canopy character
Withdrawn

China: Negative

General comments

G1. China opposes to encode those scripts less alive than Tibetan BrdaRten into BMP.

Noted
As per resolution M44.20 at the WG2 meeting#44 in Mountain View, CA USA, WG2 gave the following rationale for not encoding Tibetan BrdaRten:
   a. All of the proposed characters can already be represented as sequences of existing encoded UCS characters, as shown explicitly in document N2624.
   b. The addition of the proposed characters would thereby lead to normalization issues.
   c. The addition of the proposed characters would also amount to a change in the overall encoding model for the Tibetan script, thereby destabilizing and introducing more complexity for existing implementations conformant to the standard.

G2. China would like help ISO/IEC 10646 project editor to prepare next version of Tai Lue (current 1980-19DF) and Phags-pa (current A840-A87F) for ballot.

Noted

Technical comments:

Tai Lue:
T1. The Tai Lue scripts are being widely used among Dai people in China. Therefore the encoded Tai Lue scripts should be accepted by Chinese Dai experts and the users.

Noted
As a result of further discussion covered by WG2 N2825, it was agreed to rename the block, collection and character names from ‘Tai Lue’ to ‘New Tai Lue’. In addition, all references to character names and code positions in the disposition text below refer to the original version as documented in the proposed amendment (SC2 N3714) unless explicitly mentioned.

T2. The New Tai Lue scripts had been standardized when it was improved in 1950’s. And the writing rule and spelling rule was set then. All kinds of Tai Lue fonts being used should follow the rule.

Noted
Spelling rule does not apply to character encoding.
T3. We disagree on the ordering of Tai Lue characters in N3696. The Tai Lue characters should be listed in the order as the following: consonants, monophthongs, diphthongs, syllable-final consonants, tone marks, digits and the other marks.

**Accepted**

Although the order in which characters are encoded is not strictly related to their sorting order (it wouldn’t even apply to the basic ASCII repertoire), there is no harm done in arranging the encoding order in a way more pleasing to China.

T3.A. Ordering of articulation. The consonants are ordered according to several properties in Dai tradition.

- Point of articulation: glottal, velar, apical, labial.
- Manner of articulation: plosive (unaspirated, aspirated), affricate (unaspirated, aspirated), nasal, fricative, semi-vowel.
- Tone class: high, low

The traditional way of ordering the consonants is divided the 42 consonants into 8 groups according to the point of articulation at first. The consonants among each group are ordered according to the manner of articulation. At last, the consonants are ordered according to the tone class. The group of consonants with high tone is listed before the group of consonants with low tone.

**Accepted in principle**

The ballot comment has been clarified as shown in charts in WG2 N2748 and WG2 N2761 from Ireland and consolidated in WG2 N2825. The latter document describes the new reordering of the various characters covered by comment T3.

T3. B. Ordering of vowels. The vowels are ordered in the turn of single vowels, diphthongs and syllable-final consonants. The vowels can be put before or after a consonant in a syllable, but the syllable-final consonants should be after any consonant and vowel.

**Accepted in principle**

See T3.A disposition above.

T3.C. The ordering of other characters. The tone mark is ordered after the vowel. Then come the digits listed as 0,1,2,3,4,5,6,7,8,9. The last three are the particle mark (i.e., the 19DE in N3696), superjoin mark and subjoin mark.

**Accepted in principle**

See T3.A disposition above.

T4. We prefer to encode the Tai Lue characters in N3696, of which the numbers are: 1981, 199C, 19A3, 19A5, 19A6, 19A7, 19A8, 19A9, 19DF in separate way. That’s more appropriate.

**Not accepted**

Concerning 1981 TAI LETTER LOW QA, 19A3 TAI LETTER LOW DA and 19A5 TAI LETTER LOW BA, the “hat” on these three characters is used with exactly these three characters; it is not a general combining mark that can be used in productive combinations with many characters.

Concerning 199C TAI LETTER HIGH VA, 19A6 TAI LETTER HIGH KVA, 19A7 TAI LETTER LOW KVA, 19A8 TAI LETTER HIGH XVA, 19A9 TAI LETTER LOW XVA, and 19DF TAI LETTER SIGN LEW are preserved as encoded in the amendment with reordering as accepted in comment T3. The combining ‘TAI LU VA’ is not added.

T5. The encoding of Tai Lue vowel in N3696 is not consistent. Some of them is encoded separately, e.g., the vowel [↩] is encoded combining 19C1 and 19B1, while the diphthong [↩i] is encoded combining 19C1 and 19CC.

**Not Accepted**

With further clarification from WG2 N2748 and discussion among experts it was agreed to maintain the distinction encoding between 199D TAI LUE LETTER LOW VA and 19D0 TAI LUE DIGIT ZERO although they have similar glyph. It was also decided to preserve the encoding of 19C2 TAI LUE VOWEL SIGN E, not representing it as a character sequence made of two 19C1 TAI LUE VOWEL SIGN EE.

T6. The Tai Lue character 19C2 in the list of Tai Lue name is wrong.

**Accepted in principle**

As a result the following 6 characters are renamed (shown with old and new positions)

19C1 TAI LUE VOWEL SIGN EE renamed and moved to 19B5 NEW TAI LUE VOWEL SIGN EE
19C2 TAI LUE VOWEL SIGN E renamed and moved to 19B6 NEW TAI LUE VOWEL SIGN AE
19C3 TAI LUE VOWEL SIGN OO renamed and moved to 19B7 NEW TAI LUE VOWEL SIGN O
19C4 TAI LUE VOWEL SIGN O renamed and moved to 19B8 NEW TAI LUE VOWEL SIGN OA
19C9 TAI LUE VOWEL SIGN OOY renamed and moved to 19BD NEW TAI LUE VOWEL SIGN OY
19CA TAI LUE VOWEL SIGN OY renamed and moved to 19BE NEW TAI LUE VOWEL SIGN OAY

Phags-pa
T7-T11
Accepted in principle
The document WG2 N2745 also introduced by China clarified the comment ballots. At meeting WG2 M 45 (Toronto June 2004), an ad hoc could not resolve most of the issues presented by the ballot comments. It was agreed to move the Phags-pa proposal from Amendment 1 to a new Amendment 2 to give more time for further discussion. The ‘accepted in principle’ resolution captures that disposition.

T7. Alphabet not integrated, 2 vowels ö and ü used for recording Mongolian missing.

**Postponed**
Issue unresolved and to be deferred for future ballot resolution

T8. Some presentation forms are regarded as canonical forms by error, e.g., A868 and A869 are presentation forms A85C; they should not be placed at current locations.

**Postponed**
Issue unresolved and to be deferred for future ballot resolution


**Postponed**
Issue unresolved and to be deferred for future ballot resolution

T10. Typeface in this PDAM had never been used in history of Phags-pa script.

**Postponed**
There is agreement that another typeface could be appropriate, though no particular typeface has been identified as the consensus choice as yet. The two best candidates are the font used in the amendment and the other is a monumental Kubla Khan font.

T11. Some characters’ shapes are not the best choice for canonical characters, shapes selected should be those appear frequently. For instance: A851 and A86C.

Accepted in principle
The glyph shapes for A851 and A86C proposed in N2719 Point 5 are better and addresses this problem. The shape for these 2 characters will be updated accordingly in the new amendment.

T12. Character names should conform to that of Mongolian (1800-18AF). For instance: A86F ANUSVARA, A870 BIRGA, etc…

Accepted in part
The ad-hoc discussed a number of these changes and came to agreement about many of them; some other proposed name changes remain to be resolved in the future.

1. It was agreed to accept the script name PHAGS-PA as opposed to other possible spellings for the script and character names.
2. It was agreed that A86F should be called PHAGS-PA LETTER CANDRABINDU but that annotations would be added to clarify the ANUSVARA in Mongolian.
3. It was agreed not to add language names to character names, as they are not required to distinguish any of the character names in the repertoire. Usage for particular languages will be explained in annotations to the characters instead.
4. It was agreed that A862 PHAGS-PA LETTER QA and A863 PHAGS-PA LETTER XA are the appropriate names for those two characters because they are transliterated by [q] and [x] respectively. The ad-hoc was unable to determine a rationale for a better name for A865 PHAGS-PA LETTER GGA and invites an explanation of why the character should be named GGA or some alternative.

The remaining name issues:

5. The spelling of E and EE for A86E and A86C
6. The name -A vs MINISCULE A for A85A
7. The name SUBJOINED LETTER WA vs. HALF U and SUBJOINED LETTER YA vs. HALF YA for A866 and A867
8. The name SINGLE and DOUBLE HEAD MARK vs. BIRGA for A870 and A871.

T13. At least one “Free Variation Form Selector” is needed. A “Syllable Connector” different to “general space” is also needed.

Postponed
Issue unresolved and to be deferred for future ballot resolution

T14. Phags-pa script should not be regarded as variant of Tibetan script.

Noted
It was stipulated that the Phags-pa script is not regarded as a variant of the Tibetan script. The two scripts are related but distinct and will be documented as such in the standard.

The disposition above for T7-14 comments represents the ad-hoc’s suggestions regarding specific resolution of ballot comments in N2773 including the identification of technical issues which had to be deferred for future discussion. In addition to items specifically identified in China’s ballot comments summarized above, the ad-hoc identified several other technical issues regarding the Phags-pa encoding which will need further discussion and resolution as this technical dialogue regarding Phags-pa continues.

1. The status of PHAGS-PA LETTER A as consonant vs. vowel and its implication on the ordering of letters.
2. The issue of whether Phags-pa characters should represent the visual forms of the letters directly or whether a table of conditioned variant forms are required for the encoding.
3. Whether the variant forms for YA, SHA, HA, and FA occurring in Menggu Ziyun should be separately encoded or be represented by variation sequences.
4. Whether Mongolian and Chinese punctuation can be shared with Phags-pa or needs to be separately encoded for the Phags-pa script.
5. Whether specific punctuation marks for SHADs and HEAD MARKs should be encoded for Phags-pa.

Ethiopia: Yes with comments:

Technical comments:

T.1 Ethiopic extension
Concerning the FPDAM ballot for SC2N3714; the Quality and Standards Authority of Ethiopia is in agreement with the general and technical aspects of the amendment proposal as it addresses the orthographies of other member bodies. Under Clause 33, however, we are concerned that consideration has not been given for inclusion of Extended Ethiopic elements found in the Ethiopian national character set standard of 2002. Attached to this email is a request for inclusion of Extended Ethiopic elements into Amendment 1 of ISO/IEC 10646:2003 derived from our national character set standard ES 781:2002.

Accepted in principle
This new repertoire will be added in Amendment 1 with code positions documented by WG2 N2747 and amended by WG2 N2814R. This results in 2 new blocks: Ethiopic Extended 2D80-2DDF and Ethiopic Supplement 1380-139F.

France: Positive with comments

Technical Comments:
The French national body vote yes to the PDAM, amendment 1 of ISO/CEI 10646:2003. Additionnally AFNOR recommends the inclusion in this amendment discussion in Markham of the joint Morocco-Canada-France proposal to add Tifinagh to ISO/IEC 10646 (attached document N 2739). Such decision would help to fasten appropriate satisfaction of important user's needs as shown in the proposed document.
Ireland: Negative

Technical comments

T.1. Page 2, Clause Terms and definitions. The definition given here is technically imprecise. The “i” in the ligature “fi” may graphically combine with the “f” but that does not mean that “f” is the base character for “i”. Compare Devanagari and Arabic scripts. This definition should be corrected by WG2 or the definition should be deleted from the PDAM.

Accepted in principle

Will be better aligned with the Unicode Standard V4.0 clause D13 (page 70) from which the new text is derived.

Add a definition for ‘Format Character’ as follows:

“Format Character: character whose primary function is to affect the layout or processing of characters around them. It generally does not have a visible representation of its own.”

Change definition of ‘Graphic Character’ as follows:

“Graphic Character: A character, other than a control function or a format character, that has a visual representation normally handwritten, printed or displayed.”

Add a Note after the definition of Base character as follows:

“Note – Most graphic characters are base characters. This sense of graphic combination does not preclude the presentation of base characters from adopting different contextual forms or participating in ligatures.”

T.2. Page 1349, Annex A.1. Ireland requests that the Coptic block be extended to 2CFF. See T18 below.

Accepted

Coptic block ending on decision concerning T18.

T.3. Page 1352, Annex A.2.1. Ireland requests that the Coptic block be extended to 2CFF. See T18 below.

Accepted

As above.

T.4. 0238 LATIN SMALL LETTER TH WITH STRIKETHROUGH: Ireland would support the removal of this character from the PDAM pending further study of it and similar phonetic ligatures. We do not, however, insist on this point. At the very least it ought to be moved to 1D7A with other phonetic characters.

Accepted (move)

Moving it to 1D7A as also requested by the USA (ballot comment T.1).

T.5. 03FD REVERSED GREEK CAPITAL LUNATE SIGMA SYMBOL. This character must be renamed GREEK CAPITAL REVERSED LUNATE SIGMA SYMBOL to be in accord with the usual naming conventions for Greek.

Accepted

03FD GREEK CAPITAL REVERSED LUNATE SIGMA SYMBOL

T.6. 03FE DOTTED GREEK CAPITAL LUNATE SIGMA SYMBOL. This character must be renamed GREEK CAPITAL DOTTED LUNATE SIGMA SYMBOL to be in accord with the usual naming conventions for Greek.

Accepted

03FE GREEK CAPITAL DOTTED LUNATE SIGMA SYMBOL

T.7. 03FF REVERSED DOTTED GREEK CAPITAL LUNATE SIGMA SYMBOL. This character must be renamed GREEK CAPITAL REVERSED DOTTED LUNATE SIGMA SYMBOL to be in accord with the usual naming conventions for Greek.

Accepted

03FF GREEK CAPITAL REVERSED DOTTED LUNATE SIGMA SYMBOL

Page 6 of 18
T.8. 0767 ARABIC LETTER NOON WITH TWO DOTS BELOW AND DOT ABOVE. This character must be renamed ARABIC LETTER NOON WITH TWO DOTS BELOW to be in accord with the usual naming conventions for Arabic. The “dot above” here is an intrinsic feature of the NOON itself and should not be part of the character name.

**Accepted**

0767 ARABIC LETTER NOON WITH TWO DOTS BELOW

T.9. 0767 ARABIC LETTER NOON WITH DOT ABOVE AND SMALL TAH. This character must be renamed ARABIC LETTER NOON WITH SMALL TAH to be in accord with the usual naming conventions for Arabic. The “dot above” here is an intrinsic feature of the NOON itself and should not be part of the character name.

**Accepted in principle**

Change meant for 0768, not 0767 resulting in:

0768 ARABIC LETTER NOON WITH SMALL TAH

T.10. 097D DEVANAGARI GLOTTAL STOP. This character must be renamed DEVANAGARI LETTER GLOTTAL STOP to be in accord with the usual naming conventions for Devanagari. The character is used as a letter.

**Accepted**

097D DEVANAGARI LETTER GLOTTAL STOP

T.11. TABLE 57 - Row 19: Tai Lue. With reference to ISO/IEC JTC1/SC2/WG2 N2748 “Proposal on encoding New Tai Lue”, Ireland rejects the changes proposed in that document. That new Chinese proposal requests the deletion of 11 characters, nine of which are intended to be composed using two combining diacritical marks proposed for addition. This is a reversal from the consensus on encoding arrived at between the Chinese, Irish, and U.S. representatives who met to discuss Tai Lue at the Dublin meeting of WG2 in 2002. Further, if such a change were made, then it would be reasonable to suggest that the letters 1986, 1992, 1998, and 199E should also be decomposed to TAI LUE LETTER HIGH HA plus a set of subscripts, or that the Virama-model which was rejected for this script be reintroduced. N2748 proposes to encode TAI LUE LETTER VOWEL SIGN E as a sequence of TAI LUE LETTER VOWEL SIGN EE and TAI LUE LETTER VOWEL SIGN EE, which introduces inconsistency in the encoding model. Ireland also rejects the reorganization of the order of the characters in the code chart; we believe that the ordering of the consonants there reflects the ordering as actually presented in dictionaries (we will verify this before the WG2 meeting in Markham). Finally, N2748 proposes the unification of TAI LUE DIGIT ZERO and TAI LUE LETTER LOW VA, which is unacceptable. Ireland supports the Tai Lue encoding as given in the PDAM.

**Accepted in principle**

Refer to Chinese comments T1-T6. In addition to these comments, a further name change to harmonize the usage of the letter ‘TSA’ is made as following:

1988 TAI LUE LETTER HIGH TSA renamed NEW TAI LUE LETTER HIGH TSA
1989 TAI LUE LETTER CA renamed and moved to 198B NEW TAI LUE LETTER TSA

T.12. 1D79 LATIN LETTER INSULAR G. This character must be renamed LATIN SMALL LETTER INSULAR G to be in accord with the usual naming conventions for Latin.

**Accepted**

1D79 LATIN SMALL LETTER INSULAR G


**Accepted**

20B4 HRYVNIA SIGN
20B5 CEDI SIGN

T.14. 2692 HAMMER AND CHISEL. The name should be changed to the more accurate HAMMER AND PICK.

**Accepted**

Also requested by US comment T10.
2692 HAMMER AND PICK
T.15. 2695 ROD OF AESCULAPIUS. The name of this son of Apollo is Aesculapius, though other spellings are found; interestingly, he is referenced in the Hippocratic Oath. The character name should be changed to STAFF OF AESCULAPIUS (STAFF, ROD, and WAND are all found, but a long walking-stick or staff is most common in the icons we have seen). The reference glyph for this character should not be set at an angle, but should be vertical like the related CADUCEUS; the angled glyph seems to be a peculiar use of one dictionary. We are prepared to provide a better glyph to the editor.

Accepted

2695 STAFF OF AESCULAPIUS.

T.16. 269A STAFF OF HERMES. Ireland requests the removal of this character until further evidence can be found. We find that the Staff of Hermes = the Caduceus, and cannot find authoritative evidence for the winged staff in any context without the two snakes.

Withdrawn

T.17. TABLE 97 - Row 2C: Glagolitic. Ralph Cleminson, one of the authors of the Glagolitic proposal, has pointed out that Glagolitic requires a single combining mark, which was omitted from the original proposal: the COMBINING GLAGOLITIC SUSPENSION MARK, which looks a bit like an inverted COMBINING CYRILLIC TITLO (which is also used in Glagolitic). We request that this character be added to the PDAM, and suggest either one of the empty positions in the Glagolitic table or perhaps better 0487 in the Cyrillic block. An illustration of a manuscript containing numerous examples of the SUSPENSION MARK is appended to the end of this document. In addition to this, five character of the Glagolitic names need to be replaced with the following:

2C0C GLAGOLITIC CAPITAL LETTER DJERVI
2C23 GLAGOLITIC CAPITAL LETTER YU
2C2D GLAGOLITIC CAPITAL LETTER TROKUSTASTI A
2C3C GLAGOLITIC SMALL LETTER DJERVI
2C2D GLAGOLITIC SMALL LETTER TROKUSTASTI A. [sic]

Accepted in principle

Name changes similar to US comment T8. From discussion from experts it is also preferable to replace ‘TROKUSTASTI’ by ‘TROKUTASTI’. So the name changes become:

2C0C GLAGOLITIC CAPITAL LETTER DJERVI
2C23 GLAGOLITIC CAPITAL LETTER YU
2C2D GLAGOLITIC CAPITAL LETTER TROKUTASTI A
2C3C GLAGOLITIC SMALL LETTER DJERVI
2C2D GLAGOLITIC SMALL LETTER TROKUTASTI A

The COMBINING GLAGOLITIC SUSPENSION MARK is added as a generic combining diacritical mark as following:

1DC3 COMBINING SUSPENSION MARK

T.18. TABLE 98 - Row 2C: Coptic. With reference to ISO/IEC JTC1/SC2/WG2 N2744, “Revision of the Coptic block under ballot for the BMP of the UCS”, Ireland requests the complete replacement of the Coptic chart and names list given in the PDAM, and the extension of the Coptic block to 2CFF. The table is also given below.

Accepted in principle

The new repertoire is in the same block range 2C80-2CFF and is documented by WG2 N 2824 (same content as 2744 but the letters are reordered between modern letters 2C80-2CB1 and Old Coptic and dialect letters: 2CB2-2CDB). There are no name changes from WG2 N2744. Differences from the original amendment content:

Modern Coptic letters (originally 2C80-2C98 and 2CA0-2CB8) moved to 2C80-2CB1,
COPTIC CAPITAL LETTER AKHMIMIC KHEI moved to 2CC8
COPTIC CAPITAL LETTER RO WITH STROKE renamed COPTIC CAPITAL LETTER SAMPI and moved to 2CC0
COPTIC SMALL LETTER AKHMIMIC KHEI moved to 2CC9
COPTIC SMALL LETTER RO WITH STROKE renamed COPTIC SMALL LETTER SAMPI and moved to 2CC1
COPTIC SYMBOL MI RO moved to 2CE5
COPTIC SYMBOL KHI RO moved to 2CE9
COPTIC SYMBOL KHRISTOS renamed COPTIC SYMBOL STAURS and moved to 2CE7
COPTIC FULL STOP moved to 2CFE
COPTIC FRACTION ONE HALF moved to 2CFD
All other characters (2CB2-2CBF, 2CC2-2CC7, 2CCA-2CE4, 2CE6, 2CE8, 2CEA, 2CF9-2FC, 2CFF) are new and described in WG2 N2824.
T.19. **TABLE 127 - Row A8: Phags-pa.** With reference to ISO/IEC JTC1/SC2/WG2 N2745, “Summary of the 1st Joint Meeting on the HPhags-Pa Script Encoding”, Ireland rejects the changes proposed in that document. The document deletes A868, A869, A870, A871, A872, and A873 without discussion, adds four punctuation characters which appear to be duplicates of Mongolian characters, adds two vowels which can each be rendered as strings of other characters in the proposal, adds an unnecessary glyph joiner, and duplicates four characters stating that distinct uses are made of some of these to represent some sounds on the Chinese language – which may be true, but the sounds are not described, nor is any evidence shown of the use of the characters distinctively in text. Finally, N2745 renames the Phags-Pa characters by adding unnecessary language identifiers throughout. Ireland supports the Phags-Pa encoding as given in the PDAM.

**Accepted in principle**

See disposition of ballot comments from China (T7 to T14)

T.20. **Additional Phonetic Symbols.** With reference to ISO/IEC JTC1/SC2/WG2 N2705 “Proposal to encode five Indo-Europeanist phonetic characters in the UCS”, Ireland requests the addition of the characters LATIN SUBSCRIPT SMALL LETTER A, LATIN SUBSCRIPT SMALL LETTER E, LATIN SUBSCRIPT SMALL LETTER O, and LATIN SUBSCRIPT SMALL LETTER X at suitable positions, as well as SUBSCRIPT SOLIDUS at position 208F.

**Partially accepted**

The following characters are added as followed:

2090 LATIN SUBSCRIPT SMALL LETTER A
2091 LATIN SUBSCRIPT SMALL LETTER E
2092 LATIN SUBSCRIPT SMALL LETTER O
2093 LATIN SUBSCRIPT SMALL LETTER X

The proposed character: SUBSCRIPT SOLIDUS was not accepted.

T.21. **COMBINING RIGHT DOT ABOVE.** With reference to ISO/IEC JTC1/SC2/WG2 N2628 “Proposal to add COMBINING RIGHT DOT ABOVE as required by Taiwanese Holo language Romanization to ISO/IEC 10646”, as well as with reference to the 1997 document N1593 which requests the same character, Ireland requests the addition of COMBINING RIGHT DOT ABOVE at position 0358.

**Accepted**

 Added with a name change as:
0358 COMBINING DOT ABOVE RIGHT.

T.22. **Hebrew Characters.** With reference to ISO/IEC JTC1/SC2/WG2 N2692 “Proposal to add ATNAH HAFUKH to the BMP of the UCS”, to ISO/IEC JTC1/SC2/WG2 N2714 “Proposal to add two Masoretic punctuation marks to the BMP of the UCS”, and to ISO/IEC JTC1/SC2/WG2 N2755 “Proposal to add QAMATS QATAN to the BMP of the UCS”, Ireland requests the addition of the following: HEBREW ACCENT ATNAH HAFUKH at position 05A2 (with the glyph change of 05AA as shown in N2693), HEBREW MARK LOWER DOT at position 05C5, and HEBREW PUNCTUATION NUN HAFUKHA at position 05C6, and HEBREW POINT QAMATS QATAN at position 05BA.

**Accepted in principle**

Addition:

05A2 HEBREW ACCENT ATNAH HAFUKH
05BA HEBREW POINT QAMATS QATAN
05C5 HEBREW MARK LOWER DOT
05C6 HEBREW PUNCTUATION NUN HAFUKHA

(The characters 05A2, 05BA and 05C5 are combining.)

The existing 05B8 HEBREW POINT QAMATS gets a ‘*’ annotation and an entry is added in Annex P as following: “Used generically or as qamats gadol in orthography which distinguishes it from qamats qatan.”

The glyph for the character 05AA will be mentioned as being changed in the amendment.

T.23. **Bhutanese Symbols.** With reference to ISO/IEC JTC1/SC2/WG2 N2694 “Proposal to encode two Bhutanese marks for Dzongkha in the UCS”, Ireland requests the addition of the two punctuation signs TIBETAN MARK BSKA- SHOG GI MGO RGYAN (ka shog gi go gyen) and TIBETAN MARK MNYAM YIG GI MGO RGYAN (nyam yig gi go gyen) at positions 0FD0 and 0FD1.

**Accepted**

Addition:

0FD0 TIBETAN MARK BSKA- SHOG GI MGO RGYAN (ka shog gi go gyen)
Editorial comments

E.1 Page 2, Clause Terms and definitions. Change “number” to “numbers”.
Accepted

E.2 Page 15, Sub-clause 20.4 Variation selectors. Change “non base” to “non-base”.
Accepted

E.3 Table 9 - Row 03: Combining Diacritical Marks. The glyph for 031A is missing.
Accepted
Also mentioned in US comment E.1. Note that the character was not part of any addition. It is simply a chart production error that will be fixed in the next iteration of the amendment proposal.

E.4 Table 10 - Row 03: Greek and Coptic. Replace the Coptic glyphs for 03E2-03EF with the glyphs as shown in ISO/IEC JTC1/SC2/WG2 N2744 and in the table below.
Accepted
The glyph changes will be mentioned in the amendment.

E.5 Table 19 - Row 07: Arabic Supplement. The glyphs for 075B and 076A have contour errors. The crossbars must be merged with the REH and LAM outlines.
Accepted

Morroco, Negative

Technical Comments

T1. Tifinaghe.
Moroccan comments consist on the addition of the Tifinaghe characters to the ISO/IEC 10646:2003. Please see the attached document N2739 or the link.
Accepted in principle
See disposition of Canadian comment a).

Tunisia, Yes

Technical Comments

T1. Tifinaghe.
We would like to inform you that INORPI approve the ISO/IEC 10646 amendment but, considering the importance of the efforts begun by the Moroccan authorities for the protection of the amazigh language, and considering the necessity to allow and strengthen the development of the amazigh educative programs.
INORPI recommends the integration of the tifinaghe coded character in the project of amendment, as developed by the Institut royal de la Culture Amazighe (IRCAM).
Accepted in principle
See disposition of Canadian comment a).

USA: Yes with comments:

Technical comments:
T.1 Latin Extended-B
Move the newly proposed U+0238 LATIN SMALL LETTER TH WITH STRIKETHROUGH to U+1D7A.
Rationale: it is more appropriate to encode it with other phonetic extensions.
Accepted

T.2 Ideographic Character
The US is supporting the glyph change requested by document IRG N1026 for the character U+21E45 from 崧 to 崧. It should be noted that the ‘new’ glyph would be identical to the one shown by ISO/IEC 10646-2:2001 before its first amendment was applied to it. There is no change to the CJK source reference as a result of this glyph change.
Accepted

T.3 Annex E Mirrored characters in bidirectional context
With the successive amendments it is obvious that the character list in E.1 Mathematical symbols (renamed ‘Mathematical symbols and paired characters’ by this amendment) has not been kept up to date. The best source should be the Unicode file BidiMirroring-4.0.0.txt, source: http://www.unicode.org/Public/4.0-Update/BidiMirroring-4.0.0.txt maintained by the Unicode Consortium.
With the normative reference made by ISO/IEC 10646 to UAX#9 (Unicode Bidi Algorithm), it is important to keep these name lists synchronized. Annex E needs to be revised to be consistent with the file mentioned above.
Accepted in principle

T.4 HKSCS-2001
According to http://www.info.gov.hk/digital21/eng/hkscs/download/big5-iso.txt there are a large number of HKSCS-2001 characters still encoded in the Private Use Area (PUA). The following table shows the currently used PUA codes, the glyphs and proposed code allocation (as of now). The proposed code shows as a 4-5 digit hex code (already encoded as single character), a UCS Sequence Identifier or a ‘C-xxxx’ sequence indicating planned allocation for CJK Extension C. When no proposed code exists, a question mark is displayed.
Given the facts that PUA usage is far from optimal for widely used repertoire and that the CJK Extension C is not yet mature, the US is in favor of accelerating the encoding of these characters by adding them in this amendment using the following categorization:
• A new block containing Unified CJK Basic Stroke types
• Additional symbols (Miscellaneous Technical block)
• CJK Unified Ideographs

(The shaded area in the glyph cells shows the character bounding box)

<table>
<thead>
<tr>
<th>HKSCS Code</th>
<th>PUA Code</th>
<th>Glyph</th>
<th>Proposed Code</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8840</td>
<td>F303</td>
<td>☐</td>
<td>C-0001</td>
<td>xx00 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8841</td>
<td>F304</td>
<td>☐</td>
<td>C-0518</td>
<td>xx01 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8842</td>
<td>F305</td>
<td>☐</td>
<td>C-0519</td>
<td>xx02 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8843</td>
<td>F306</td>
<td>☐</td>
<td>C-0520</td>
<td>xx03 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8844</td>
<td>F307</td>
<td>☐</td>
<td>?</td>
<td>xx04 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8846</td>
<td>F309</td>
<td>☐</td>
<td>C-0400</td>
<td>xx05 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>8849</td>
<td>F30C</td>
<td>☐</td>
<td>?</td>
<td>xx06 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>884A</td>
<td>F30D</td>
<td>☐</td>
<td>C-0402</td>
<td>xx07 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>884D</td>
<td>F310</td>
<td>☐</td>
<td>C-0399</td>
<td>xx08 Unified CJK Basic Stroke</td>
</tr>
<tr>
<td>884F</td>
<td>F312</td>
<td>☐</td>
<td>C-0403</td>
<td>xx09 Unified CJK Basic Stroke</td>
</tr>
</tbody>
</table>
It should be noted that a similar situation exists for GB18030 where many characters are also encoded in the PUA area, it could be beneficial to address both issues (HKSCS and GB18030) at the same time. For reference the following table shows these PUA characters:

<table>
<thead>
<tr>
<th>GB18030 Code</th>
<th>PUA Code</th>
<th>Glyph</th>
<th>Proposed Code</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6D9</td>
<td>E78D</td>
<td>?</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>A6DA</td>
<td>E78E</td>
<td>?</td>
<td>?</td>
<td>Vertical variant of U+3002 。</td>
</tr>
<tr>
<td>A6DB</td>
<td>E78F</td>
<td>?</td>
<td>?</td>
<td>Vertical variant of U+3001 、</td>
</tr>
<tr>
<td>A6DC</td>
<td>E790</td>
<td>?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Accepted in principle
Further discussion using document WG2 N2807R and N2808R resulted in the following additions:

**Miscellaneous Technical (existing block)**
23DA  EARTH GROUND
23DB  FUSE

**CJK Basic Strokes (new block at 31C0-31EF)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31C0</td>
<td>CJK BASIC STROKE T</td>
</tr>
<tr>
<td>31C1</td>
<td>CJK BASIC STROKE WG</td>
</tr>
<tr>
<td>31C2</td>
<td>CJK BASIC STROKE XG</td>
</tr>
<tr>
<td>31C3</td>
<td>CJK BASIC STROKE XG-2</td>
</tr>
<tr>
<td>31C4</td>
<td>CJK BASIC STROKE SZ</td>
</tr>
<tr>
<td>31C5</td>
<td>CJK BASIC STROKE HZZ</td>
</tr>
<tr>
<td>31C6</td>
<td>CJK BASIC STROKE HZG</td>
</tr>
<tr>
<td>31C7</td>
<td>CJK BASIC STROKE HP</td>
</tr>
<tr>
<td>31C8</td>
<td>CJK BASIC STROKE HZWG</td>
</tr>
<tr>
<td>31C9</td>
<td>CJK BASIC STROKE SZZG</td>
</tr>
<tr>
<td>31CA</td>
<td>CJK BASIC STROKE HZT</td>
</tr>
<tr>
<td>31CB</td>
<td>CJK BASIC STROKE HZQP</td>
</tr>
<tr>
<td>31CC</td>
<td>CJK BASIC STROKE HPWG</td>
</tr>
<tr>
<td>31CD</td>
<td>CJK BASIC STROKE HZW</td>
</tr>
<tr>
<td>31CE</td>
<td>CJK BASIC STROKE HZZZ</td>
</tr>
<tr>
<td>31CF</td>
<td>CJK BASIC STROKE N</td>
</tr>
</tbody>
</table>

**CJK Unified Ideographs (existing block)**
Vertical Forms (new block at FE10-FE1F)

FE10 PRESENTATION FORM FOR VERTICAL COMMA
FE11 PRESENTATION FORM FOR VERTICAL IDEOGRAPHIC COMMA
FE12 PRESENTATION FORM FOR VERTICAL IDEOGRAPHIC FULL STOP
FE13 PRESENTATION FORM FOR VERTICAL COLON
FE14 PRESENTATION FORM FOR VERTICAL SEMICOLON
FE15 PRESENTATION FORM FOR VERTICAL EXCLAMATION MARK
FE16 PRESENTATION FORM FOR VERTICAL QUESTION MARK
FE17 PRESENTATION FORM FOR VERTICAL LEFT WHITE LENTICULAR BRACKET
FE18 PRESENTATION FORM FOR VERTICAL RIGHT WHITE LENTICULAR BRACKET
FE19 PRESENTATION FORM FOR VERTICAL HORIZONTAL ELLIPSIS

In addition, source references to existing and new CJK Unified Ideographs will be added as described in WG2 N2808R.

T.5 Phonetic symbols

a) The proposed character at position 1D79 should be renamed as follows (‘small’ inserted):
1D79 LATIN SMALL LETTER INSULAR G

Accepted

b) To complete the phonetic symbols repertoire the US is requesting the addition of the following characters:

PHONETIC EXTENSION (existing block)
1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE
1D7C LATIN SMALL LETTER IOTA WITH STROKE
1D7D LATIN SMALL LETTER P WITH STROKE
1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE
1D7F LATIN SMALL LETTER UPSILON WITH STROKE

New block extending the Phonetic symbols (block name to be determined)
1D80 LATIN SMALL LETTER B WITH PALATAL HOOK
1D81 LATIN SMALL LETTER D WITH PALATAL HOOK
1D82 LATIN SMALL LETTER F WITH PALATAL HOOK
1D83 LATIN SMALL LETTER G WITH PALATAL HOOK
1D84 LATIN SMALL LETTER K WITH PALATAL HOOK
1D85 LATIN SMALL LETTER L WITH PALATAL HOOK
1D86 LATIN SMALL LETTER M WITH PALATAL HOOK
1D87 LATIN SMALL LETTER N WITH PALATAL HOOK
1D88 LATIN SMALL LETTER P WITH PALATAL HOOK
1D89 LATIN SMALL LETTER R WITH PALATAL HOOK
1D8A LATIN SMALL LETTER S WITH PALATAL HOOK
1D8B LATIN SMALL LETTER ESH WITH PALATAL HOOK
1D8C LATIN SMALL LETTER V WITH PALATAL HOOK
1D8D LATIN SMALL LETTER X WITH PALATAL HOOK
1D8E LATIN SMALL LETTER Z WITH PALATAL HOOK
1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK
1D90 LATIN SMALL LETTER ALPHA WITH RETROFLEX HOOK
1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL
1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK
1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK
1D94 LATIN SMALL LETTER REVERSED OPEN E WITH RETROFLEX HOOK
1D95 LATIN SMALL LETTER SCHWA WITH RETROFLEX HOOK
1D96 LATIN SMALL LETTER I WITH RETROFLEX HOOK
1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK
1D98 LATIN SMALL LETTER ESH WITH RETROFLEX HOOK
1D99 LATIN SMALL LETTER U WITH RETROFLEX HOOK
1D9A LATIN SMALL LETTER EZH WITH RETROFLEX HOOK
1D9B MODIFIER LETTER SMALL TURNED ALPHA
1D9C MODIFIER LETTER SMALL C
1D9D MODIFIER LETTER SMALL C WITH CURL
1D9E MODIFIER LETTER SMALL ETH
1D9F MODIFIER LETTER SMALL REVERSED OPEN E
The complete character proposal is WG2 N2740.

**Accepted in principle**

Accepted for inclusion in Amendment 1 with a minor code position concerning LATIN SMALL LETTER C WITH STROKE which is moved from 0238 to 023A. This results in a new block: Phonetic Extensions Supplement 1D80-1DBF with a corresponding fixed collection (fully filled) and the collection Phonetic Extensions 1D00-1D7F becoming fixed.

**T.6 Annex L Character naming guidelines**

To correct the discrepancy between the introduction of the Phags-Pa character names and the naming guidelines, the US is asking the following changes to Annex L, Rule 4.

- First paragraph add ‘medial’ before the term ‘HYPHEN-MINUS’;
- In paragraph starting with ‘The following six character’, replace ‘six’ by two;
- Remove the first 4 entries, preserving the two Hangul entries.

**Accepted**

**T.7 Coptic**

a) The following characters should be removed unless further evidence is found.

2C99 COPTIC CAPITAL LETTER AKHMIMIC KHEI and
2C9A COPTIC CAPITAL LETTER RO WITH STROKE

Rationale: Because 2C99 is not a Bohairic character, and because 2C9A is a non-alphabetic character, neither one occurs in upper-case (capital) form.

**Withdrawn**
b) The character 2CBD COPTIC SYMBOL KHRISTOS should be renamed COPTIC SYMBOL STAUROS. Rationale: The illustration for this character is not a symbol for khris oos “Christ”, as the character name would seem to indicate, but rather for stauros “cross”.

**Accepted**
The new Coptic proposal from Ireland (comment T.18) also includes that name change.

**T.8 Glagolitic**
The following character names need to be revised as follows.
2C0C GLAGOLITIC CAPITAL LETTER DJERVI
2C23 GLAGOLITIC CAPITAL LETTER YU
2C2D GLAGOLITIC CAPITAL LETTER TROKUSTASTI A
2C3C GLAGOLITIC SMALL LETTER DJERVI
2C5D GLAGOLITIC SMALL LETTER TROKUSTASTI A

**Accepted in principle**
TROKUSTASTI changed into TROKUTASTI, see Irish comment T17.

**T.9 Ancient Greek Numbers**
The proposed block has no codepoint for ‘zero’ among the Greek symbols. This symbol occurs notably whenever a sexagesimal notation is used in astronomical texts to record degrees, minutes and seconds, or hours minutes and seconds, suggested new glyph at location 1018A:

1018A GREEK ZERO SIGN

The US is in support of adding that character as proposed by the document WG2 N 2708

**Accepted in principle**
The character glyph will be shown as a horizontal bar above a single circle (no circles at the edge of the bar).

**T.10 Miscellaneous Mathematical**
a) The proposed character at position 2692 should be renamed as follows:
2692 HAMMER AND PICK

**Accepted**
Also requested by Irish comment T.14

b) In support of WG2 N2680, the US is asking for the addition of the following mathematical symbols with glyphs as described in the document:
27C3 OPEN SUPERSET
27C4 OPEN SUBSET
27C5 LEFT S-SHAPED BAG DELIMITER
27C6 RIGHT S-SHAPED BAG DELIMITER

Note: the two first names differ from the proposal by having ‘OPEN’ instead of ‘BOUNDED’.

**Accepted in principle**
Added as specified by WG2 N2680R resulting in a reordering from the comment above:
27C3 OPEN SUBSET
27C4 OPEN SUPERSET
27C5 LEFT S-SHAPED BAG DELIMITER
27C6 RIGHT S-SHAPED BAG DELIMITER

**T.11 New Arabic characters**
The US is requesting the encoding the following 5 Arabic characters as supported by document WG2 N2723 (UTC/L2 L04-25) in the following blocks:
**ARABIC**
065D ARABIC REVERSED DAMMA
065E ARABIC FATHA WITH TWO DOTS
**ARABIC SUPPLEMENT**
076B ARABIC LETTER REH WITH TWO DOTS VERTICALLY ABOVE
076C ARABIC LETTER REH WITH HAMZA ABOVE
The US is requesting the encoding the following Tamil character as supported by document WG2 N2741 (UTC/L2 L04-73) in the Tamil block:

Accepted

0BE6 TAMIL DIGIT ZERO

Accepted

T.13 Alternate Format Characters
With respect to the issues raised in document WG2 N2648, author V.S. Umamaheswaran, the US suggests the addition of a formal definition for Alternate Format Characters in clause 4 and would support a clarification concerning these characters as described in clause 20.3 and Annex F. The US would welcome such clarification in this PDAM text.

Accepted

In addition to the addition of a formal definition for 'Format character' proposed in disposition of Irish comment T.1, the following changes are to be made:

Sub-clause 20.1 Space characters
Add to the list: 1680, 180E, 202F and 205F
(note that 202F and 205F are still Format Characters and will still be again listed in 20.3)

Sub-clause 20.3 renamed 'Format Characters'
Change first sentence of first paragraph to say:
“The following characters are format characters.”
Add to the list the 9 format characters described in sub-clause 20.5

Remove clause 20.5 and renumber 20.6 accordingly.

Clause 26 Rename it to 'Special features of individual scripts and symbol repertoires'
Add a sub-clause 26.1 identical to sub-clause U.1 Byzantine musical symbols.

Annex F, Change first paragraph as follows:
“There is a special class of characters called Format Characters the primary purpose of which is to affect the layout or processing of characters around them. With few exceptions, these characters do not have printable graphical symbols, and are thus represented, like the space characters, by dotted boxes in the character code tables.”
Add a sub-clause F.6 identical to sub-clause U.2 Western musical symbols

Delete Annex U.

T.14 JIS-x-213 source reference
JIS-x-213 has been revised with new CJK source references; this should be added to the appropriate CJK source files.

Accepted

For characters 4FF1 俱, 525D 剱, 541E 吞, 5653 嘘, 59F8 妍, 5C5B 屏, 5E77 弁, 7626 瘦, 7E6B 繫 and 20B9F 咺, the JIS-x-213 source reference information available in document WG2 N2697 can be added assuming a new Kanji J source is created for JIS X 0213:2004 for the appropriate level (such as J3A). The two exceptions are 7626 瘦 and 7E6B 繫 which already have J sources (J1-4D77 and J1-545A). With help from Japan, text will be added to sub-clause 27.1 (Source references for CJK Unified ideographs) to cover that new J3A new source. An explanatory note will be added in the same sub-clause to explain the difference between original sources which are dated and frozen and updated versions of the same sources which cannot be used for referencing unless they refer to new characters not covered before by a previous version of the sources. These updated sources can always be used for mapping purpose.

T.15 Tai Lue
The US requests WG2 to make sure the ordering of the Tai Lue block respects a traditional order.
Accepted
See dispositions of comments from China T1-T6.

Editorial Comments:

E.1 Chart page 8, Table 9 Row 3
Glyph production error in cell U+031A (not a new character). A part of the glyph shows as a rectangle instead as of an angle.
Accepted

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