ISO/IEC JTC1/SC2/WG2 N 3936

Date: 2010-10-06

ISO/IEC JTC1/SC2/WG2 Coded Character Set Secretariat: Japan (JISC)

Doc. Type: Disposition of comments

Title: Disposition of comments on SC2 N 4146 (ISO/IEC CD 10646, 3rd Ed.

Information Technology - Universal Coded Character Set (UCS))

Source: Michel Suignard (project editor)
Project: JTC1 02.10646.00.00.00.03

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Comments were received from Armenia, China, Egypt, Ireland, Japan, Korea (ROK), Norway, and U.S.A. The following document is the disposition of those comments. The disposition is organized per country.

Note – The full content of the ballot comments have been included in this document to facilitate the reading. The dispositions are inserted in between these comments and are marked in <u>Underlined Bold Serif text</u>, with explanatory text in italicized serif.

As a result of these dispositions all countries with negative vote have changed their vote to positive.

Armenia: comments

Technical comments

T1. a) Armenian Dram Sign

Upon consultation with the local specialist and the Armenian Dram Sign author SARM decided to stay with its request to place the sign in the "Currency Symbols" range 20A0-20CF at the available position 20B9. One of the main reasons for that is that the currency symbols are united in one and the same block on the basis of the main elements repeated in those things, and not on the basis of national alphabets or scripts. In other words the signs in this range are grouped in accordance with their functionality alike the three-letter abbreviations for the monetary instruments.

Noted

There is no strict rule concerning the placement of currency symbols in the standard. At this point, many currency symbols are not encoded in the Currency Symbols block, but instead in their script block (for example THAI CURRENCY SYMBOL BAHT in 0BF9, GUJARATI RUPEE SIGN in 0AF1) or in other block. The table 15.1 in the Unicode Standard (section 15.1) shows these locations. The Currency block tends to be reserved for symbols that are used across multiple script contexts and have no style dependencies with their own script. The script blocks are used when the currency has a close relationship with a letter form in their related script block. This is clearly the case here with the letter form being 0534 ARMENIAN CAPITAL LETTER DA. Based on this, the location stays unchanged.

T1. b) Armenian Eternity Sign

We also propose to involve Armenian Eternity Sign in ISO CD 10646 (3-rd Ed.). Please find attached the relevant information.

Out of scope

This was discussed separately through document WG2 N3923 and N 3924. The characters will be added to a future amendment (Amd 1) as follows:

1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN 1F53F LEFT-FACING ARMENIAN ETERNITY SIGN

China: Positive with comments

China is in favor of N4146 with comments.

Technical comment

T1. Fonts for Multi-column code charts of CJK Unified Ideographs (main block and extensions)

The fonts of Multi-column code charts of CJK Unified Ideographs (main block and extensions) must be corrected according to IRG suggestions. The suggestions are hopefully be available after IRG#35 in November, 2010. **Accepted**

Some modifications concerning the main block and Extension A (BMP CJK Unified Ideographs) were already done in the 2nd edition ISO/IEC 10646 which is going into FDIS stage. These modifications were discussed in IRG#34 and have been reviewed by IRG before inclusion in the FDIS. They will be carried over in the 3rd edition as well. However the multi-column format for CJK Unified Ideograph Extension B is new for this edition and will go through a process similar to what done for the BMP CJK Unified Ideographs. It is expected that IRG#35 will do a first review of the suggested changes. If some changes are made available to the project editor shortly after IRG#35 it is even possible to incorporate them in the FCD for the 3rd edition. Otherwise they can be processed as ballot comments to the FCD.

Egypt: Positive with comments

Technical comments

T1. Arabic character names

The existing Arabic character name used for these letters are not the classical naming. Please change to the proposed writing. This will facilitate the understanding for this character by all Arabic speaking users.

- replace all (BEH) with (BA')
- replace all (TEH) with (TA')
- replace all (THEH) with (THA')
- replace all (HAH) with (HA')
- replace all (KHAH) with (KHA')
- replace all (REH) with (RA')
- replace all (ZAIN) with (ZAY)
- replace all (ZAH) with (DHA')
- replace all (FEH) with (FA')
- replace all (HEH) with (HA)
- replace all (YEH) with (YA')
- replace (WASLA) with (WASL)

Not accepted

There are several reasons to not accept this request:

- 1) The current names have been in use for a long time in ISO/IEC character standards, not only in ISO/IEC 10646, but also ISO/IEC 8859-6 and others.
- 2) Per sub-clause 24.2 the character names cannot include an apostrophe.
- *3) Per clause 7, the character names cannot be changed.*

A short note will be added as introduction to the Arabic block (0600-06FF) concerning common transliteration for Arabic letter such as the one used in DIN31365:

Arabic names follow a naming convention derived from ISO/IEC 8859-6 different from common naming convention for Arabic letters. For example, the character 0628 ARABIC LETTER BEH is commonly named BA'.

Ireland, Negative

Ireland **disapproves** the draft with the technical and editorial comments given below. Acceptance of these comments and appropriate changes to the text will change our vote to approval.

Most of our editorial comments involve requests to replace some of the chart fonts, either because the fonts presently used are of substandard design quality (such as the Malayalam) or in order to restore a uniformity of design to Latin and common punctuation and similar characters. Over the years glyphs have been taken from several different sources, chiefly from John Fiscella, from SIL, and from Michael Everson, and this has brought about a distinct difference in the shapes of many characters. We propose to replace existing chart fonts with those given below. Note that a similar replacement for Greek and Cyrillic fonts has already been completed. Sets like General Punctuation have been included here because Supplementary Punctuation uses slightly different glyphs. We believe that the glyphs we have proposed below should be generally acceptable, though we are willing to make modifications based on SC2 and UTC recommendations to any particular glyphs which prove problematic.

Technical comments:

T1. Page 263, Row 20A: Currency Symbols.

With reference to ISO/IEC JTC1/SC2/WG2 N3862 "Proposal to encode the INDIAN RUPEE SIGN in the UCS" and to ISO/IEC JTC1/SC2/WG2 N3887 "Proposal to encode the Indian Rupee Symbol in the UCS", Ireland requests that the character INDIAN RUPEE SIGN be added at U+20B9 with the glyph as shown in N3887.

Out of scope

This was discussed separately through document WG2 N3862, N3868, N3869, and N 3887. The character will be added to the 3rd edition as follows:

20B9 INDIAN RUPEE SIGN

In addition annotation is added to 20A8 RUPEE SIGN as follows:

• India, unofficial legacy practice

T2. Page 1063, Row A72: Latin Extended-D.

Ireland reiterates its support for the character being balloted at A78F, LATIN LETTER MIDDLE DOT. Ireland opposes the removal of A78F LATIN LETTER MIDDLE DOT from the CD. However, in order to prevent confusion, we suggest that the name be changed to LATIN LETTER GLOTTAL DOT, which reflects its use as a phonetic letter in transcriptions of Tangut and Chinese.

Accepted

T3. Page 1211, Row 109A: Meroitic Cursive.

Because of the appearance of a recent article by Jochen Hallof in Beiträge zur Sudanforschung vol. 10 (2009), entitled "Ein meroitisches Zahlenostrakon aus Qasr Ibrim", presenting Meroitic numbers from 1 up to 900,000, Ireland requests the removal of the Meroitic fractions and numbers from 109C0..109F0 pending further study.

Withdrawn

T4. Page 1234, Row 1168: Takri.

Ireland requests that the Takri block be moved to U+11300-1134F. While its current position is in accordance with the placement of Takri on the Roadmap, it has long been the practice to "front" scripts in their respective zones when they proved mature enough for encoding. This is a safer practice than just sticking with the Roadmap because the size of scripts may change. In fact, the current Roadmap lists Takri with six columns when in fact it has only five. We propose no other changes to the character names or glyphs.

Withdrawn

T5. Page 1275, Row 16F0: Miao.

With reference to ISO/IEC JTC1/SC2/WG2 N3877 "Proposal for encoding additional Miao characters in the SMP of the UCS", Ireland requests the addition of five characters: U+16F0C MIAO LETTER YI TTA

U+10F0C MIAO LETTER I

• used in Hei Yi

U+16F12 MIAO LETTER YI NNA

• used in Hei Yi

U+16F31 MIAO LETTER YI DZHA

• used in Hei Yi

U+16F56 MIAO LETTER AHH

• used in Gan Yi

U+16F5B MIAO LETTER WO

· used in Hei Yi

The re-arranged code table is given below. [see document SC2 N4156]

Accepted in principle

To be in sync with comment T.2.c from the US, the name for 16F56 and 16F5B will be changed into:

U+16F56 MIAO VOWEL SIGN AHH

U+16F5B MIAO VOWEL SIGN WO

Editorial comments:

E1. Page 59, Row 000: C0 Controls and Basic Latin.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

The non-acceptance is based on the fact that the set is already uniform, therefore no change is required. The majority of Latin characters is currently provided by a single provider (Fiscilla), including this block as a whole. It is very unwise to introduce a massive change on a set which has been stable for decades. There are many regressions on the new set, for example:

- Placement of grave and acute accents on lowercase and uppercase characters is not optimal
- Size ratio between symbols and letters is different (such as 0040, 007E, etc...)

The 'Times' style is very well established and very well known by typographers and changing its appearance at this moment could be very destabilizing.

If anything the additions should be made in a manner compatible with the original 'Fiscilla' style. Any change request will need a thorough review by all national bodies and liaison organizations before inclusion in the standard.

E2. Page 64, Row 008: C1 Controls and Latin-1 Supplement.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E3. Page 69, Row 010: Latin Extended-A.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E4. Page 74, Row 018: Latin Extended-B.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E5. Page 80, Row 025: IPA Extensions.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E6. Page 84, Row 02B: Spacing Modifier Letters.

Ireland recommends that a uniform Timeslike font be used for the glyphs in this block.

Not accepted

See disposition on E1.

Page 5 of 20

E7. Page 88, Row 030: Combining Diacritical Marks.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E8. Page 130, Row 098: Bengali.

Ireland recommends that the rather inconsistent font used for Bengali be replaced with the one given in the table shown below. The font is the Akasha font, freely available under the GNU GPL licence.

Not accepted

There are some issues with the request:

- Some regression in the way combining marks are centered and relative sizing of characters.
- Licensing issues. The GP license could be problematic in the context font resources are used for chart production. The Bengali currency additions in the range 09F2-09FB are very small.

The Irish NB is encouraged to explore sources with either regular commercial licensing terms or other terms less problematic in this context. In addition any changes concerning scripts widely used in India should explicit solicit feedback and endorsement from India standardization body.

E9. Page 150, Row 0D0: Malayalam.

Ireland recommends that the rather inconsistent font used for Malayalam be replaced with the one given in the table shown below. This font is the Rachana font, freely available under the GNU GPL licence.

Accepted in principle

The issuer of the Rachana font has provided the project editor and contributing editors a new font under terms acceptable for publication.

E10. Page 153, Row 0D8: Sinhala. Ireland recommends that the font used for Sinhala be replaced with the one given in the table shown below. This font has been supplied by the Sri Lankan standards body along with their proposal to add additional numbers to the UCS.

Accepted in principle

The Sri Lankan standard has in fact proposed two fonts, one with a 'classic' style similar to the current chart style for Sinhala, the other similar to what is shown in the Irish ballot. The 'classic' style will be used.

E11. Page 242, Row 1E0: Latin Extended Additional.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E12. Page 256, Row 200: General Punctuation.

Ireland recommends that a uniform Times-like font be used for the glyphs in this block.

Not accepted

See disposition on E1.

E13. Page 1147, Row FB0: Alphabetic Presentation Forms.

Ireland recommends that a uniform Times-like font be used for the seven Latin glyphs in this block.

Not accepted

See disposition on E1.

E14. Page 1232, Row 1118: Sharada.

Ireland recommends that the dotted boxes at U+111C2 and U+111C3 be changed to conform to the shape of the dotted boxes used elsewhere in the UCS.

Accepted

[For charts appended to the Irish vote, please refer to document SC2 N4156]

As a result of these dispositions Ireland changed its vote to Yes

Japan, Positive with comments

JP.1 (Editorial): Clause 21 Normalization forms, first list

The first level of itemization should use a), b), c), ... as opposed to 1), 2), ...

Proposed change: Replace "1)", "2)", "3)", and "4)" with "a)", "b)", "c)", and "d)"...

Accepted

JP.2 (Editorial): Sub-clause 22.4 Source references for pictographic symbols, 2nd and 3rd list item,

Two notations, "Shift-JIS" and "Shift-Jis", are used to represent a same thing here. We should use a single notation consistently. All capital spelling as "JIS" is preferred.

Proposed change: Replace two occurrences of "Shift-Jis" with "Shift-JIS"...

Accepted

JP.3 (Technical): Sub-clause 23.1 List of source references, definition sentence for "GKX" source

During the review of CJK B multicolumn code chart, it is exposed that many of the G column glyphs of GKX source have significantly different shapes from those actually shown on the Kangxi dictionary. Most of the differences are within the scope of unification (as specified in Annex S), so it does not affect what UCS defines. However, Japan believes it is a bad idea to show a different glyph from the Kangxi and say the source of that particular character is Kangxi.

<u>Proposed change</u>: Rephrase the definition of GKX source to make clear that the glyphs shown on the code chart is taken from the modern Chinese standards and not from the said Kangxi dictionary directly. Japan proposes to consult IRG discussion for the exact wording.

Accepted

A note will be added in sub-clause 23.1 after the enumeration of the G source references with the following text:

Note 3 – The graphic symbol shown on the code charts for a character referenced by a Kangxi Dictionary (GKX) are in modern Chinese style which may differ slightly from the corresponding graphic symbol used in the dictionary.

JP.4 (General): Clause 31 Code charts and lists of character names, CJK B multicolumn code chart

During the early discussion of CJK B multicolumn code chart, IRG proposed to add a new source column for the glyphs in the single column code chart in the previous editions of ISO/IEC 10646. The request was not agreed on in WG 2, and the major reason was the resource problem. After several years after the discussion, the project editor kindly supplied a special version of the code chart that contains the desired column for IRG review work. It is great. Japan believes it also facilitate users of the standard.

<u>Proposed change</u>: Add another source column to the code chart to show the glyphs on the code chart in previous editions of ISO/IEC 10646..

Accepted in principle

Adding that column in the review work was made possible by populating one of the sources with no source reference in Extension B (namely U source) with the UCS code corresponding to the previous edition of ISO/IEC 10646. This will be done with the following restrictions:

- *U sources cannot be added to Extension B*,
- That new source will appear as the last source for each character in Extension B code charts.

The 'source' will be called 'UCS11' and will be documented appropriately in a new sub-clause describing the presentation for CJK UNIFIED IDEOGRAPHS EXTENSION B. The exact format will be 'UCS-hhhhh' with 'hhhhh' being the code point of the source.

JP.5 (General): Clause 31 Code charts and lists of character names, CJK B multicolumn code chart IRG is now reviewing CJK B code chart.

<u>Proposed change</u>: Update the CJK Unified Ideographs Extension B code chart appropriately to reflect the review by IRG.

Accepted

See disposition of comment T1 from China.

JP.6 (Editorial): Annex M, Item for JIS X0201-1976 under CJK

JIS X0201-1976 is currently classified under "CJK Unified Ideographs", but JIS X0201 is a Japanese version of ISO/IEC 646 (plus half-width katakana) and it contains no ideographs. Putting JIS X0201 here should be a mistake. Japan believes the major contribution of JIS X0201 to UCS is the set of half-width katakana. Proposed change: Move "JIS X0201-1976" under "General".

Accepted

JP.7 (General): Annex S,

IRG discussed on the proposed changes to Annex S and reached consensus. It is not reflected to the current CD. Update the Annex S appropriately to reflect the results of Nagaoka IRG meeting.

Accepted

This was the intent of the editor. The CD for the 3^{rd} edition had to be created before the IRG meeting took place. In addition, some minor editorial corrections were done on the FDIS candidate for the 2^{nd} edition that will be propagated to the 3^{rd} edition as well.

Korea (ROK): Negative

T1. Annotations for U31xx

1) Rep. of Korea suggests that annotations for 50 U31xx Hangul letters be added as Annex R.2:

[current text in 3ed CD]:

Annex R (informative) Names of Hangul syllables

This annex provides the full name and additional information of Hangul syllables through a linked file ...

--->

[proposed text]

Annex R (informative) Names of Hangul syllables and annotations for Hangul Letters

Annex R.1 Names of Hangul syllables

This annex R.1 provides the full name and additional information of Hangul syllables through a linked file ...

. . .

Annex R.2 Annotations for Hangul Letters

This annex R.2 provides the annotations for 50 selected Hangul letters in the range of U3131 ~ U318E.

3131 → HANGUL LETTER KIYEOK

voiceless or voiced lenis velar plosive consonant

3132 THANGUL LETTER SSANGKIYEOK

· voiceless unaspirated glottalized velar plosive consonant

...

318D · HANGUL LETTER ARAEA

• rounded open-mid back vowel

For a full list of 50 suggested annotations, see Appendix 1.

Withdrawn

2) Rep. of Korea suggests that annotations for U3181 and U3186 are deleted since annotations for these two letters are added to Annex R.2:

[current text in 3ed CD]

3181 O HANGUL LETTER YESIEUNG

old velar nasal

3186 THANGUL LETTER YEORINHIEUH

old glottal stop

--->

[proposed change]

3181 O HANGUL LETTER YESIEUNG

3186 → HANGUL LETTER YEORINHIEUH

== Rationale: As with U3181 or U3186, ROK suggests that annotations explaining the characteristics of phonemes for 50 letters in the range of U3131 ~U318E be added as Annex R.2.

Withdrawn

T2. p. 385 (and p. 389): addition of 4 characters: μL, mL, dL, kL

ROK suggests that four characters, µL, mL, dL, kL, be added to UCS.

== Rationale:

1) ISO 1000 clearly mentions that the symbols to be used for Litre is L (U0041) or l (U006C), NOT script small L (U2113)

INTERNATIONAL ISO STANDARD 1000

Third edition 1992-11-01

√ Table 5 — Units used with the SI

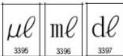
	Unit				
Quantity	Name	Symbol	Definition		
time	minute	min	1 min = 60 s		
	hour	h	1 h = 60 min		
	day	d	1 d = 24 h		
plane angle	degree	o .	$1^{\circ} = (\pi/180) \text{ rad}$		
	minute	×	1' = (1/60)"		
	second	"	1" = (1/60)		
valume	litre	J, L1)	1 l = 1 dm ³		
mass	tonne2)	t	$1 t - 10^3 kg$		

The two symbols for the litre are on an equal footing. The CIPM will, however, make a survey on the development of the use of the two symbols in order to see if one of the two may be suppressed.

Also called the metric ton in the English language.

litre	, ∟1)

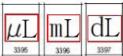
2) In ROK's "original" comments to UCS, 2ed FCD, ROK suggested that the script small L in glyphs of code positions U3395, U3396, U3397, and U3398 be changed to Latin capital L (U004C). However, ROK withdrew this comment. [current glyphs]





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[proposed glyphs]





- 3) These four characters are included in KS X 1001 (formerly KS C 5601) and it is explicitly mentioned that they stand for micro-liter, milli-liter, deci-liter, and kilo-liter, respectively.
- 4) Based on 1) above, ROK decided to change the glyphs of these four characters in KS X 1001 so that they conform to SI.

ROK decided to use capital L since small L could be easily confused with digit 1.

The glyphs in KS X 1001:2004 and KS X 1001:2010 are shown below: row col code glyph glyph

10 // 001 00 de Bijpii Bijpii					
no.	no.	pos.	2004	2010	
07	01	A7A1	$\mu\ell$ ->	μL	
07	02	A7A2	$m\ell$ ->	mL	
07	03	A7A3	$\mathrm{d}\ell ->$	dL	
07	05	A7A5	kℓ ->	kI.	

5) Considering that KS X 1001 is the basic and important character code standard in R.O.Korea and that R.O.Korea decided to change the glyphs of these four characters in KS X 1001:2010, ROK suggests that these four characters with capital L be added to UCS.

Partially accepted

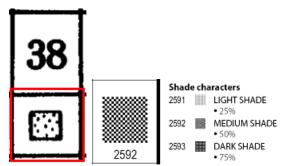
Annotation will be added to these four characters:

• glyph may uses SI symbol for liter 004C or 006C

T3. Addition of a new character SQUARE WITH DOTS

R.O.Korea suggests that one character, SQUARE WITH DOTS, in KS X 1001 be added to UCS: == Rationale:

1) Some people mapped the character in row 2, column 38 (code position 0xA2C6) in KS X 1001 to U2592.

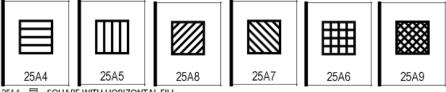


row 2, column 38, (code position U2592 0xA2C6) in KS X 1001.

- 2) However, Korean people mentioned that U2592 is much different from 0xA2C6 in KS X 1001 and requested that the glyph 0xA2C6 be added to UCS.
- As you can see, U2592 is "Shade" (its char. name is "MEDIUM SHARE"), NOT "Square" (its char. name is "SQUARE WITH DOTS").
- 3) There are six more characters with similar property (i.e., their names contain SQUARE) in KS X as shown below:



As you can see, these six characters in the right rounded rectangle above (whose column numbers are 39 ~ 44) correspond to the following UCS characters without any problem, since both KS and UCS characters are SQUAREs.



25A4 🗏 SQUARE WITH HORIZONTAL FILL

25A5 III SQUARE WITH VERTICAL FILL

25A6 III SQUARE WITH ORTHOGONAL CROSSHATCH

25A7 SQUARE WITH UPPER LEFT TO LOWER RIGHT

SQUARE WITH UPPER RIGHT TO LOWER LEFT 25A8

25A9 SQUARE WITH DIAGONAL CROSSHATCH FILL

4) As you can see below, the names of all SEVEN characters in KS X 1001 contain "SQUARE (사각형표)".

2-38	88	점무늬 사각형표
2-39		가로줄무늬 사각형표
2-40		세로줄무늬 사각형표
2-41		빗줄무늬 사각형표
2-42		왼빗줄무늬 사각형표
2-43		그물무늬 사각형표
2-44	₩	빗그물무늬 사각형표

Withdrawn

T4. Source reference for "Idu" characters

- On p. 39, the G source for 92 Korean "Idu" characters are G1 GB12345-90 as shown below:

The Hanzi G sources are ...

G1 GB12345-90 with 58 Hong Kong and 92 Korean "Idu" characters

- G source references for 91 characters in CJKU_SR.txt are of the form "G1-7Dxx" as shown below:

04E06;1.1;G1-7D3D;;;K2-2121;;;;.

04E37;3.1;G1-7D65;;;K2-212D;;H-8BF9;;;

04E41;4.0;G1-7D7B;T4-2123;J1-3030;K2-2131;;;;

...

097B0;177.9;G1-7D79;T4-617C;;;;KP1-85B6;;

- However, GB12345-90 does NOT seem to include 92 Korean "Idu" characters (and 58 Hong Kong chars). Row 93 of GB12345-90 "probably" corresponding to G1-7Dxx is empty.

Actually, GB12052-89, NOT GB12345-90, DOES contain 94 Idu characters.

1 R.O.Korea suggests that

- a) GB12345-90 instead of G1 (GB12052) be used as source reference for 91 Idu chars; OR
- b) 94 (92?, 91?) Idu characters be actually added to GB12345 (If it is done, G1 source reference will not have any problem.)
- 2 Currently G1 is said to include 92 Idu characters. However, actually there are only 91 characters whose source reference is of the form G1-7Dxx; furthermore, GB 12052-89 contains 94 Idu characters.
- R.O.Korea suggests that P.R.China clarify the differences in these three numbers and, if necessary, change the number "92" to "91" or "94".
- 3 Similar comments can be made for 58 Hong Kong characters.
- GB12345-90 does NOT seem to include 58 Hong Kong chars. Row 92 of GB12345-90 "probably" corresponding to G1-7Dxx is empty.
- R.O.Korea suggests that
- a) Actual GB_xxxxx standard instead of G1 (GB12052) be used as source reference for 58 Hong Kong chars; OR 2) 58 Hong Kong characters be actually added to GB12345 (If it is done, G1 source reference will not have any problem).

Accepted in principle

There is some background information concerning this in Ken Lunde's book (CJKV Information Processing, page 179-180 2nd edition). It is apparently true that these characters are not part of the official edition of GB12345-90. However, the following 59 characters (G1-7Cxx) were found in GB/T 15564-1995 "Code of Chinese Ideogram set for teltext broadcasting HongKong subset". Of these characters, 58 also have an H source as well; the last one 5C83 (source G1-7C59) is apparently a character from the Hakka minority.

```
04E6A;5.5;G1-7C5A;T4-2228;;;;H-9C57;;;
04E78;5.7;G1-7C40;;;;;H-9AFB;;;
0519A;14.3;G1-7C22;;;;;H-9E52;;;
051A7;14.8;G1-7C23;;;;;H-9E55;;;
0528F;18.13;G1-7C24;;;;;H-9BD3;;;
053FE;30.2;G1-7C57;;;;;H-FB59;;
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```
05497;30.5;G1-7C25;;;;H-9DF7;;;
054CB; 30.6; G1-7C26; T3-6454;;;; H-925D;;;
054E3;30.7;G1-7C29;T4-2C2D;;;V0-3164;H-8A79;;;
0551E;30.7;G1-7C28;;;;H-9E57;;;
05525;30.7;G1-7C27;;;;;H-8A41;;;
05569;30.8;G1-7C2A;;;;V1-4F4F;H-9E4E;;;
0556B;30.9;G1-7C2F;T3-6457;;;V0-323D;H-94DC;KP1-3A2B;;
05571;30.8;G1-7C2C;T3-6456;;;V0-3226;H-95DA;;;
05572;30.8;G1-7C2D;T3-6722;;;;H-9DF8;;;
05579;30.8;G1-7C2E;;;K4-001F;;H-8AB7;;;
05590;30.9;G1-7C2B;T4-365C;;;V2-8A77;H-8A46;;;
055BC;30.9;G1-7C30;;;;;H-9BDA;;;
055F0;30.10;G1-7C33;T3-6724;;;;H-9DF5;;;
055F1;30.10;G1-7C32;TF-4062;;;;H-9DF0;;;
05605;30.11;G1-7C31;T3-4636;J1-362A;K2-284A;V2-713E;H-9DEF;KP1-3A7D;;
05622;30.11;G1-7C34;T3-6459;;;;H-9DCF;;;
05625;30.11;G1-7C35;;;;;H-9DE5;;;
056A1;30.15;G1-7C36;;;;H-8AC5;;;
056A4;30.15;G1-7C58;;;;;H-97A3;;;
056B9;30.17;G1-7C37;T3-6727;;;;H-9C54;;;
056BF;30.18;G1-7C38;T4-6634;;;;H-9DBD;;;
056D6;30.25;G1-7C39;;;;H-9CC5;;;
05AF2;38.11;G1-7C3A;;;;H-8F78;;;
05B6D;39.7;G1-7C3B;;;;;H-9DC0;;;
05C83;46.3;G1-7C59;;;;;;;
063B9;64.8;G1-7C3C;;;;H-9E4C;;;
063FC;64.9;G1-7C3D;;;;;H-9E4B;;;
064DD;64.13;G1-7C3E;;;;H-8A56;;;
06530;65.2;G1-7C3F;T6-236C;;;;H-9DC7;KP1-382A;;
066F1;73.1;G1-7C21;T4-217C;;;;H-9DF1;;;
0713E;86.8;G1-7C41;;;;V0-3C46;H-8E43;;;
07140;86.8;G1-7C42;;;;;H-8B5A;;;
071F6;86.13;G1-7C43;;;;V0-3C6E;H-9E49;;;
07534;102.0;G1-7C4D;;;;;H-9DF4;;;
07666;104.15;G1-7C44;;;;;H-9E59;;;
07793;109.10;G1-7C45;;;;;H-8FD4;;;
077CB;109.15;G1-7C46;;;;H-98EF;;;
07F49;121.12;G1-7C47;;;;;H-9DD1;;;
0810C;130.6;G1-7C48;;;;H-9974;;;
08137;130.7;G1-7C49;;;;;H-9563;;;
081A5;130.12;G1-7C5B;;;;;H-99A8;;;
081B6;130.12;G1-7C4A;;;;;H-9E61;;;
08226;137.4;G1-7C4B;T4-2F4F;;;;H-FD77;KP1-6C90;;
08254;137.9;G1-7C4C;;;;V2-8231;H-99AC;;;
08804;142.13;G1-7C4E;T5-6943;;;;H-9E5E;;;
088C7;145.6;G1-7C4F;;;;;H-9E60;;;
08E0E;157.7;G1-7C50;;;;;H-9DBF;;;
08E2D;157.8;G1-7C51;;;;V3-3841;H-9E5A;;;
08E80;157.11;G1-7C52;;;;;H-9DAE;;;
08EDA;159.4;G1-7C53;T4-3563;;;;H-9BD1;;;
0922A;167.4;G1-7C54;;;;H-9663;;;
09385;167.9;G1-7C55;TF-5D41;;;;H-FEB0;;;
09BED;195.8;G1-7C56;T4-6266;;;;H-9ECA;;;
```

As a result, the G1 source will be replaced by a new source GH corresponding to GB15564-1995 and the entries in CJKU SR.txt will be amended as follow:

```
04E6A; 5.5; GH-1201; T4-2228;;;; H-9C57;;;
04E78;5.7;GH-1202;;;;;H-9AFB;;;
0519A;14.3;GH-1204;;;;;H-9E52;;;
051A7;14.8;GH-1205;;;;H-9E55;;;
0528F;18.13;GH-1206;;;;;H-9BD3;;;
053FE;30.2;GH-1207;;;;H-FB59;;;
05497;30.5;GH-1214;;;;;H-9DF7;;;
054CB; 30.6; GH-1215; T3-6454;;;; H-925D;;;
054E3;30.7;GH-1216;T4-2C2D;;;V0-3164;H-8A79;;;
0551E;30.7;GH-1218;;;;;H-9E57;;;
05525;30.7;GH-1219;;;;;H-8A41;;;
05569;30.8;GH-1221;;;;V1-4F4F;H-9E4E;;;
0556B; 30.9; GH-1222; T3-6457;;; V0-323D; H-94DC; KP1-3A2B;;
05571;30.8;GH-1223;T3-6456;;;V0-3226;H-95DA;;;
05572;30.8;GH-1224;T3-6722;;;;H-9DF8;;;
05579;30.8;GH-1225;;;K4-001F;;H-8AB7;;;
```

```
05590;30.9;GH-1226;T4-365C;;;V2-8A77;H-8A46;;;
055BC;30.9;GH-1228;;;;;H-9BDA;;;
055F0;30.10;GH-1229;T3-6724;;;;H-9DF5;;;
055F1;30.10;GH-1230;TF-4062;;;;H-9DF0;;;
05605;30.11;GH-1231;T3-4636;J1-362A;K2-284A;V2-713E;H-9DEF;KP1-3A7D;;
05622;30.11;GH-1232;T3-6459;;;;H-9DCF;;;
05625;30.11;GH-1233;;;;;H-9DE5;;;
056A1;30.15;GH-1238;;;;;H-8AC5;;;
056A4;30.15;GH-1239;;;;;H-97A3;;;
056B9;30.17;GH-1102;T3-6727;;;;H-9C54;;;
056BF; 30.18; GH-1240; T4-6634;;;; H-9DBD;;;
056D6;30.25;GH-1241;;;;;H-9CC5;;;
05AF2;38.11;GH-1245;;;;H-8F78;;;
05B6D; 39.7; GH-1246;;;;; H-9DC0;;;
05C83;46.3;GH-1105;;;;;;;
063B9;64.8;GH-1254;;;;H-9E4C;;;
063FC;64.9;GH-1256;;;;H-9E4B;;;
064DD;64.13;GH-1258;;;;;H-8A56;;;
06530;65.2;GH-1259;T6-236C;;;;H-9DC7;KP1-382A;;
066F1;73.1;GH-1260;T4-217C;;;;H-9DF1;;;
0713E;86.8;GH-1269;;;;V0-3C46;H-8E43;;;
07140;86.8;GH-1270;;;;;H-8B5A;;;
071F6;86.13;GH-1271;;;;V0-3C6E;H-9E49;;;
07534;102.0;GH-1272;;;;H-9DF4;;;
07666;104.15;GH-1273;;;;;H-9E59;;;
07793;109.10;GH-1276;;;;H-8FD4;;;
077CB;109.15;GH-1277;;;;;H-98EF;;;
07F49;121.12;GH-1278;;;;;H-9DD1;;;
0810C;130.6;GH-1109;;;;;H-9974;;;
08137;130.7;GH-1281;;;;;H-9563;;;
081A5;130.12;GH-1110;;;;;H-99A8;;;
081B6;130.12;GH-1283;;;;;H-9E61;;;
08226;137.4;GH-1284;T4-2F4F;;;;H-FD77;KP1-6C90;;
08254;137.9;GH-1111;;;;V2-8231;H-99AC;;;
08804;142.13;GH-1112;T5-6943;;;;H-9E5E;;;
088C7;145.6;GH-1285;;;;;H-9E60;;;
08E0E;157.7;GH-1288;;;;;H-9DBF;;;
08E2D;157.8;GH-1289;;;;V3-3841;H-9E5A;;;
08E80;157.11;GH-1290;;;;;H-9DAE;;;
08EDA;159.4;GH-1113;T4-3563;;;;H-9BD1;;;
0922A;167.4;GH-1291;;;;;H-9663;;;
09385;167.9;GH-1293;TF-5D41;;;;H-FEB0;;;
09BED;195.8;GH-1116;T4-6266;;;;H-9ECA;;;
```

All the characters in the G1-7D21 to G1-7D7E ranges with source reference are shown below (there are 3 holes: 7D4D, 7D71, and 7D78) for a total of 91 characters.

```
04E06;1.1;G1-7D3D;;;K2-2121;;;;
04E37;3.1;G1-7D65;;;K2-212D;;H-8BF9;;;
04E41; 4.0; G1-7D7B; T4-2123; J1-3030; K2-2131;;;;;
04E4A; 4.2; G1-7D6B;;; K2-2135;;;;
04E5B;5.0;G1-7D70;;;K2-2139;;H-8BC6;;;
04E64;5.3;G1-7D6A;;;K2-213C;;;KP1-344F;;
04E65;5.3;G1-7D6C;;;K2-213D;;;;;
04E6B;5.5;G1-7D21;;;K0-4A61;;;KP0-CDE1;;
04E6C;5.5;G1-7D24;;;K1-5828;;;KP1-3454;;
04E6D;5.5;G1-7D32;;;K0-544C;;;KP0-D6CA;;
04E6E;5.5;G1-7D3F;;;K2-213F;;;KP1-3457;;
04E6F;5.5;G1-7D7A;;;K2-2140;;;;
04E72;5.6;G1-7D54;;;K2-2142;;;KP1-3459;;
04E76;5.7;G1-7D61;;;K0-5C63;;;KP0-DECD;;
04E7A; 5.8; G1-7D4F;;; K2-2144;;; KP1-3461;;
04E7B;5.8;G1-7D74;;;K2-2145;;;KP1-3460;;
04E7C;5.8;G1-7D5B;;;K1-6D6F;;;KP1-3462;;
04E7D;5.9;G1-7D55;;;K2-2146;;;KP1-3463;;
04E87;6.2;G1-7D3B;T3-212D;;K2-214C;;H-89D1;KP1-346E;;
04EAA; 8.5; G1-7D7D;;;;;;;
04EBD; 9.1; G1-7D37;;; K2-2153;;;;
04ED2;9.2;G1-7D73;;;K2-2159;;;;
04FA4; 9.6; G1-7D2E; ;; K2-2238; ;; KP1-3523;;
0516F;12.2;G1-7D67;;;K2-2425;;;;
0517A;12.8;G1-7D45;;;K2-2426;;;KP1-39B8;;
0536A;26.1;G1-7D39;T4-2131;;K2-256E;;;;
```

```
05381;26.11;G1-7D48;;;K2-2572;;;;
05391;27.5;G1-7D7C;;;K2-2576;;;;
053BC;28.3;G1-7D29;;;K2-2628;;;KP1-3EC7;;
054DB;30.6;G1-7D64;;;K2-2729;;;;
0551F;30.7;G1-7D26;;;K2-2747;;;;
055B8;30.9;G1-7D62;;;K2-2827;;;;
055ED; 30.10; G1-7D5D;;; K2-2842;;;;
05655;87.11;G1-7D69;T7-2163;;K2-2869;;;;
056CD;30.18;G1-7D6E;T2-7034;J1-3671;K0-7D6E;;;KP0-F6A2;;
056D5;30.22;G1-7D3A;;;K2-2948;V1-5039;;KP1-3B23;;
05788;32.5;G1-7D35;TF-2633;J0-5432;K0-535C;;H-9BBC;KP0-D6F8;;
058ED;33.2;G1-7D47;;;K2-2B3A;;;;
0591E;36.7;G1-7D7E;;;K2-2B4E;;;KP1-39E3;;
0593B; 37.3; G1-7D6D;;; K2-2B52;;; KP1-3940;;
05AA4;38.9;G1-7D51;T3-3A7A;;K0-6338;;H-876F;KP0-E4FD;;
05CBE;46.5;G1-7D5A;;J0-5633;K0-6F40;;;KP0-E8AC;;
05DEA; 48.3; G1-7D23;;; K2-2F76;;; KP0-CED1;;
05DEC;48.6;G1-7D43;;;K2-2F77;;;KP1-4037;;
05DED; 48.6; G1-7D44;;; K2-2F78;;; KP1-4036;;
O5DFC; 49.7; G1-7D60;;; K2-2F7B;;; KP1-399F;;
05EE4;53.12;G1-7D28;;;K2-3071;;;KP1-3AA0;;
0603E;61.5;G1-7D2A;;;K2-322A;;;KP1-4299;;
065C0;70.5;G1-7D3C;;;K2-3839;;;KP1-48B9;;
065D5;70.9;G1-7D76;;;K2-3840;;;;
06729;75.0;G1-7D33;;;;;;;
06730;75.1;G1-7D34;;;K2-3951;;;;
0680D;75.5;G1-7D52;;;K2-3A4B;V1-5966;H-FE4F;KP1-4B0F;;
06927;75.8;G1-7D3E;TF-3C29;;K0-5927;;;KP0-DAF4;;
0693A;75.9;G1-7D42;T4-3D71;;K2-3B64;;;KP1-4C4B;;
0698B;75.9;G1-7D5E;;;K2-3C28;;;;;
0698C;75.9;G1-7D46;TF-423C;;K2-3C29;;;KP1-4C4E;;
06A74;75.11;G1-7D53;;;K2-3D38;;H-8DC7;;;
06A75;75.12;G1-7D49;;;K1-6363;;;KP1-4D6A;;
06A7B;75.12;G1-7D5F;;;K2-3D3A;;;KP1-4D87;;
06AF7;75.18;G1-7D2B;;;K2-3D76;;;KP1-4E32;;
06B0C;75.17;G1-7D56;TF-694C;;K0-6D6B;;;KP0-E6ED;;
06B15;75.20;G1-7D75;TF-6B51;;K2-3E26;;;KP1-4E5C;;
06D4C;85.6;G1-7D41;;;K2-4046;;;KP1-512E;;
070BA;86.5;G1-7D66;T1-5233;J0-3059;K2-437C;;;KP1-5501;;
07233;87.10;G1-7D68;;;K2-4561;;;KP1-5675;;
0729C;93.12;G1-7D31;T4-512D;;;;;;
07320;94.8;G1-7D59;;;K2-4677;;;KP1-5800;;
07364;94.12;G1-7D30;;;K2-473D;;;KP0-D6C7;;
07553;102.4;G1-7D2F;TF-2C4A;;K0-534C;;H-A0C4;KP0-D5D9;;
0785B;112.6;G1-7D57;;;;;;;
07873;112.7;G1-7D58;;;K2-4C6B;;;KP1-600F;;
078D7;112.10;G1-7D40;;;;;H-FEE7;KP1-6078;;
07A24;115.8;G1-7D50;;;K2-4E64;;;KP1-6233;;
07A52;115.11;G1-7D2C;;;;;;;
07B7D;118.7;G1-7D77;;;K0-6824;;;KP0-F9E2;;
07E07;120.9;G1-7D4C;T3-662A;;K2-5274;;H-94FB;KP1-675F;;
07F56;122.3;G1-7D38;;;;;;;
07F98;123.4;G1-7D72;T4-2F2F;;K1-6B49;;;KP1-68EE;;
0824D;137.8;G1-7D22;;;K2-565D;;;KP1-6CB0;;
083BB;140.7;G1-7D2D;;;K2-577C;;;KP1-39EB;;
0848A;140.9;G1-7D27;;;K2-5873;;;;
08644;140.20;G1-7D4A;;;K2-5B23;;;KP1-70B7;;
087A6;142.10;G1-7D4E;;;K2-5C7C;;;KP1-723A;;
08968;145.14;G1-7D36;;;K2-5F43;;;KP1-7496;;
08FF2;162.5;G1-7D25;;;K0-4C26;;;KP0-CEEB;;
09007;162.6;G1-7D5C;T4-302F;;;;KP1-7D72;;
09064;162.10;G1-7D6F;TF-4C6B;;K2-657C;;H-96E0;KP1-7DE2;;
095AA;169.6;G1-7D4B;;;K2-6B38;;H-8B50;KP1-825D;;
095CF;169.9;G1-7D63;;;K2-6B45;;;;
097B0;177.9;G1-7D79;T4-617C;;;;KP1-85B6;;
```

They are also referenced in GB12052-89 (as found by Korea) and the G1 value will be replaced by a GK source (GK identifying GB12052-89) value as follows:

```
04E06;1.1;GK-6837;;K2-2121;;;;
04E37;3.1;GK-685F;;K2-212D;;H-8BF9;;
04E41;4.0;GK-6875;T4-2123;J1-3030;K2-2131;;;;
04E4A;4.2;GK-6865;;K2-2135;;;;
```

```
04E5B; 5.0; GK-686A;;; K2-2139;; H-8BC6;;;
04E64;5.3;GK-6864;;;K2-213C;;;KP1-344F;;
04E65;5.3;GK-6866;;;K2-213D;;;;
04E6B;5.5;GK-6779;;;K0-4A61;;;KP0-CDE1;;
04E6C;5.5;GK-677C;;;K1-5828;;;KP1-3454;;
04E6D;5.5;GK-682C;;;K0-544C;;;KP0-D6CA;;
04E6E;5.5;GK-6839;;;K2-213F;;;KP1-3457;;
04E6F;5.5;GK-6874;;;K2-2140;;;;;
04E72;5.6;GK-684E;;;K2-2142;;;KP1-3459;;
04E76;5.7;GK-685B;;;K0-5C63;;;KP0-DECD;;
04E7A; 5.8; GK-6849;;; K2-2144;;; KP1-3461;;
04E7B;5.8;GK-686E;;;K2-2145;;;KP1-3460;;
04E7C;5.8;GK-6855;;;K1-6D6F;;;KP1-3462;;
04E7D; 5.9; GK-684F;;; K2-2146;;; KP1-3463;;
04E87;6.2;GK-6835;T3-212D;;K2-214C;;H-89D1;KP1-346E;;
04EAA; 8.5; GK-6877;;;;;;;
04EBD; 9.1; GK-6831;;; K2-2153;;;;
04ED2;9.2;GK-686D;;;K2-2159;;;;
04FA4;9.6;GK-6828;;;K2-2238;;;KP1-3523;;
0516F;12.2;GK-6861;;;K2-2425;;;;
0517A;12.8;GK-683F;;;K2-2426;;;KP1-39B8;;
0536A; 26.1; GK-6833; T4-2131; ; K2-256E; ; ; ;
05381;26.11;GK-6842;;;K2-2572;;;;
05391;27.5;GK-6876;;;K2-2576;;;;
053BC;28.3;GK-6823;;;K2-2628;;;KP1-3EC7;;
054DB; 30.6; GK-685E;; K2-2729;;;;
0551F;30.7;GK-677E;;;K2-2747;;;;
055B8;30.9;GK-685C;;;K2-2827;;;;
055ED;30.10;GK-6857;;;K2-2842;;;;
05655;87.11;GK-6863;T7-2163;;K2-2869;;;;
056CD; 30.18; GK-6868; T2-7034; J1-3671; K0-7D6E;;; KP0-F6A2;;
056D5;30.22;GK-6834;;;K2-2948;V1-5039;;KP1-3B23;;
05788;32.5;GK-682F;TF-2633;J0-5432;K0-535C;;H-9BBC;KP0-D6F8;;
058ED; 33.2; GK-6841;;; K2-2B3A;;;;
0591E;36.7;GK-6878;;;K2-2B4E;;;KP1-39E3;;
0593B;37.3;GK-6867;;;K2-2B52;;;KP1-3940;;
05AA4;38.9;GK-684B;T3-3A7A;;K0-6338;;H-876F;KP0-E4FD;;
05CBE; 46.5; GK-6854; ; J0-5633; K0-6F40; ; ; KP0-E8AC; ;
05DEA; 48.3; GK-677B;;; K2-2F76;;; KP0-CED1;;
05DEC; 48.6; GK-683D; ;; K2-2F77; ;; KP1-4037;;
O5DED; 48.6; GK-683E;;; K2-2F78;;; KP1-4036;;
05DFC; 49.7; GK-685A;;; K2-2F7B;;; KP1-399F;;
05EE4;53.12;GK-6822;;;K2-3071;;;KP1-3AA0;;
0603E;61.5;GK-6824;;;K2-322A;;;KP1-4299;;
065C0;70.5;GK-6836;;;K2-3839;;;KP1-48B9;;
065D5;70.9;GK-6870;;;K2-3840;;;;
06729;75.0;GK-682D;;;;;;;
06730;75.1;GK-682E;;;K2-3951;;;;
0680D;75.5;GK-684C;;;K2-3A4B;V1-5966;H-FE4F;KP1-4B0F;;
06927;75.8;GK-6838;TF-3C29;;K0-5927;;;KP0-DAF4;;
0693A;75.9;GK-683C;T4-3D71;;K2-3B64;;;KP1-4C4B;;
0698B;75.9;GK-6858;;;K2-3C28;;;;
0698C;75.9;GK-6840;TF-423C;;K2-3C29;;;KP1-4C4E;;
06A74;75.11;GK-684D;;;K2-3D38;;H-8DC7;;;
06A75;75.12;GK-6843;;;K1-6363;;;KP1-4D6A;;
06A7B;75.12;GK-6859;;;K2-3D3A;;;KP1-4D87;;
06AF7;75.18;GK-6825;;;K2-3D76;;;KP1-4E32;;
06B0C;75.17;GK-6850;TF-694C;;K0-6D6B;;;KP0-E6ED;;
06B15;75.20;GK-686F;TF-6B51;;K2-3E26;;;KP1-4E5C;;
06D4C;85.6;GK-683B;;;K2-4046;;;KP1-512E;;
070BA;86.5;GK-6860;T1-5233;J0-3059;K2-437C;;;KP1-5501;;
07233;87.10;GK-6862;;;K2-4561;;;KP1-5675;;
0729C;93.12;GK-682B;T4-512D;;;;;;
07320;94.8;GK-6853;;;K2-4677;;;KP1-5800;;
07364;94.12;GK-682A;;;K2-473D;;;KP0-D6C7;;
07553;102.4;GK-6829;TF-2C4A;;K0-534C;;H-A0C4;KP0-D5D9;;
0785B;112.6;GK-6851;;;;;;;
07873;112.7;GK-6852;;;K2-4C6B;;;KP1-600F;;
078D7;112.10;GK-683A;;;;;H-FEE7;KP1-6078;;
07A24;115.8;GK-684A;;;K2-4E64;;;KP1-6233;;
07A52;115.11;GK-6826;;;;;;;
07B7D;118.7;GK-6871;;;K0-6824;;;KP0-F9E2;;
07E07;120.9;GK-6846;T3-662A;;K2-5274;;H-94FB;KP1-675F;;
```

```
07F56;122.3;GK-6832;;;;;;;
07F98;123.4;GK-686C;T4-2F2F;;K1-6B49;;;KP1-68EE;;
0824D;137.8;GK-677A;;;K2-565D;;;KP1-6CB0;;
083BB;140.7;GK-6827;;;K2-577C;;;KP1-39EB;;
0848A;140.9;GK-6821;;;K2-5873;;;
08644;140.20;GK-6844;;;K2-5B23;;;KP1-70B7;;
087A6;142.10;GK-6848;;;K2-5C7C;;;KP1-723A;;
08968;145.14;GK-6830;;;K2-5F43;;;KP1-7496;;
08FF2;162.5;GK-677D;;;K0-4C26;;;KP0-CEEB;;
09007;162.6;GK-6856;T4-302F;;;;KP1-7D72;;
09064;162.10;GK-6869;TF-4C6B;;K2-657C;;H-96E0;KP1-7DE2;;
095AA;169.6;GK-685D;;;K2-6B45;;;;
095CF;169.9;GK-685D;;;K2-6B45;;;;
```

Annex S source separation rule will also be modified to take into account these new sources.

T5. KP1-0000

- relevant text/file: CJKC_SR.txt and p. 1146 of 3ed CD
- There is no source reference to UFAD4 line in CJKC_SR.txt file in 2ed FCD.

// CJKC SR.txt in 2ed FCD

0FAD4;04039;;;;;

- However, KP1-0000 is added to UFAD4 line in CJKC_SR.txt file of 2ed CD.

// CJKC SR.txt in 3ed CD

0FAD4;04039;109.7;;;;;KP1-0000

1) R.O.Korea suggests that CJKC_SR.txt file be changed as follows (i.e., remove "KP1-0000"):

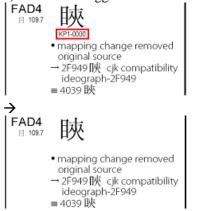
0FAD4;04039;109.7;;;;;KP1-0000

 \rightarrow

0FAD4;04039;109.7;;;;;

== Rationale: Since there is no source reference to U0FAD4, it seems best not to have any source reference in U0FAD4 line in CJKC_SR.txt..

2) R.O.Korea suggests that KP1-0000 be removed from the UFAD4 in CJK table:



- R.O.Korea suggests that the glyph for U0FAD4 remain as is;

Accepted in principle

The absence of source references for CJK compatibility ideographs will be indicated by the value CI-0000 (instead of using KP1-0000, K0-0000, and such) and the note 3 in sub-clause 23.4 will be updated accordingly. For consistency the value GKX-0000.00 used in for CJK unified ideographs for similar purpose will be changed to UI-0000 and the note 6 in sub-clause 23.2 will also be updated accordingly.

As a result of these dispositions, Korea (ROK) changed its vote to Yes

Norway: Positive with comments

General comments:

GE.1. Clause 4 Terms and definition

There are some unnecessary deviations from the ISO/IEC Directives regarding the presentation of terms and definitions; e.g. upper-case initial letter (term and definition) and the use of articles in the beginning of definitions. Proposed change: Please conform to ISO/IEC Directives regarding the presentation of terms and definitions.

Accepted

T.2. Character U+014A

Relating to the current text "LATIN CAPITAL LETTER ENG:

• glyph may also have appearance of large form of the small letter".

In Sami, the letter LATIN CAPITAL LETTER ENG (U+014A) can absolutely not have the appearance of a large form of the small letter. This seems to be in contrast to Mende (and IPA), and should be resolved with this revision. The only viable solution we see is to add another lower-case/upper-case pair, where the upper case shall have the appearance of a large form of the small letter.

That is, for Sami we continue to use 014A and 014B, whereas for Mende (and IPA) there should be a new letter pair that will ensure the correct capital letter form. This is similar to what is done today with regard to (Icelandic) eth (LATIN CAPITAL LETTER ETH - U+00D0) and Sami D with stroke (LATIN CAPITAL LETTER D WITH STROKE - U+0110), where the upper-case letter has the same form in both cases, but where the lowercase letter has a quite distinct form in the two cases (Icelandic: U+00F0, Sami: U+0111): where two different upper/lower case mappings are required, two separate pairs are needed.

The character name "eng" is normally used for Sami; it is unknown to us whether this character name is appropriate for Mende.

The current situation is quite frustrating to Sami users, and we would think also to writers of Mende and users of IPA (although upper case isn't normally used in IPA).

Out of scope

The editor fixed some typo in the original comment (041A instead 014A for the character code point). Because the removal of the annotation implies the addition of a character pair, Norway is invited to submit a separate contribution addressing both issues. Additions requests require a proposal summary form with detailed rationale for inclusion.

USA: Positive with comments

Technical comments:

T.1. Clause 25 Named UCS Sequence Identifiers"

The U.S. recommends the following three named sequences for Sinhala be added:

SINHALA CONSONANT SIGN YANSAYA; 0DCA 200D 0DBA

SINHALA CONSONANT SIGN RAKAARAANSAYA; 0DCA 200D 0DBB

SINHALA CONSONANT SIGN REPAYA; 0DBB 0DCA 200D.

Accepted in principle

With syntax modified to fit format used in clause 25

T.2. Miao

T2.a) Additional column

The U.S. asks that an additional column (16F90-16F9F) be added to the Miao block so that it extends from 16F00 to 16F9F.

Rationale: The additional column is requested in order to accommodate character requests which are anticipated in the future.

Accepted

T2.b) Reordering

The U.S. requests the Miao characters be reordered as documented in N3877 (L2/10-302), but with the name changes as noted below.

Rationale: The re-ordering is necessary because of the addition of new characters (see T.2.f.).

Accepted

c) Name change from Letter to Vowel sign

The U.S. recommends the names be changed from "MIAO LETTER" TO "MIAO VOWEL SIGN" for the characters in the range U+16F54 to 16F7E.

<u>Rationale:</u> The name changes requested in T.2.c, T.2.d, and T.2.e will make the names more consistent with names elsewhere in the UCS.

Accepted

T2.d) Name change from Letter to Sign

The U.S. requests the following name changes:

from

16F51 MIAO LETTER ASPIRATION

16F52 MIAO LETTER REFORMED VOICING

16F53 MIAO LETTER REFORMED ASPIRATION

to:

16F51 MIAO SIGN ASPIRATION

16F52 MIAO SIGN REFORMED VOICING

16F53 MIAO SIGN REFORMED ASPIRATION

Accepted

T2.e) Name change from Letter tone to tone

US T.2. e. The U.S. requests the following name changes:

from:

16F7D MIAO LETTER TONE RIGHT

16F7E MIAO LETTER TONE TOP RIGHT

16F7F MIAO LETTER TONE ABOVE. 16F80 MIAO LETTER TONE BELOW

to (with new code points):

16F8F MIAO TONE RIGHT

16F90 MIAO TONE TOP RIGHT

16F91 MIAO TONE ABOVE

16F92 MIAO TONE BELOW

Accepted

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T2.f) Addition of 5 characters

The U.S. requests the following 5 new characters be added, with glyphs and properties as documented in N3877 (L2/10-302), but with name changes as noted below for 16F56 and 16F5B:

16F0C MIAO LETTER YI TTA

16F12 MIAO LETTER YI NNA

16F31 MIAO LETTER YI DZHA

16F56 MIAO VOWEL SIGN AHH

16F5B MIAO VOWEL SIGN WO.

Accepted

See also comment T5 from Ireland.

T3. Miscellaneous Symbols and Pictographs

The U.S. requests the names of the following 3 characters be changed, to use the spelling "POMMEE" instead of "POMMY":

1F540 CIRCLED CROSS POMMEE

1F541 CROSS POMMEE WITH HALF-CIRCLE BELOW

1F542 CROSS POMMEE

<u>Rationale:</u> The spelling with -EE is more common than POMMY. The spelling POMMEE will also prevent possible confusion with a derogatory term POMMY. Supporting documentation is provided in document N3884 (L2/10-305).

Accepted

T4. Letterlike Symbols

The U.S. asks the following formal name alias be added to U+2118 SCRIPT CAPITAL P:

"WEIERSTRASS ELLIPTIC FUNCTION."

<u>Rationale:</u> The current name is a misnomer, as it doesn't describe the glyph (which is lowercase) or its function (Weierstrass elliptic function). A name alias will clarify the identity of this character.

Accepted

T5. Clause 25 Named UCS Sequence Identifiers

The US strongly prefers that the syntax for the data file containing the list of Named UCS Sequence Identifiers (nusi.txt) for 10646 maintain the same data format as the corresponding data file for the Unicode Character Database (NamedSequences.txt), or even that this data be maintained by normative reference to NamedSequences.txt, to prevent potential divergence between the two standards.

The notation for UCS Sequence Identifiers defined in Clause 6.6 is intended for use in descriptive text. In such descriptive text, an abbreviated format may be used, such as omitting the "U+" or the commas. Also, the use of angle brackets in such contexts is not problematical and helps in visual identification of the sequences. In data files, however, the notation may vary, and simpler formats that omit commas and angle brackets may be preferred. Omitting angle brackets simplifies data parsing and avoids conflicts with the use of angle brackets as part of the markup conventions for common markup languages such as HTML and XML. In binary-formatted data files the format for UCS Sequence Identifiers may be completely different.

Accordingly, the US NB requests that the documentation of the second field of nusi.txt be restored to the following: • 2nd UCS sequence: (<space>)* (hhhh|hhhhhh) (<space> (hhhh|hhhhhhhh))+

If necessary, a note can be added explaining why this format is used in the data file, and how it can be systematically related to the syntax format defined for UCS Sequence Identifiers in Clause 6.6.

Rationale: This change will prevent potential discrepancies between nusi.txt and NamedSequences.txt.

Withdrawn