



ISO/IEC JTC 1/SC 2 **N4188**
ISO/IEC JTC 1/SC 2/WG 2 **N4103**
2012-01-03

ISO/IEC JTC 1/SC 2/WG 2
Universal Coded Character Set (UCS) - ISO/IEC 10646
Secretariat: ANSI

DOC TYPE: Meeting Minutes

TITLE: Unconfirmed minutes of WG 2 meeting 58
Finnish Standards Association (SFS), Malminkatu 34, FI-00100 Helsinki,
Finland; 2011-06-06/10

SOURCE: V.S. Umamaheswaran, Recording Secretary, and Mike Ksar, Convener

PROJECT: JTC 1.02.18 – ISO/IEC 10646

STATUS: SC 2/WG 2 participants are requested to review the attached unconfirmed minutes, act on appropriate noted action items, and to send any comments or corrections to the convener as soon as possible but no later than the due date below.

ACTION ID: ACT

DUE DATE: 2012-02-02

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ISO
International Organization for Standardization
Organisation Internationale de Normalisation

ISO/IEC JTC 1/SC 2/WG 2
Universal Coded Character Set (UCS)

ISO/IEC JTC 1/SC 2 **N4188**
ISO/IEC JTC 1/SC 2/WG 2 **N4103**
2012-01-03

Title:	Unconfirmed minutes of WG 2 meeting 58 Finnish Standards Association (SFS), Malminkatu 34, FI-00100 Helsinki, Finland 2011-06-06/10
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary Mike Ksar (mikeksar@10646.com), Convener
Action:	WG 2 members and Liaison organizations
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 members and liaison organizations

1 Opening

Input document:

[4005](#) 2nd Call for meeting 58 in Helsinki, Finland 2011-06-06/10 Outline Agenda - Meeting 58; Mike Ksar; 2011-05-08

The meeting was convened at 10:05h on Monday, 2011-06-06.

Mr. Mike Ksar: Thanks to the Finnish national body, SFS, for hosting us.

Ms. Hillary Vouri: I am from the standards unit of SFS. On behalf of SFS I would like to welcome SC 2 and its working groups. SFS is a small organization; about 50 of us. We are one of the establishing groups for ISO - from 1948. Please keep your badges visible and use it at entry - from 08:00h to 16:00h. We need someone to help you outside these hours. Facilities are along the corridor. Internet access is provided. Information about lunch facilities around the area is in the handout. All restaurants have menus in English also. Some Finnish restaurants were pointed out. Some maps and information about restaurants are provided. During lunch you can leave your computers in the meeting room. SFS staff will be here. We are having a dinner cruise tomorrow; it is sponsored by CSC. Mr. Ville Savolainen of CSC, and Ms. Susanna Vahtila, Director of SFS, will also be joining us. Boarding starts at 18:20h. You will see the coast line of Helsinki. You can bring a guest with you; please sign up for the cruise today or tomorrow morning. I hope you will enjoy the visit in Helsinki and have a successful meeting.

Mr. Tero Aalto: It is about 3 years ago in Hong Kong meeting that we talked about hosting a meeting in Finland. The last WG 2 meeting in Helsinki was 16 years ago. Thank you for coming to Finland. I hope you will enjoy the visit and have a wonderful time here.

Mr. Mike Ksar: The agenda has been updated last night. Additional documents were received and have been added to the agenda dated 6 June. Now we will do the roll call.

1.1 Roll Call

Input document:

[3951](#) WG2 Experts List – post meeting 57; Convener - Mike; 2010-10-18

Mr. Mike Ksar: Dr. Umamaheswaran has printed the experts list. Please sign in and update your information and suggestions for any other deletions or additions. Also, give your business cards to Dr. Umamaheswaran to ensure your name is spelled correctly in the attendance list.

Attendees were invited to introduce themselves.

The following **30** attendees representing **10** national bodies, and **4** liaison organizations were present at different times during the meeting.

Name	Representing	Affiliation
Mike KSAR	.Convener, USA	Independent
LU Qin	.IRG Rapporteur	Hong Kong Polytechnic University
Yoshiki MIKAMI	.SC 2 Chair	Nagaoka University of Technology
Toshiko KIMURA	.SC 2 Secretary	IPSJ/ITSCJ
Bear S. TSENG	.TCA – Liaison	Academia Sinica
Lin-Mei WEI	.TCA – Liaison	Chinese Foundation for Digitization Technology
Eveline WANDL-VOGT	Austria	Austrian Academy of Sciences
Alain LABONTÉ	Canada; Editor 14651; liaison SC35	Independent
V. S. (Uma) UMAMAHESWARAN	Canada; Recording Secretary	IBM Canada Limited
CHEN Zhuang	China	Chinese Electronics Standardization Institute
HE Lifeng	China	Yunnan Minority Languages Commission
HE Zhengang	China	China Electronics Standardization Institute
Wushour SILAMU	China	Xinjiang University
Yasen YIMING	China	Xinjiang Uyghur Autonomous Regional Working Committee of Minorities Languages and Writing
ZHAO Qinglian	China	Yunnan Minority Languages Commission
Erkki KOLEHMAINEN	Finland	Independent
Hillevi VUORI	Finland	Finnish Standards Association (SFS)
Tero AALTO	Finland	CSC-IT Center for Science
Alois DICKLBERGER	Germany	University of Passau
Karl PENTZLIN	Germany	AC&S Analysis GmbH
Jürgen SCHMIDT	Germany	Phillips-University, Marburg
Laxman SWARUP	India	Bureau of Indian Standards
Michael EVERSON	Ireland; Contributing Editor	Evertime
Masahiro SEKIGUCHI	Japan	Fujitsu Limited
KANG Mi-young	Korea (Republic of)	The National Institute of the Korean Language
KIM Kyongsok	Korea (Republic of)	Busan National University
Ken WHISTLER	USA; Contributing Editor	Sybase Inc.
Michel SUIGNARD	USA; Project Editor	Independent
Deborah ANDERSON	USA; SEI, UC Berkeley – Liaison	Dept. of Linguistics, Univ., of California, Berkeley
Peter CONSTABLE	USA; Unicode Consortium – Liaison	Microsoft Corporation

Drafting committee: Messrs. Mike Ksar, Michel Suignard, Masahiro Sekiguchi, Yoshiki Mikami, and Dr. Deborah Anderson, assisted in checking the draft resolutions prepared by the recording secretary Dr. Umamaheswaran.

2 Approval of the agenda

Input document:

[4005-A](#) Draft Agenda meeting 58; Convener – Mike Ksar; 2011-03-06

Mr. Mike Ksar: The latest agenda has been posted to the WG 2 website. About 150 documents have been submitted. I would like to request everyone to let me know the topics that they would like to cover during the meeting. We would like to conclude by Thursday lunch time. OWG-SORT can meet during Thursday afternoon. Disposition of ballot comments will be one of the main items for us to cover. We will start the meetings at 8:30h for the rest of the week. We need to tidy up the meeting rooms ourselves. I appreciate the help from Messrs. Karl Pentzlin, Mr. Michel Suignard, Dr. Umamaheswaran and Dr. Deborah Anderson: in filtering and organizing the agenda items. We will review the action items. As to the minutes of the previous meeting, you can pass on your input off-line, before we approve it during the meeting. The ad hoc meetings can start at 08:00h. We can also have ad hoc meetings during the lunch hour. Five sets of hardcopies of the meeting documents have been made available for officers – and for those who prefer to work off hard copies. Several items on which the convener had initial feedback were highlighted. A few more were added to the items to be covered at this meeting, during the discussion.

Dr. Ken Whistler: Note that document [N3967](#) is a directory, though it is typed as .zip in the agenda.

The agenda document [N4005-A](#) was updated reflecting the discussion. It was also updated and posted to the WG 2 website as new topics or contributions were identified as the meeting progressed.

All the changes made during the progress of the meeting are included in the appropriate sections in these minutes. Some agenda items have been reorganized or renumbered. Agenda items that were not discussed have been deleted. The following table of contents reflects the items that were discussed.

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3 Approval of minutes of meeting 56

Input document:

[3903](#) Draft Minutes of meeting 57; Uma; 2011-03-31

Mr. Mike Ksar: You can give any comments and corrections offline to Dr. Umamaheswaran.

There was no feedback.

Disposition:

Accept the draft minutes as written.

4 Review action items from previous meeting

Input document:

[3903-AI](#) Action Items Meeting 57; Recording Secretary – Uma; 2011-03-31

Dr. Umamaheswaran reviewed and updated the action items from the previous meetings. The resulting updated status for each item is shown below. Of the 57 items reviewed, 6 items were carried forward; the rest were either completed or dropped.

(Mr. Michael Everson volunteered to draft something for AI-52-7, to include in next update to P&P.)

4.1 Outstanding action items from meeting 52, 2008-04-21/25, Redmond, WA, USA

Item	Assigned to / action (Reference resolutions in document N3454 , and unconfirmed minutes in document N3453 for meeting 52 - with any corrections noted in section 3 in the minutes of meeting 53 in document N3553)	Status
AI-52-7	Ireland (Mr. Michael Everson)	
	To take note of and act upon the following items.	
a.	M52.5 (Principles for Dandas): WG2 adopts the principles guiding the encoding of Dandas in Brahmic scripts from document N3457 , and instructs its ad hoc group on P&P to incorporate these into its document on Principles and Procedures (along with the additions from resolution M52.4 above). WG2 further invites the Irish national body to investigate and report on the current practice on use of currently encoded Dandas in relevant scripts towards finalizing the list of scripts and their corresponding Dandas. M53, M54 M55, M56 and M57 – in progress.	In progress.

4.2 Outstanding action items from meeting 54, 2009-04-20/24, Dublin, Ireland

Item	Assigned to / action (Reference resolutions in document N3604 , and unconfirmed minutes in document N3603 for meeting 54, – with any corrections noted in section 3 in the minutes of meeting 55 in document N3703)	Status
AI-54-7	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
a.	M54.18 (Nüshu script): WG2 accepts the ad hoc report in document N3635 on Nüshu script and invites the Chinese national body to provide a revised contribution by 2009-07-31, including considerations for items in the ad hoc report. M55, M56 and M57 - in progress.	Dropped.

4.3 Outstanding action items from meeting 56, San Jose, CA, USA, 2010-04-19/23

Item	Assigned to / action (Reference resolutions in document N3804 , and unconfirmed minutes in document N3803 for meeting 56 – with any corrections noted in section 3 in the minutes of meeting 57 in document N3903)	Status
AI-56-7	Unicode Consortium (Mr. Peter Constable)	
a.	To work with the project editor on a mutually acceptable syntax for USIs in NUSI.txt between Unicode and ISO/IEC 10646.	Completed; see document N4063 .
b.	To send updates to UTS #37 on Ideographic Variation Database to WG2 for feedback.	Completed; see document N4096 .
AI-56-12	All national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	

a.	(Authors of the document are from several national bodies) <i>M56.17 (Tangut script)</i> : WG2 accepts the recommendations in the Tangut ad hoc report in document N3833 and invites the authors of the Tangut proposal in document N3797, together with other Tangut experts, to submit a revised proposal taking into account the ad hoc recommendations.	Completed; see documents N4033 and N4083.
b.	(Authors of the document are from several national bodies) <i>M56.18 (Jurchen script)</i> : WG2 invites the authors of the proposal to encode Jurchen script in document N3788 to further revise the document based on feedback in document N3817, discussion at meeting 56, and in consultation with other Jurchen experts.	In progress; see document N4077.
g.	to take note of the activities on various minority scripts under the Script Encoding Initiative (document N3814), and encourage any national experts on these scripts to review and contribute.	Noted.

4.4 New action items from meeting 57, Busan, Korea (Republic of), 2010-10-04/08

Item	Assigned to / action (Reference resolutions in document N3904, and unconfirmed minutes in document N3903 for meeting 57 (this document you are reading)).	Status
AI-57-1	Recording Secretary - Dr. V.S. UMaMaheswaran	
a.	To finalize the document N3904 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N3904.
b.	To finalize the document N3903 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N3903.
AI-57-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items:	
a.	<i>M57.24 (Roadmap snapshot)</i> : WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3929) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
b.	<i>M57.03 (Request from SC35)</i> : In response to the liaison request in document N3897 from JTC 1/ SC35, WG2 accepts the recommendations in the ad hoc report in document N3943, for several glyph improvements, annotations to several keyboard symbols, and the following two named UCS sequence identifiers to the standard, using the syntax for USIs in the standard: <21F3, 20E2> KEYBOARD SYMBOL SCROLLING, and <2139, 20E2> KEYBOARD SYMBOL HELP WG2 further accepts the liaison response in document N3948, and instructs its convener to forward it to ISO/IEC JTC1/SC35 via the SC2 secretariat.	Completed.
c.	To communicate with the SC2 secretariat to ensure that the ballot summary document identifies the source (national body) associated with the ballot comments.	Completed.
d.	<i>M57.22 (Subdivision of work)</i> : WG2 instructs its convener and project editor to create a subdivision proposal (document N3947) for creation of Amendment 1 to ISO/IEC 10646 3rd edition, to incorporate characters and scripts accepted for encoding in s M57.13 to M57.21 above. The target starting dates are: PDAM 2010-12, DAM 2011-07 and FDAM 2012-05.	Completed.
e.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list under AI-57-xx-yy below.)	Completed; items with newer contributions are added to agenda of M58.
AI-57-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
	To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a.	The editor is to prepare a contribution to the UTC, to describe the proposed new Extension B format containing the UCS11 sources, along with some sample charts.	Completed.

b.	<p><i>M57.01 (Headers in CJK main block charts):</i> WG2 decides to remove the headers C, J, K, V and H in the charts for the CJK Unified Ideographs block (4E00 to 9FCB) in the BMP of the standard, retaining the glyphs in the current sequence for source references (G, T, J, K, V, H), including retaining any blank slots in their current positions. WG2 instructs its project editor to reflect this decision in the charts for FDIS of ISO/IEC 10646 2nd edition prior to issuing the FDIS ballot, and to reflect the same change in the text to be generated for the third edition at the end of this meeting.</p>	Completed; minor adjustments made by editor.
c.	<p><i>M57.02 (Miscellaneous character additions):</i> WG2 accepts the following characters for encoding in the standard:</p> <p>20B9 INDIAN RUPEE SIGN with its glyph as shown in document N3887, with a cross reference pointing out that it is not the same as the current 20A8 RUPEE SIGN.</p> <p>1CF3 VEDIC SIGN ROTATED ARDHAVISARGA 1CF4 VEDIC TONE CANDRA ABOVE 1CF5 VEDIC SIGN JIHVAMULIYA, and, 1CF6 VEDIC SIGN UPADHMANIYA with their glyphs as shown on page 14 of document N3890.</p> <p>A7F8 MODIFIER LETTER CAPITAL H WITH STROKE A7F9 MODIFIER LETTER SMALL LIGATURE OE, and A7AA LATIN CAPITAL LETTER H WITH HOOK (along with the related annotations from document N3840) with their glyphs as shown on page 27 of document N3890.</p> <p>1F16A RAISED MC SIGN, and 1F16B RAISED MD SIGN with their glyphs as shown on page 50 of document N3890.</p> <p>2CF2 COPTIC CAPITAL LETTER BOHAIRIC KHEI, and 2CF3 COPTIC SMALL LETTER BOHAIRIC KHEI with their glyphs as shown on page 17 of document N3890.</p> <p>2E33 RAISED DOT 2E34 RAISED COMMA with their glyphs as shown on page 1 of document N3912.</p> <p>2D66 TIFINAGH LETTER YE, and 2D67 TIFINAGH LETTER YO with their glyphs as shown on page 20 of document N3890.</p> <p>CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source reference UTC-00867, and with its glyph as shown in document N3885. The IRG convener is to take note of this addition and remove it from the IRG's collection for future extension.</p> <p>0EDE LAO LETTER KHMU GO, and 0EDF LAO LETTER KHMU NYO with their glyphs as shown on page 2 of document N3893.</p> <p>A792 LATIN CAPITAL LETTER C WITH BAR, and A793 LATIN SMALL LETTER C WITH BAR with their glyphs as shown in document N3896.</p>	
d.	<p><i>M57.03 (Request from SC35):</i> In response to the liaison request in document N3897 from JTC 1/ SC35, WG2 accepts the recommendations in the ad hoc report in document N3943, for several glyph improvements, annotations to several keyboard symbols, and the following two named UCS sequence identifiers to the standard, using the syntax for USIs in the standard:</p> <p><21F3, 20E2> KEYBOARD SYMBOL SCROLLING, and <2139, 20E2> KEYBOARD SYMBOL HELP WG2 further accepts the liaison response in document N3948, and instructs its convener to forward it to ISO/IEC JTC1/SC35 via the SC2 secretariat.</p>	
e.	<p><i>M57.04 (Miscellaneous name changes):</i> WG2 accepts the following character name change in the standard:</p> <p>A78F - from LATIN LETTER MIDDLE DOT to LATIN LETTER GLOTTAL DOT</p>	
f.	<p><i>M57.05 (Miscellaneous name changes):</i> WG2 accepts the following character name changes in the standard:</p> <p>1F540 - from CIRCLED CROSS POMMY to CIRCLED CROSS POMMEE 1F541 - from CROSS POMMY WITH HALF-CIRCLE BELOW to CROSS POMMEE WITH HALF-CIRCLE BELOW 1F542 - from CROSS POMMY to CROSS POMMEE</p>	

g.	<i>M57.06 (Formal name alias):</i> WG2 accepts to add the formal name alias "WEIERSTRASS ELLIPTIC FUNCTION" to 2118 SCRIPT CAPITAL P.	
h.	<i>M57.07 (CJK Ext. B glyphs from 2nd edition):</i> WG2 accepts to add the glyphs from the chart for CJK Extension B in the 2nd edition, as a set of additional glyphs to be included in the chart for CJK Extension B in the 3rd edition. These glyphs are to be identified with a pseudo-source reference in the form of UCS11-2xxxx, where 2xxxx is a code point in the SIP in the 2nd edition.	
i.	<i>M57.08 (Annex S):</i> WG2 accepts replacing Annex S in the 3rd edition with a revised version of Annex S from the 2nd edition.	
j.	<i>M57.09 (Named USIs for Sinhala):</i> WG2 accepts to add the following three named UCS sequence identifiers to the standard, using the syntax of USIs in the standard: <0DCA, 200D, 0DBA> SINHALA CONSONANT SIGN YANSAYA <0DCA, 200D, 0DBB> SINHALA CONSONANT SIGN RAKAARAANSAYA, and <0DBB, 0DCA, 200D> SINHALA CONSONANT SIGN REPAYA	
k.	<i>M57.10 (Arabic additions):</i> WG2 accepts to add 35 characters in code positions 08A0, 08A2 to 08AC, 08E4 to 08EF, and 08F4 to 08FE, in the Arabic Extended-A block, with their names, code positions and glyphs as shown on page 2 in document N3882 , in support of several African and Asian languages.	
l.	<i>M57.11 (Miao script):</i> With reference to document N3877 WG2 accepts the following changes to the encoding of Miao script: a. Add one column to the Miao block so that it extends from 16F00 to 16F9F b. Insert the following 5 additional Miao characters, rearranging the characters in the block: U+16F0C MIAO LETTER YI TTA • 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 VOWEL SIGN AHH • used in Gan Yi U+16F5B MIAO VOWEL SIGN WO • used in Hei Yi c. the following name changes: 16F51 from MIAO LETTER ASPIRATION to MIAO SIGN ASPIRATION 16F52 from MIAO LETTER REFORMED VOICING to MIAO SIGN REFORMED VOICING, 16F53 from MIAO LETTER REFORMED ASPIRATION to MIAO SIGN REFORMED ASPIRATION 16F7D from MIAO LETTER TONE RIGHT to (moved) 16F8F MIAO TONE RIGHT 16F7E from MIAO LETTER TONE TOP RIGHT to (moved) 16F90 MIAO TONE TOP RIGHT 16F7F from MIAO LETTER TONE ABOVE to (moved) 16F91 MIAO TONE ABOVE, and 16F80 from MIAO LETTER TONE BELOW to (moved) 16F92 MIAO TONE BELOW See the final chart for the Miao block is as shown in document N3945 .	
m.	<i>M57.12 (Progression of 3rd edition):</i> WG2 accepts the final disposition of CD ballot comments for the 3rd edition of ISO/IEC 10646 in document N3936 . WG2 instructs its project editor to forward the final text of the 3rd edition, which will include the changes arising from s M57.01 to M57.11, along with the final disposition of comments to the SC2 secretariat for an FCD ballot. The consolidated charts containing changes to glyphs, changes to names, and additions are in document N3945 . WG2 further instructs the IRG to review the G and T source references for CJK Unified Ideographs in extension C, in addition to assisting the project editor with its continuing review of the extension B charts. The target revised starting dates are FCD 2010-12 and FDIS 2011-09.	Completed (items b through m); see document N3967 (FCD 3 rd edition.).
n.	<i>M57.13 (Armenian additions):</i> WG2 accepts to encode: 1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN, and 1F53F LEFT-FACING ARMENIAN ETERNITY SIGN with their glyphs as shown in document N3924 .	
o.	<i>M57.14 (Sinhala numerals):</i> With reference to document N3888, WG2 accepts to: Encode 10 Sinhala numerals in code positions 0DE6 to 0DEF in the Sinhala block	

	Create a new block in the range 111E0 to 111FF named Sinhala Archaic Numbers and populate it with 20 Sinhala archaic numerals in code positions 111E1 to 111F4, with the names and glyphs as shown on pages 4, 5 and 20 of document N3891 .	
p.	<i>M57.15 (Bassa Vah script)</i> : WG2 accepts to create a new block named Bassa Vah in the range 16AD0 to 16AFF, and populate it with 37 characters, some of which are combining, in code positions 16AD0 to 16AED and 16AF0 to 16AF6, with their names and glyphs as shown on page 4 in document N3941 .	
q.	<i>M57.16 (Coptic numbers)</i> : With reference to document N3843 , WG2 accepts to: Encode 0605 ARABIC COPTIC NUMBER MARK (name and code position changed) in the Arabic block Create a new block in the range 102E0 to 102FF named Coptic Numbers and populate it with 28 characters, one of which is a combining mark, in code positions 102E0 to 102FB, with the final names and glyphs as shown on pages 2 and 7 of document N3946 .	
r.	<i>M57.17 (Sindhi script)</i> : With reference to document N3871 , WG2 accepts to create a new block named Sindhi in the range 112B0 to 112FF, and populate it with 69 characters, some of which are combining, in code positions 112B0 to 112EA and 112F0 to 112F9, with their names and glyphs as shown on page 12 in document N3946 .	
s.	<i>M57.18 (Palmyrene script)</i> : WG2 accepts to create a new block named Palmyrene in the range 10860 to 1087F, and populate it with 32 characters in code positions 10860 to 1087F, with their names and glyphs as shown on page 4 in document N3867 .	
t.	<i>M57.19 (Old North Arabian script)</i> : WG2 accepts to create a new block named Old North Arabian in the range 10A80 to 10A9F, and populate it with 32 characters in code positions 10A80 to 10A9F, with their names and glyphs as shown on pages 6 and 7 in document N3937 .	
u.	<i>M57.20 (Myanmar additions for Shan Pali)</i> : WG2 accepts to create a new block named Myanmar Extended-B in the range A9E0 to A9FF, and populate it with 7 characters in code positions A9E0 to A9E6, with their names and glyphs as shown on pages 6 and 7 in document N3906 .	
v.	<i>M57.21 (Mro script)</i> : WG2 accepts to create a new block named Mro in the range 16A40- 16A6F, and populate it with 43 characters in code positions 16A40 to 16A5E, 16A60 to 16A69, 16A6E and 16A6F, with their names and glyphs as shown on page 6 in document N3589 .	
w.	<i>M57.22 (Subdivision of work)</i> : WG2 instructs its convener and project editor to create a subdivision proposal (document N3947) for creation of Amendment 1 to ISO/IEC 10646 3rd edition, to incorporate characters and scripts accepted for encoding in s M57.13 to M57.21 above. The target starting dates are: PDAM 2010-12, DAM 2011-07 and FDAM 2012-05.	Completed; subdivision was approved by SC2 ballot.
x.	<i>M57.23 (PDAM 1 to 3rd edition)</i> : WG2 instructs its project editor to create the text of for Amendment 1 to the 3rd edition of ISO/IEC 10646, incorporating the characters accepted for encoding per M57.22 above on subdivision of work, and send it to SC2 secretariat for a PDAM ballot. The consolidated charts are in document N3946 .	Completed; (items n to v); see document N3968 (PDAM1).
AI-57-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
a.	<i>M57.02 (Miscellaneous character additions)</i> : WG2 accepts the following characters for encoding in the standard: ... h. CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source reference UTC-00867, and with its glyph as shown in document N3885 . The IRG convener is to take note of this addition and remove it from the IRG's collection for future extension. ...	In progress.
b.	M57.12 (Progression of 3rd edition): ... WG2 further instructs the IRG to review the G and T source references for CJK Unified Ideographs in extension C, in addition to assisting the project editor with its continuing review of the extension B charts. ...	Complete; see document N3967 (FCD 3 rd edition.).

AI-57-5	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	M57.25 (Annex I of P&P): WG2 accepts the text for replacing section I.2 Guideline for "to be disunified" errors, in document N3859 from the IRG, and instructs its ad hoc on Principles and Procedures to update Annex I in the P&P document (as document N3902) for adoption at WG2 meeting 58.	Completed.
AI-57-6	Ad hoc group on roadmap (Dr. Umamaheswaran)	
a.	To update the Roadmaps with the results from this meeting.	Completed; see document N4056 .
AI-57-7	Ireland (Mr. Michael Everson)	
a.	to contact Armenia about the discussion at the meeting regarding Armenian Eternity symbols, and get the feedback to WG2.	Completed.
b.	to communicate to Mr. Karl Pentzlin, with reference to his contribution on Triple Diacritics in document N3915 to pursue Solution B rather than Solution A.	Completed.
c.	to communicate to Mr. Karl Pentzlin et al a summary of WG2 meeting 57 discussion on their contribution on Latin letters for Janalif in document N3916 ,	Completed.
d.	is invited to make contributions on proposed changes or improvement to charts, for feedback from national bodies and liaison organizations, prior to bringing them up as ballot comments.	In progress.
AI-57-8	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
a.	<i>M57.26 (Uighur, Kazakh and Kirgiz):</i> With reference to requests from China in documents N3889 and N3919 , WG2 endorses the ad hoc report in document N3938 , and invites China to revise their proposal taking into considerations the feedback.	Completed; see document N4067 .
b.	<i>M57.27 (Khitan):</i> With reference to documents N3918 and N3925 on Khitan, WG2 endorses the ad hoc report in document N3942 , and invites China to submit a revised proposal addressing the feedback received to date.	In progress.
c.	<i>M57.28 (Chinese Chess symbols):</i> With reference to document N3910 on Chinese Chess Symbols, WG2 invites China to submit a revised proposal addressing the feedback received during meeting M57 and any further national body feedback received prior to WG2 meeting M58.	In progress.
AI-57-9	Norway (via Messrs. Karl Pentzlin and Michael Everson)	
a.	Is invited, with reference to the disposition of its ballot comment T2 on CD 10646 3rd edition in document N3936 , to submit a separate contribution proposing new characters addressing the issue of removing the annotation on U+041A LATIN CAPITAL LETTER ENG, including addressing any data that may be broken.	In progress.
AI-57-10	All national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
a.	document N3927 DTR on 'Definitions and relationship between symbols, icons, animated icons, pictograms, characters and glyphs'; from SC35.	Noted.
b.	documents N3895 , N3908 , N3922 , N3931 and N3940 on Duployan shorthands; WG2 may decide to include this script in Amendment 1 at Helsinki meeting.	Noted; see document N4088 capturing discussions.
c.	document N3907 on Teuthonista phonetic characters.	Noted; see document N4081 .
d.	document N3914 on Characters used in Lithuanian dialectology.	Noted; see document s N4062 and N4070 .
e.	document N3917 on Double Hyphen (revised)	Noted; see document N3983 .
f.	document N3933 on 2 combining Arabic characters for Koranic representations.	Noted.
g.	proposals carried over from previous meetings: Ahom script (N3928), Balti scripts (N2042 , N3842), Dhives Akuru script (N3848), Elbasan script (N3856), Gangga Malayu script (N3798), Szekler Hungarian Rovas - punctuation (N3670), Gondi script (N3841),	The following scripts from this list had

	Hentaigana characters (N3698), Hungarian Runic script (N3664 , N3697), Hungarian script (N3693), Khojki Script (N3883), Kpelle script (N3762), Maithili script (N3765), Manichaeen script (N3644), Mende script (N3863), Metrical Symbols (N3913), Modi script (N3780), Nabataean script (N3875), Naxi Dongba (N3935), Nushu script (N3598 , N3705 , N3719), Obsolete Simplified Chinese characters (N3695 , N3721), Old Yi script (N3288), Pahawh Hmong script (N3667), Pau Cin Hau script (N3781 , N3784 , N3865), Pyu Script (N3874), Landa script family (N3766 , N3768), Tolong Siki script (N3811), Zolai script (N3864).	updated contributions: El Basan (N3985), Gangga Malayu (N3959), Maithili (renamed Tirhuta) (N4035), Manichaeen (N4029), Naxi Dongba (N4043), Pau Cin Hau script (N4017), Szekler Hungarian Rovas (N4007), Zou (renamed from Zoulai), Balti – B script (N4016), Modi (N4034), and Metrical Symbols (N4073)
h.	<i>Resolution M57.29 (Future meetings):</i> WG2 endorses the following schedule for future meetings of WG2 and of IRG: WG2 meetings: Meeting 58 - 2011-06-06/10, Helsinki, Finland (along with SC2 plenary) Meeting 59 - 1 st Quarter 2012, USA (pending confirmation), Germany (as backup) Meeting 60 - 4 th Quarter 2012, Germany (pending confirmation); Thailand (as backup) Meeting 61 - 2 nd Quarter 2013, Looking for host IRG meetings: IRG Meeting 36, Chong Qing, China; 2011-04-11/15 IRG Meeting 37, Mountain View, CA, USA; 2011-11-07/11	Noted.

5 JTC 1 and ITTF matters

Input documents:

[3993](#) Result of voting on ISO/IEC FDIS 10646 (Ed 2), Information technology -- Universal Coded Character Set (UCS); ITTF - SC2 N 4176; 2011-02-15

SC2 [N4183](#) Notice of Publication: ISO/IEC 10646:2011, Information technology -- Universal Coded Character Set (UCS); SC2 Secretariat; 2011-05-02

The above documents were for information to WG 2. There was no discussion.

6 SC 2 matters

Input documents:

POW ISO/IEC JTC1/SC2 [Programme of Work](#) (posted to SC2 web site)

[3879](#) Notification of SC 2 Approval of SC 2 N 4144, Project Subdivision Proposal for ISO/IEC 10646 3rd Edition; SC 2 Secretariat; 2010-08-09

[3927](#) Draft Technical Report Cultural and Linguistic Interoperability – Definitions and relationship between symbols, icons, animated icons, pictograms, characters and glyphs; SC35 - Alain LaBonté, project editor, with contribution from Pr. Em. Hiroaki IKEDA; 2010-08-27

[3993](#) Result of voting on ISO/IEC FDIS 10646 (Ed 2), Information technology -- Universal Coded Character Set (UCS); ITTF - SC2 N 4176; 2011-02-15

[3994](#) Calling Notice and Draft Agenda for the 17th Plenary Meeting of ISO/IEC JTC1/SC 2 to be held in Helsinki, Finland, 2011-06-10; SC2 Secretariat – SC2 N 4174; 2011-02-10

[4045](#) WG2 Report to SC2; Convener - Mike Ksar; 2011-05-11

- [4068](#) Proposal to encode missing Latin small capital and modifier letters; ISO/IEC JTC1/SC35; Authors: ISO/IEC JTC1/SC35/WG1; 2011-03-12
- [4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25
- SC2 [N4159](#) SC 2 Business Plan for the Period October 2009 - September 2010; Prof. Yoshiki Mikami, SC 2 Acting Chairman; 2010-10-06
- SC2 [N4160](#) SC 2 Chairman's Presentation to the November 2010 JTC 1 Plenary Meeting in Belfast; Prof. Yoshiki Mikami, SC 2 Acting Chairman; 2010-10-06

The above documents were for information to WG 2 experts. There was no discussion.

6.1 Ballot results Prepare Disposition of Comments

6.1.1 FCD - 3rd Edition

Input documents:

- [3967](#) ISO/IEC FCD 10646 (3rd Ed.), Information Technology -- Universal Coded Character Set (UCS); SC2 Secretariat – 02n4168; 2010-11-27
- [4014](#) Result of voting on 02n4168, ISO/IEC FCD 10646 (3rd Ed.); SC2 Secretariat – 02n4181; 2011-03-29

From the results of voting in document [N4014](#), 21 members had voted, 2 members had commented and 8 members had not responded. Of the 21 voting members, 10 members had approved as presented, 5 members had abstained, 3 (Egypt, Germany and UK) had approved with comments, and 5 (Ireland, Japan, Korea (Republic of) and USA) had disapproved. See section 8.8.1 on page 19 for a discussion of the results and disposition of comments.

6.1.2 PDAM 1 to 3rd Edition

Input documents:

- [3968](#) ISO/IEC 10646/PDAM 1, Information Technology -- Universal Coded Character Set (UCS) -- Amendment 1: Palmyrene, Old North Arabian, Sindhi, Mro, Bassa Vah, and other characters; SC2 Secretariat – 024169; 2010-11-29
- [4009](#) Result of Voting on SC 2 N 4169, ISO/IEC 10646/PDAM 1, Information technology -- Universal Coded Character Set (UCS) -- Amendment 1: Palmyrene, Old North Arabian, Sindhi, Mro, Bassa Vah, and other characters; SC2 Secretariat 02n4178; 2011-03-03

From the results of voting in document [N4009](#), 24 members had voted, 1 member had commented and 5 members had not responded. Of the 24 voting members, 16 had approved as presented, 5 had abstained, and 3 (France, UK and USA) had approved with comments. See section 8.8.2 on page 31 for a discussion of the results and disposition of comments.

6.2 Symbols of ISO/IEC 9995-7:2009 and Amendment 1

Input documents:

- [3897](#) Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and Amendment 1 into the UCS; JTC1 SC 35/WG 1 - Liaison; 2010-08-27
- [3996](#) Comments on ISO/IEC JTC1/SC35 N1579 "Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and Amendment 1 into the UCS" [ISO/IEC JTC1/SC2/WG2 N3897]; USNB; 2011-02-11
- [4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Mr. Karl Pentzlin: Document [N3897](#) contains a request for additional symbols that have been added to ISO/IEC 9995-xx series of standards in SC35. Several of the symbols from ISO/IEC 9995-xx have been already encoded. This document had been sent to national bodies for feedback.

Discussion:

- a. Dr. Deborah Anderson: Document [N3996](#) has the U.S. comments. Similar to the evidences provided for several other symbols that we have seen in WG 2, we would like to see more evidence of their use in text.
- b. Mr. Peter Constable: We would like to see use of these symbols in text rather than just being symbols. The scope of encoding in ISO/IEC 10646 is understood by SC35. The document submitted from SC35 to SC 2 does not contain the text-use information.
- c. Mr. Karl Pentzlin: Document [N4085](#) is in response. The rationale is given under section 2 of document.

- d. Mr. Peter Constable: Interoperability between ISO/IEC 10646 and ISO/IEC 9995 is mentioned. I understand interoperability to the extent that the keyboard layout generating a character in a character set. The repertoire of characters generated from an ISO/IEC 9995 layout is understandable. As to the symbols on key tops, to show them in a document describing the keys can also be done using images. It does not automatically mean that it is a character in text. Mr. Karl Pentzlin mentions comparison between Wingdings and this proposal. They are not comparable. The Wingdings are like emoji. They are widely used as characters in several systems over the last 15 years or so. If they are being brought forward for WG 2 to encode without that background we would be asking for similar evidences of them too.
- e. Mr. Alain LaBonté: I want to point out that ISO 14755 permits ability to search the symbols on the key tops as characters. If ISO/IEC 10646 does not include these they will be forced to use the PUA.
- f. Mr. Michael Everson: It is likely that these symbols will be appearing in text. A set of characters have been supported from ISO/IEC 9995 series earlier. The revision is asking for additional symbols that appear on key top. I think the comment is being hard-nosed on these. As to Wingdings there can be questions about several of those as well.
- g. Dr. Ken Whistler: The highest level of decision to make is whether these are icons or characters suitable for encoding on key tops? The second point is, if ISO 14755 needs these the proposal needs to make the case as to why there is a deficiency. It should have been in the proposal from SC35. That need may establish the case, but it has not been made in the document in front of us.
- h. Mr. Peter Constable: In relation to ISO 14755, I have a concern that another standards body would go ahead and encode something ahead of being encoded.
- i. Dr. Umamaheswaran: What is the purpose of ISO 14755? I am trying to understand the purpose.
- j. Mr. Alain LaBonté: It permits searching of the symbols representing key tops from a database or in documentation.
- k. Mr. Masahiro Sekiguchi: I have some comments on the arguments from Mr. Alain LaBonté. I have not read ISO 14755. The underlying OS implementation must be able to support all these characters. It is broken. You mentioned that the keyboard must be able to generate the character from the key top to be able to do what the standard says.
- l. Mr. Alain LaBonté: The ability is to generate the symbol from the key top; the ability to search for it is in ISO 14755.
- m. Mr. Mike Ksar: The ISO/IEC 9995-xx is in FDAM stage. I would prefer to have more evidence on the use of the requested symbols in text, addressing the concerns expressed. Please provide a proposal summary form along with the rationale for use in text.
- n. Dr. Ken Whistler: Certain function keys on keyboards have been associated with ISO symbols. Those symbols that have a UCS code point could be entered. It is not a precedent for all symbols to be automatically encoded in UCS.
- o. Mr. Michel Suignard: It is true that there are quite a few keyboard symbols in the work on Wingdings. It is a perfect example of work that could be done between meetings to be able to make some progress. There is quite a bit of intersection between the requested SC35 keyboard symbols.

Disposition:

SC35 is requested to provide more information regarding use of the symbols to permit WG 2 to evaluate their request better.

Relevant Resolution:

M58.28 (Request for encoding symbols from SC35): With reference to requests from SC35 in document N[3897](#), WG2 requests SC35 to provide more information on the use of these symbols in plain text, addressing the feedback in document N[3996](#). SC35 is also asked to include a Proposal Summary Form on any proposal submitted to SC 2.

7 Liaison reports

Input documents:

- [4086](#) SEI Liaison Report; Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2011-05-29
- [4096](#) Unicode Liaison Report to WG2; Unicode Consortium – Peter Constable; 2011-06-06

The above documents are for information of WG 2 experts. There was no discussion.

8 WG 2 matters

8.1 Potential ad hoc meetings:

The following ad hoc meetings were scheduled. Two other rooms are available for ad hoc groups to meet.

- a. Hungarian Runic/Rovas ad hoc:
Dr. Deborah Anderson, Messrs. Peter Constable (lead); Ken Whistler, Karl Pentzlin, Austria, and Michael Everson.
- b. Webdings and Wingdings ad hoc:
Dr. Deborah Anderson, Messrs. Peter Constable, Masahiro Sekiguchi, Karl Pentzlin, Michael Everson, Ken Whistler and Michel Suignard (lead).
- c. Uyghur ad hoc:
Messrs. Tero Aalto (lead), Woushur Silamu, and Dr. Deborah Anderson.
- d. Teuthonista ad hoc:
Dr. Deborah Anderson, Ms. Eveline Wandl-Vogt, Messrs. Karl Pentzlin (lead), Ken Whistler, Peter Constable, and Michael Everson.
- e. Naxi Dongba ad hoc:
Dr. Deborah Anderson, Messrs. Tero Aalto (lead), Ken Whistler, Peter Constable, Masahiro Sekiguchi, Karl Pentzlin, Michael Everson, Yoshiki Mikami and Chen Zhuang, plus 2 more experts from China.

8.2 Proposed additions to Principles & Procedures

Input document:

[3944](#) Proposed additions to WG2 P&P and proposal summary form; Uma; 2010-10-07

[4049](#) Proposed additions to WG2 Principles & Procedures; Uma; 2011-05-18

Dr. Umamaheswaran: Document [N4049](#) contains four separate items. Three of these items had been presented in the Busan meeting (document [N3944](#)) and I had an action item to update based on discussion in Busan. There is a fourth item added for WG 2 consideration.

Item A:

Dr. Umamaheswaran: Item A is a guideline for proposers when the proposal includes a set of decimal digits in the repertoire, that they be encoded contiguously.

Discussion:

- a. Dr. Ken Whistler: It is a great idea.
- b. Mr. Masahiro Sekiguchi: Why you mention only decimal digits, why not just digits?
- c. Dr. Ken Whistler: There is a reason for it. Many historic scripts do contain digits, but are not used in the same way as the Western decimal system. The guideline is not applicable to such historic scripts.

Disposition:

Accept item A as written.

Item B:

Dr. Umamaheswaran: Item B is another guideline; it is to identify when a script's repertoire includes characters that are already encoded.

Discussion:

- a. Mr. Michael Everson: Suggest rewording 'All' to something that is less demanding of the proposers.
- b. Mr. Peter Constable: Something like '... identify the standardized characters that are commonly used ..' would work better.

Disposition:

Accept item B modified, replacing:

".. identify all the standardized characters that are used .." with ".. identify the standardized characters that are commonly used ..".

Item C:

Dr. Umamaheswaran: Item C is regarding confusable characters. It proposes a slight modification to an existing question and an associated guideline for submitters. We had lot of discussion on this topic in Busan. There was also a discussion in a mailing list under the auspices of the Unicode Consortium. The

final consensus is captured here. The rationale behind this modification is also provided.

Disposition:

Accept item C as proposed.

Item D:

Dr. Umamaheswaran: Item D is a new proposed question, regarding radical and stroke counting for proposed ideographs. A rationale for its use in Unhand database is articulated.

Discussion:

- a. Mr. Masahiro Sekiguchi: The stroke count information does not help. I have been objecting to this kind of information. The current Unhand database provides misleading information for the unified ideographs. I have no intention to provide such information for Unhand database.
- b. Mr. Michel Suignard: The multiple-column charts for ideographs in the standard include the radical stroke index.
- c. Dr. Umamaheswaran: That is another rationale that is not mentioned in document N4049, but is implied in the question.
- d. Mr. Masahiro Sekiguchi: IRG keeps such information for its internal use.
- e. Mr. Michel Suignard: We need this information for publishing the multiple-column charts.
- f. Dr. Lu Qin: For the question, we can always say 'Yes'.
- g. Dr. Umamaheswaran: The question is requesting the radical/stroke count for each of the glyph that will be in the multiple-column charts.
- h. Mr. Masahiro Sekiguchi: I could always propose that we drop that information from the charts in the standard.
- i. Dr. Umamaheswaran: That could be another topic to discuss.
- j. Prof. Kyongsok Kim: The wording of the question is sort of confusing.
- k. Dr. Umamaheswaran: The intent of the question is to seek the information about each glyph that is included in the final charts from the proposers. I could entertain any suggested rewordings that would be satisfactory.
- l. Dr. Ken Whistler: In view of the concerns that have been expressed, we should postpone adding this question now.

Action item: IRG is requested to examine the topic and question under item D and provide feedback at the next meeting.

Disposition:

Items A, B modified and C are accepted. See relevant resolution M58.27 on page 16.

8.3 Updated Principles & Procedures

Input document:

[3902](#) Updated Principles and Procedures; Uma; 2011-03-16

Dr. Umamaheswaran: Document N[3902](#) reflects the decisions taken at the last meeting. It is for adoption at this meeting.

Relevant Resolution:

M58.27 (P&P document - adoption and additions): WG2 adopts document N[3902](#) as the updated principles and procedures. Further, WG2 accepts the additions proposed under item A, item B (with slight modification as recorded in the minutes) and item C, in document N[4049](#), and instructs its ad hoc on Principles and Procedures to update the P&P document (as document N[4102](#)) for adoption at WG2 meeting 59. IRG is requested to review and provide feedback on item D in document N[4049](#).

8.4 Roadmap snapshot

Input document:

[4056](#) Snapshot of Pictorial view of Roadmaps to BMP, SMP, SIP, TIP and SSP; Uma; 2011-05-30

Dr. Umamaheswaran: Document N[4056](#) contains the latest snapshot of roadmaps maintained by the roadmap ad hoc at the Unicode web site. The changes from the previous snapshot are listed in the document. It is for adoption at this meeting.

Relevant Resolution:

M58.26 (Roadmap snapshot): WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N[4056](#)) to the WG2 web site and communicate the same to SC 2 secretariat.

8.5 Agile working methods between WG 2 meetings

Input document:

[4061](#) Recommendation to explore agile working methods between WG2 meetings; USNB – Peter Constable & Michel Suignard; 2011-05-11

Mr. Peter Constable: As we look at the new JTC 1 procedures, and how WG 2 has worked in the past, WG 2 has met to resolve ballot comments. It has done so for both PDAM ballots and DAM ballots. JTC 1 distinguishes between enquiry drafts and committee drafts. JTC 1 procedure allows the editor to deal with ballot comments, especially the non contentious ones, without a ballot resolution document. The PDAM ballots can be faster and quick, whereas the DAM may take a longer time. I and Mr. Michel Suignard were looking at if there is a more efficient method of working with PDAMs and DAMs.

Discussion:

- a. Mr. Alain LaBonté: Are you talking about FDAM? (No.)
- b. Mr. Peter Constable: For PDAM ballots we could work between WG 2 meetings. We could have had two PDAM ballots for example between Busan and Helsinki meetings. If the meeting schedules are driven by DAM ballot reviews, the editor and secretariat could make use of the existing procedure and use electronic means of discussions, to deal with any issues.
- c. Mr. Michel Suignard: Before this meeting, I did use the electronic means to resolve the Amd. 1 comments. The proposed dispositions reflect that.
- d. Ms. Toshihiko Kimura: It is a good idea. The minimum PDAM ballot period is 2 months, and the maximum is up to 4 months.
- e. Mr. Mike Ksar: Can SC 2 secretariat arrange for the e-meetings to take place?
- f. Ms. Toshihiko Kimura: ISO Central Secretariat does have facilities for telecons.
- g. Mr. Masahiro Sekiguchi: The rules for using these facilities are a little bit more complicated. There is a standing document on it from JTC 1. Telecons may be limited to 1 hour.
- h. Mr. Michel Suignard: We may need to establish an email list with nominations from national bodies to facilitate participating in the discussion. I would like to have archiving capabilities of the discussion.
- i. Mr. Masahiro Sekiguchi: I would like to make this on a trial basis first. I have no criteria for it now.
- j. Mr. Michel Suignard: If there are any controversial items, architectural or other issues that we cannot get consensus on, we may need to postpone to WG 2 face to face. I want to get consensus among the experts on potentially non-controversial topics. This is just to facilitate and speed up the preparatory committee work.
- k. Mr. Peter Constable: In terms of the trial, for example if we start the 2nd amendment at our next meeting, we could try out this method before the following meeting.
- l. Mr. Karl Pentzlin: The editor has to ensure consensus on issues before it can be incorporated into the amendment.
- m. Dr. Umamaheswaran: There is also a JTC 1 procedure for a ballot resolution meeting that can be used by the project editor if needed.
- n. Mr. Peter Constable: Dr. Umamaheswaran raised something during conversation during the break. If we had a proposal to add a new script to Amd. 1, the question raised was what kind of process would be required to be able to add the new script to the amendment. We could say that the project editor can add as part of the ballot resolution process or project editor can decide with consensus building or we have a process like an e-meeting of the working group to arrive at a consensus. It will be nice to have an agreed upon process to allow us to include new scripts in an amendment. As an example, if topic of additions to the winding collection comes up, that could be dealt with by existing ballot resolution process. The other case is to be able to add a new script that is not part of the amendment text.
- o. Dr. Ken Whistler: I would prefer to have a bit more experience with the editor being able to deal with the disposition of ballot comments before asking the question what to do with new items to be included in an amendment.
- p. Mr. Mike Ksar: What Mr. Karl Pentzlin had expressed was that if there is no consensus using the trial process it will be postponed to the face to face meeting.
- q. Mr. Peter Constable: One of the reasons to deal with the trials between meetings was to be able to deal with a large list of items that we could not deal with in a single meeting. If other people do not want to consider that now, we can postpone that discussion.

- r. Dr. Umamaheswaran: The current scope of ballot comments and guidelines we follow as to 'what can be dealt with and what would be out of scope' would not change; it guides what the project editor can or cannot deal with.

Relevant Resolution:

M58.24 (Enhanced method for progressing PDAMs): WG2 agrees to initiate a trial period starting after meeting 58, encouraging the project editor to make use of a discussion list and teleconferencing facilities to arrive at dispositions to ballot comments, and issuing of any PDAM ballots (within the scope of current SC 2 projects and its subdivisions), between WG2 face to face meetings. WG2 requests the SC 2 secretariat to provide the needed support by establishing a discussion list and inviting national bodies and liaison organizations to nominate experts to participate in the discussions associated with ballot dispositions and related matters. Other subject matter experts may also be invited to participate at the discretion of the project editor.

8.6 Concerns on revision processes of Unicode Technical Reports

Input document:

[4092](#) **Concerns on revision processes of Unicode Technical Reports; Japan NB; 2011-06-01**

Mr. Masahiro Sekiguchi: ISO/IEC 10646 has many normative references to several Unicode Technical Reports (UTRs). There are three such normative references – to UAX 9, UAX 15 and UTS 37. Normative references are considered to be part of the standard. The Unicode consortium may update these documents and they can have some effects on ISO/IEC 10646 leading to potential divergence. Currently we do not have discussions in WG 2 to ensure synchronization. The Japanese national body would like to see some agreement between the Unicode Consortium and WG 2 so that we can review in WG 2 all updates of the normatively referenced UTRs.

Discussion:

- a. Mr. Peter Constable: I appreciate that we were given the opportunity to review the proposed document. I fully understand SC 2 is responsible for normative content of ISO/IEC 10646. Of course, the Unicode Consortium also feels it should have ownership of its standards. Over the years we have done our work on both sides adopting a cooperative stance. The Unicode Consortium will be open to suggestions. Each time we have an update it is publicly available for commenting. We could make that as a formal process with WG 2. One concern is the time factor and scheduling. A document can come from the Unicode Consortium, gets circulated to SC 2 national bodies to get some feedback and wait till next WG 2 meeting. The time delay can have impact on the work of Unicode. There are other mitigations also to consider. It has been a practice to update the references in the standard. We are proposing a new resolution to be considered and approved by WG 2.
- b. Mr. Michel Suignard: The references are always dated in ISO/IEC 10646. So, we are protected from future updates. There is a risk of divergence, however.
- c. Mr. Peter Constable: There are references, where the references can be stabilized. There are some policies in place that could make the technical contents of a particular UTR stable. If they are only editorial updates, and WG 2 accepts these, the ISO/IEC 10646 reference can be updated. There is a difference between referencing a Technical Specification versus referencing the UCD data. These have to be accommodated as well.
- d. Mr. Michel Suignard: To some extent it is related to the working among experts between meetings.
- e. Dr. Umamaheswaran: It would be better I think if we can get the circulation for review of updates to Unicode specifications directly to SC 2 and request for national body feedback.
- f. Dr. Ken Whistler: ISO policy for normative references requires notification to the committee involved identifying the differences also. Items 2 and 3 in the proposed resolution are actions for Unicode to take.

Relevant Resolution:

M58.25 (Normatively referenced Unicode Technical Reports): Considering the concerns expressed in the document [N4092](#), WG 2 requests SC 2 to adopt the following resolution and communicate the same to the Unicode Consortium.

Considering the concerns expressed in the document JTC 1/SC 2/WG 2 [N4092](#), SC 2 requests the Unicode Consortium to accept the following:

- a. When the Unicode Consortium proposes to update any Unicode Technical Report that is normatively referenced by ISO/IEC 10646, the Unicode Consortium is asked to submit a notification of the planned update and/or the draft update text to SC 2, before the Consortium officially approves the update;

- b. The Unicode Consortium will consider all feedback on such a planned update received as liaison contributions from SC 2, and expressing the opinions of SC 2 and/or its participating national bodies regarding a planned update; and
- c. In the event that the Unicode Consortium and SC 2 have different opinions on details of such an update, the Consortium will give full consideration to the SC 2 opinions and make its best effort to collaborate with SC 2 to reach a consensus.

8.7 Notes on new directives regarding amendments

Input document:

[4093](#) Notes on new directives regarding amendments; Masahiro Sekiguchi; 2011-06-01

This document is for information to WG 2 experts. It alerts WG 2 to the new JTC 1 rule – 'No more than 2 Amendments to a Standard'. There was no discussion.

8.8 Ballots disposition of comments

8.8.1 Draft disposition of comments – 3rd edition

Input documents:

The following list consists of documents that are referenced in the discussion of various ballot comments in this section:

- [02n4168](#) Text of ISO/IEC FCD 10646 (3rd Ed.); SC2 Secretariat; 2011-03-27
 - [3320](#) Proposal for encoding the Batak script in the UCS; SEI - Everson; 2008-01-25
 - [3567](#) Proposal to encode a Middle Dot letter for Phags-pa transliteration; Andrew West; 2009-04-04
 - [3678](#) On the proposed U+A78F LATIN LETTER MIDDLE DOT; Anderson/USNB; 2009-08-05
 - [3704](#) Resolutions meeting 55; Ksar; 2010-04-13
 - [3805](#) 2nd call and tentative Draft Agenda; Convener – Mike Ksar; 2010-04-10
 - [3897](#) Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and Amendment 1 into the UCS; JTC1 SC 35/WG 1 - Liaison; 2010-08-27
 - [3912](#) Revised proposal to add additional characters for Greek, Latin, and Coptic to the UCS; Michael Everson, Stephen Emmel, Siegfried G. Richter, Susana Pedro, António Emiliano; 2010-09-21
 - [3936](#) Final disposition of comments on CD ballot for 3rd Edition; Project Editor – Michel Suignard; 2010-10-08
 - [3984](#) Notes on the naming of some characters proposed in the FCD of ISO/IEC 10646:2012; Karl Pentzlin; 2011-02-02
 - [4008](#) R.O.Korea's Response to Japan's question RE: Idu chars; NB ROK; 2011-03-04
 - [4014](#) Result of voting on 02n4168, ISO/IEC FCD 10646 (3rd Ed.); SC2 Secretariat – 02n4181; 2011-03-29
 - [4023](#) Draft disposition of comments on SC2 N 4168 (ISO/IEC FCD 10646 3rd Ed., Information Technology – Universal Coded Character Set (UCS)); Project Editor, Michel Suignard; 2011-04-25
 - [4058](#) Comment on ISO/IEC 10646:2012 3rd edition – Request for U-Source; USNB; 2011-05-13
- Output document:
- [4098](#) Disposition of comments FCD; Project Editor –Michel Suignard; 2011-06-10

Document [N4023](#) contains the draft disposition of comments. It includes a copy of the comment from national bodies, arranged alphabetically on national body names. For each comment a proposed disposition is noted, identifying any items that need WG 2 discussion. Comments were received from Armenia, Egypt, Germany, Ireland, Japan, Korea (ROK), U.K, and U.S.A.

8.8.1.1 Armenia - Comments

T1. Currency symbols

Armenia requests to move the Armenian Dram Symbol to the block containing other currency symbols.

Mr. Michel Suignard: This comment is not related to the ballot text. Armenia is requesting again to move the DRAM in Armenian block. We had discussed this request earlier. I prefer not to change current assignment. I have included an extract from [N3936](#), page 2, disposition of comment T1.a) from Armenia. Disposition:

Noted. No change.

8.8.1.2 Egypt: Positive with comments

T1. Arabic character names

Egypt proposes changing the names of several Arabic characters.

Mr. Michel Suignard: This is a repeat of an earlier comment. We will have same disposition of comments as before. We do have a short note in Arabic block to indicate the difference in naming convention.

Disposition:

Not accepted.

8.8.1.3 Germany: Positive with comments

T1. ARABIC LETTER REH WITH LOOP

Reports a typo in the name for 08AA - RABIC LETTER REH WITH LOOP (at the beginning, an "A" is missing).

Discussion:

- a. Mr. Michel Suignard: The error was in a draft prior to the ballot document. The ballot document does not have the error.
- b. Mr. Karl Pentzlin: Germany will withdraw this comment because it was made on an earlier draft.

Disposition:

Withdrawn.

T2. BATAK SYMBOLS

Germany expresses its opposition to any (contemplated) removal of two currently-included Batak symbols 1BFA and 1BFB from the standard.

Discussion:

- a. Mr. Michel Suignard: You cannot oppose removal of characters that are included in the standard. You could have stated that we strongly support keeping these characters. The U.S. has opposed these characters a number of times earlier.
- b. Mr. Karl Pentzlin: I agree. We will rephrase next time we make a similar comment.

Disposition:

Noted. See U.S. comment T2 and Ireland T1.

T3. RAISED SYMBOLS (2E33-2E34)

Germany proposes renaming U+2E33 RAISED DOT, and U+2E34 RAISED COMMA, to Lifted Dot and Lifted Comma respectively, pointing to document [N3984](#) for the rationale.

Mr. Michel Suignard: We don't have in the standard the distinction about the amount something is raised by. I prefer not to introduce a new term - LIFTED versus RAISED.

Discussion:

- a. Mr. Karl Pentzlin: If it is simply 'raised' we don't have the extent of the raising. Document [N3984](#) addresses our concern.
- b. Mr. Michael Everson: These characters are from document [N3912](#). The term 'lifted' does not appear anywhere. An annotation such as 'raised halfway between full stop and middle dot' would help.
- c. Dr. Umamaheswaran: There are other RAISED characters in the standard. Do we need similar annotations for others? No.
- d. Mr. Michael Everson: The annotation is only for these characters. Other RAISings are all over the place, and are visible relative to the characters in the same block.
- e. Dr. Deborah Anderson: The U.S. would support the annotation instead of changing the name.

Disposition:

Accept in principle. Add annotation for the two characters.

T4. A78F - LATIN LETTER GLOTTAL DOT

Germany expresses its opposition to any (contemplated) removal of currently encoded A78F from the standard.

Also it proposes renaming the character and changing its annotations to:

A78F LATIN LETTER ELEVATED DOT

= turned full stop (referring to metal type)

- usually displayed at x-height
- used as glottal dot in transliteration for Phags-Pa and phonetic transcription for Tangut

References documents [N3567](#) and [N3984](#) for rationale.

Disposition:

Noted. This is another controversial character. *See also U.S. comment T1 and Ireland comment T2.*

T5. Addition to collection 288 MULTILINGUAL LATIN SUBSET

Germany requests adding 2E3A TWO-EM DASH, which is in current ballot, to collection 288. Cites DIN 2137 keyboard standard as one of the reasons.

Discussion:

- a. Mr. Michel Suignard: There is an inconsistency in the current standard regarding collection 288. It is marked as fixed in clause A.5.8 but does not show an asterisk against 288 in A.1. Neither the source document N3805, which proposed collection 284 (that got renumbered to 288 when included in the 2nd edition of the standard), nor the resolution M55.11 (in document N3704 that accepted the collection for inclusion) addressed whether the collection was fixed or not. Either we make 288 open and add the new character, or mark 288 fixed in clause A.1 also, and create a new collection 289 to include the new character.
- b. Dr. Umamaheswaran: A fixed collection identifier is to correspond to a particular repertoire. I would suggest Germany or SC35 come up with a request for new collection corresponding to the next revised ISO/IEC 9995-3 repertoire.

Disposition:

Collection 288 will be marked as fixed (add *) in clause A.1. *See relevant resolution M58.06 on page 30.*

8.8.1.4 Ireland, Negative

T1. Row 1BC: Batak

Ireland reiterates its support for the characters being balloted at 1BFA and 1BFB, giving more elaboration.

Disposition:

Noted. *See also comments T2 from U.S. and T2 from Germany.*

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

Ireland reiterates its support for the character being balloted at A78F LATIN LETTER GLOTTAL DOT, and opposes any (contemplated) removal of it, providing more elaboration.

Disposition:

Noted. *See also comments T1 from U.S. and T4 from Germany.*

T3. Row 109A: Meroitic Cursive

Ireland proposes removal of the Meroitic fractions and numbers of the characters 109C0-109F0 from the FCD pending further study with a rationale.

Discussion:

- a. Mr. Michel Suignard: I recommend removal unless satisfactory evidence is provided during the Helsinki meeting.
- b. Dr. Ken Whistler: The U.S. agrees with Ireland that these require further study.

Disposition:

Accepted. Remove 109C0 through 109F0 - Meroitic fractions and numbers, pending further study. *See relevant resolution M58.06 on page 30.*

E1. Row 098: Bengali chart

Ireland proposes a replacement chart for Bengali block with a new font.

Discussion:

- a. Mr. Michel Suignard: Ireland has to provide more information as to the inconsistency.
- b. Dr. Umamaheswaran: Ireland had an action item to make such proposals be reviewed by user communities.
- c. Mr. Peter Constable: You have not provided details about what fonts have been used, or what are the improvements. We need more information on items such as license agreements.

Disposition:

Not Accepted.

Action item: Ireland is invited to provide a contribution providing more information regarding the font used for Bengali in the charts for review and comment by national bodies and liaison organizations.

E2. Row 20D: Combining Diacritical Marks for Symbols

Ireland recommends that the erroneous dotted circles in 20E4, 20E5, 20E6, 20E7, and 20E8 be corrected.

Disposition:

Accepted. This is a production issue in generating the charts.

E3. Row AAE: Meetei Mayek Extensions

Ireland suggests that the glyph for AAF6 should be harmonized with that for 1039, 1A60, and 10A3F.

Disposition:

Accepted. The glyph for AAF6 will include a dotted circle inside. Mr. Michael Everson has the font for it.

E4. Page 1223, Row 1110: Chakma

Ireland suggests that the glyph for 11133 in the chart should be harmonized with that for 1039, 1A60, and 10A3F.

Disposition:

Accepted. The glyph for 11133 will include a dotted circle inside. Mr. Michael Everson has the font for it.

E5. Row 1F0A: Playing Cards

Ireland proposes a replacement set of more distinct and recognizable glyphs for Playing Cards.

Mr. Michel Suignard: The set that is in the current ballot was originally from Ireland, and is in the 2nd edition. See ballot response document [N4014](#). I request that a little bit more information be provided on the specific changes.

Disposition:

Accepted.

8.8.1.5 Japan, Negative

JP.1 (Editorial): Foreword, last paragraph.

Japan proposes replacing "ISO/IEC 10646:2010" with "ISO/IEC 10646:2011"

Disposition:

Accepted.

JP.2 (Editorial): Sub-clause 4.4, Note.

Japan proposes correcting "(see 0)" to "(see 4.23)"

Disposition:

Accepted.

JP.3 (Editorial): Sub-clause 9.1, Table 2

Japan proposes correcting the mistakenly capitalized first letter "z" in the third row.

Disposition:

Accepted. The string should be "zzzzyyyyyyxxxxx".

JP.4 (Editorial): Sub-clause 9.2, Table 4

Japan proposes correcting the mistakenly capitalized first letter "x" in the first row.

Disposition:

Accepted. The string should be "xxxxxxxxxxxxxxxx".

JP.5 (Editorial): Sub-clause 11, Note 2 (end of).

Japan proposes correction of "ISO/IEC 6492" with "ISO/IEC 6429".

Disposition:

Accepted.

JP.6 (Technical): Sub-clause 16.5, Variations selectors and variation sequence, Note 2.

Japan proposes replacing of "version 2007-12-14" to "version 2010-11-14" of IVD (the URL is correct).

Disposition:

Accepted. See also comment T1 from UK.

JP.7 (General): Sub-clause 23.5 and 31.3, Code charts for CJK Compatibility Ideographs and their format.
Japan proposes ideographs in the new code charts for CJK Compatibility Ideographs need checking:
Suggests either the chart to previous single-column format, or update the charts as needed.

(a) Glyphs for KP-source compatibility ideographs don't seem to be for the corresponding KP source standards

(b) A single glyph is shown (below a set of glyphs for each compatibility ideograph) for the corresponding unified ideograph. Japan considers it is not a good idea to show only one representative glyph (especially that from a different source group than the compatibility ideograph is from).

Mr. Michel Suignard: Overall, most experts see the new format as a significant improvement and because all issues raised by Japan already exist in the previous format, there seems no need to revert back to it.

Item a:

Discussion:

- a. Mr. Masahiro Sekiguchi: For item a, the problem is related to the assumption about the glyphs in the multiple-column code chart for compatibility ideograph. The assumption is that the representative glyphs are the same as the source standard glyph. We understand that the glyph is from the corresponding source standard. For compatibility the choice of the unified ideograph was previously OK. But now we have multiple-column chart for compatibility ideograph also. Japan believes that the ideograph in the charts is different from the source, especially for KP.
- b. Mr. Michel Suignard: DPRK fonts used have not changed between single-column and multiple-column formats. If there are errors exact values should be provided. I am open to suggestions in how to describe the corresponding unified ideograph.
- c. Mr. Masahiro Sekiguchi: You cannot use the same font.
- d. Dr. Ken Whistler: What you perhaps mean is the same font 'should' not be used; it is a preference statement. Then we need a suggestion for a more appropriate font.
- e. Mr. Masahiro Sekiguchi: We don't have input for DPRK. Our observation is not just on KP sources alone. Because we have changed the format to multiple columns, the standard reader's assumption is that the fonts have changed. Each column should be showing the shapes from the underlying source standard.
- f. Mr. Michael Everson: The shapes are from DPRK for example should be similar to DPRK sources.
- g. Mr. Masahiro Sekiguchi: For other columns, the same principle applies. We see some differences for KP sources.
- h. Mr. Michel Suignard: Except for KP, for all sources, I have used the different national body fonts for the sources and have used them in the multiple-column formats. For KP, there is only a single source. I don't understand what you mean when you say some KP ideographs are not following KP standard. The only reference we have is the font supplied many years ago by DPRK.
- i. Mr. Masahiro Sekiguchi: I also don't have any idea whether the font used is the same as the shapes in KP standard or not. Some Japanese experts commented that the ideographs are different from the printed version of the KP standard.
- j. Mr. Michel Suignard: In such cases, I request you ask your colleagues, to give more evidences of what the differences are with respect to the fonts used. I cannot do anything about these unless someone gives me the correct font for the problem ideographs. Since DPRK is not communicating with us I cannot do anything to fix if there is no further information available.
- k. Mr. Masahiro Sekiguchi: Even for a single-column chart the ideograph should correspond to the source standard. The expectation for a multiple-column chart is different from single-column chart.
- l. Prof. Kyongsok Kim: I don't quite understand what Japan's comment is. If the glyph is different, one could ask if it could be unified etc. If it is wrong, we need to know what is wrong with it. There are cases where compatibility ideograph can be unified. Otherwise they cannot be made equivalent to the corresponding unified ideograph.
- m. Mr. Mike Ksar: The issue is about the use of glyph in the compatibility character charts.
- n. Dr. Lu Qin: To address concern from Japan, for the KP case, we could add a notation that we have used the same font as before. Since we did not receive any updated font we simply state that the font used was sent to us by DPRK.

- o. Mr. Michel Suignard: I don't have proof that the printed version the Japanese experts claim to have compared with is different or wrong, compared to the font sent to us by DPRK earlier for the KP ideographs.
- p. Prof. Kyongsok Kim: I am not comfortable adding just a note.
- q. Mr. Michel Suignard: Will such a note address Japan's concern?
- r. Mr. Masahiro Sekiguchi: I appreciate the compromise suggestion by Dr. Lu Qin. Mr. Michel Suignard is right that the glyphs for compatibility ideographs have not changed for KP from the single-column version. Also the representative glyph is a hint to indicate the character that is encoded. The standard users may understand the glyph that has not changed to be the hint for the character that is encoded. The note suggested by Dr. Lu Qin will address our concern.
- s. Mr. Mike Ksar: The above will take care of item a. in Japan's concern.
- t. Mr. Masahiro Sekiguchi: I will send the examples of such DPRK glyph issues to you.

Item b:

Discussion:

- a. Mr. Michel Suignard: As to item b, we did discuss this earlier. For most compatibility ideographs there is usually only one source. The old format had only one glyph. The new format is keeping the same. What is the issue?
- b. Mr. Masahiro Sekiguchi: What Japan wants is: this is a compatibility ideograph, and the unified ideograph shown corresponding to it is a single code point. The choice of the glyph for the unified ideograph, the most significant glyph would be from the same source. For J-source compatibility ideographs, the unified CJK glyphs would be the JP source glyph for that unified ideograph. However there are other examples; for the original ROK ideographs etc., the same principle applies.
- c. Mr. Michel Suignard: This is not a new problem; we already have the multiple-column charts. I would invite specific proposal from Japan for me to act on this item. There are some production issues. I can certainly provide another glyph if it is more appropriate. We are talking about a couple of 100 characters. For the JP compatibility ideographs we could investigate if there is a problem.
- d. Dr. Umamaheswaran: Are you requesting that all the glyphs for the CJK unified ideographs be shown under the compatibility ideographs?
- e. Mr. Masahiro Sekiguchi: That is an alternative solution to our concern.
- f. Mr. Michel Suignard: Showing multiple glyphs for the equivalence is a production issue.

Disposition:

Item a. Accommodated by the note.

Item b. Await further clarification and examples from Japan.

Action Item: Japan is invited to provide further explanation of the problem with examples on item b in their ballot comment JP.7.

JP.8 (General): Sub-clause 31.3, Name lists for CJK compatibility ideographs.

- a. Japan requests checking and revising grouping under names lists when ideographs from different sources are listed; for example: J3-763B under Pronunciation variants from KS X1001:1998.
- b. Japan also point out that many of additional information led by a Right Arrow seem inappropriate and don't make sense.

Discussion:

- a. Mr. Michel Suignard: As to the grouping issue, item a, the multiple use can be handled by additional annotations. The pronunciation variants and the IBM-32 are the only ones that have multiple sourced ideographs. Additional annotation on these would be better choice.
- b. Dr. Ken Whistler: I agree that is preferred option. Otherwise the grouping-related classification can become very messy.
- c. Mr. Michel Suignard: As to item b, it is not clear as to what the concerns are. I need more information.
- d. Mr. Masahiro Sekiguchi: I agree with editor. Japan will provide more details as to what the issue is and possible suggested solutions for the editor to act on.

Disposition:

Accepted in principle. Additional annotation will be added where multiple sourced/use ideographs are in one grouping.

JP.9 (General): Sub- clause 31.3 Code chart for CJK Ideographs Extension C and D

Japan points out that the code charts of 3rd edition are different from those in Amd. 5 to 2nd edition, for CJK Ext. C and D, and suggests reverting the changes.

Mr. Michel Suignard: Incorrect glyph for 2AAC9 in extension C is a known issue, and will be fixed. (See *relevant resolution M58.06 on page 30.*) Production tools have changed between Amd. 5 of 2nd edition and the 3rd edition. Also Taiwan had some changes after Amd. 5 in Ext. C. Otherwise they should be the same. I need to know what the issue with Extension D is.

Disposition:

Not accepted.

JP.10 (General): Sub- clause 31.3 Code chart for CJK Ideographs Extension B.

Japan requests updates reflecting the review report by IRG.

Mr. Michel Suignard: This is a big topic. I need the IRG to tell us what to do. Korea gave us a new font. (See *discussion under 9.1.5 on page 37.*)

Disposition:

Accepted.

JP.11 (Editorial): Sub-clause A.4.3, Last sentence.

Japan proposes correcting "See 0" to "See 23.1".

Disposition:

Accepted.

JP.12 (Editorial): Sub-clause A.5.5, First bullet.

Japan proposes correcting "See 023.1" to "See 23.1".

Disposition:

Accepted.

JP.13 (Editorial): Annex M, Glagolitic.

Japan requests inserting the missing word 'alphabet' in the title of ISO 6861, to read as 'Glagolitic alphabet coded ... '.

Disposition:

Accepted

JP.14 (Editorial): Annex M, Latin

Japan requests changing 'sets' to 'set' in the title of ISO 6937.

Disposition:

Accepted.

JP.15 (Editorial): Annex I.1.2, Row for "SURROUND FROM BELOW" in Table I.1

Japan requests correcting misaligned ideograph D2 in the IDS in column 5, versus the ideograph shown inside in column 6, suggesting using the correct ideograph glyph from the 2003 edition for column 6.

Disposition:

Accepted in principle. Editor will replace the ideograph in column 6 to 2067D instead of 51F7 to make the example equivalent to the example in 2003 edition.

JP.16 (General): Clause S.1.4.3, Chart of examples

(The same comment has been submitted as a part of the ballot comment against FDIS ISO/IEC 10646 2nd edition.)

Japan points to several examples of ideographs with wrong glyphs in Annex S, in changes to the examples; and suggests reverting to the 2003 edition examples.

Discussion:

- a. Mr. Michel Suignard: The intent of the updates to the examples was to move to fonts from the glyph images. But fragment ideographs in the examples that are not separately encoded pose challenges. We will revert back to images for those that do not have separate encoding. We need a volunteer to fix all the components that are not full ideographs, showing them with dotted rectangles. Even in the 2003 edition they were not consistent.
- b. Mr. Masahiro Sekiguchi: If it is difficult to do, it is not important for Japan, and we can keep whatever there is currently. It may not actually be a mistake. When the first draft of Annex S was written, the writing and finalizing of the examples was a difficult task. I prefer we keep the examples as they are.

Disposition:

Accepted in principle. Fix showing the fragments with dotted rectangles where possible.

JP.17 (Technical): Sub-clause S.1.6, G-Source

Japan proposes removing "GB 12052-90" and "GB 15564-1995" from the G-source list.

Discussion:

- a. Mr. Michel Suignard: I understand that it is different from 2nd edition. But we were doing a correction to fix the error in the 2nd edition.
- b. Mr. Masahiro Sekiguchi: We are not suggesting removing the sources for these ideographs. But these two standards were not around when the original unification was done.
- c. Mr. Michel Suignard: The G source you saw earlier, the wrong material was used in the early unification work. How do we document that?
- d. Mr. Masahiro Sekiguchi: These were on some 90 characters which were not subject to source code separation rule. Hence they do not belong in S.1.6.
- e. Mr. Michel Suignard: We accept that. But these are still in the list of Source References.

Disposition:

Accepted. See relevant resolution M58.06 on page 30.

Mr. Masahiro Sekiguchi: Based on the above dispositions, Japan reverses the vote to Acceptance.

8.8.1.6 Korea (ROK): Negative

T1 Annotations for U11xx and U31xx

Republic of Korea proposes annotations for several characters in the range 11xx in Annex 1 and in the range 31xx in Annex 2.

Discussion:

- a. Mr. Michel Suignard: We have discussed similar comments from earlier drafts from Korea. Korea had withdrawn earlier proposals. Now they have a slightly different version of such annotations regarding Jamos. I don't understand only a subset of such characters have been selected for annotations. I am not against the intent of the proposal. I would like to condense these and remove some of the repetitions. If there are similar comment between final and initial, I prefer these be not duplicated. Also note that annotations being editorial in nature, this comment from Korea should be 'Editorial' rather than 'Technical',
- b. Prof. Kyongsok Kim: In the previous meeting we were told to reduce the list to only those which could be considered confusables. The distinct ones are omitted.
- c. Mr. Peter Constable: There are two compatibility area Jamos also. Last time we had a discussion.
- d. Prof. Kyongsok Kim: Last time we withdrew our comments. We had left the existing annotation alone.
- e. Dr. Ken Whistler: Use of the word 'consonant' (for ex: 1109) in that context is unnecessarily verbose. This is a generic observation for all such. There are a few exceptions - the nasal consonant, for example. There is also a separate issue - for example, 1109 versus 110A. I do not recall the proposed annotation being the distinction between these two. Glottalized means something different - first one is Lenis, the second one is unaspirated, fricative etc. Fortis or tense is the terminologies used. Lenis and Fortis or Plain and Tense. (*Non-linguists can see http://en.wikipedia.org/wiki/Fortis_and_lenis.*)

- f. Prof. Kyongsok Kim: For the first issue, fricative does imply consonant. We could keep consonant for ordinary people to understand.
- g. Dr. Ken Whistler: The whole block is consonant with one exception.
- h. Mr. Michel Suignard: I will come up a revised list, based on some rules such as:
 - Remove 'consonant' from all except in 114C.
 - Replace glottalized by Fortis; Unaspirated Glottalized when it is with Fricative is reworded to Fortis; 11F9 - affricative fricative.

Disposition:

A revised list of annotations was reviewed by Prof. Kyongsok Kim and Korea (Republic of Korea) experts have accepted the proposed list (*see final disposition of comments in document N4098*).

Prof. Kyongsok Kim: Korea changes its ballot to Acceptance.

8.8.1.7 United Kingdom: Positive with comments

E.1. Sub-clause 16.5

The UK proposes replacing "2007-12-14" with "2010-11-14" for referencing the list of variation sequences.

Disposition:

Accepted. See also comment JP6 from Japan.

E.2. Sub-clause 23.1

The UK proposes correcting capitalization of G-source "ZhongHua ZiHai" to "Zhonghua Zihai"

Disposition:

Accepted.

E.3. Sub-clause 23.2, 23.4

The UK proposes rewordings to text for 2nd field and 3rd field describing the Radical-Stroke index to remove some confusion.

Disposition:

Accepted.

E.4. Clause 29

The UK proposes edits to sentence describing the TIP.

Disposition:

Accepted.

E.5. Clause 30

The UK proposes simpler clearer wording for sentence describing the SSP.

Disposition:

Accepted.

E.6. Sub-clause S.1.4.3

The UK requests reverting to examples in 2003 edition, the current ones being sub-optimal or incorrect.

Disposition:

Accepted in principle. *See disposition of comment JP16 from Japan on page 25.*

8.8.1.8 USA: Negative with comments

T.1. Latin Extended-D

The U.S. objects to renaming LATIN LETTER MIDDLE DOT from the original amendment to U+A78F LATIN LETTER GLOTTAL DOT, referring to document N3678 for rationale.

See also comments T4 from Germany and T2 from Ireland.

Discussion:

- a. Mr. Michel Suignard: If we keep this character A78F, it will be there for good. The U.S. has objected to this character many times before.
- b. Dr. Ken Whistler: As we said in our comment, we are still opposed to it because it is an unnecessary duplication of an already encoded character. Our rationale is in document N3678 in detail. The issues raised there are not adequately addressed. The renaming of the character was a way for WG 2 to address some of the U.S. objections. Creating an overly precise name is

something we do not do for others. We do object first because there are alternatives with existing characters. We also object to the name change as being worse than the original proposal.

- c. Mr. Michel Suignard: We would like to hear Ireland's position on this.
- d. Mr. Michael Everson: Neither of the two existing characters is used to indicate vowel or consonant lengths in IPA. Whereas the proposed character has a transliteration as the function. The evidence shown as to the use of the existing characters is not relevant to the needed character. A modifier letter has been proposed. This is an acknowledgement that the nature of the needed character as a letter. It is not appropriate to use 02D1 for characters which are not represented by a triangular shape; it is bad for the Central Asian Linguists who need both IPA and the transliteration. In our view 02D1 would be a mistake and would damage the standard to some extent. Those who use this as an IPA character would expect a triangular glyph. Some of the search engines do not distinguish middle dots from hyphen for example. The needed character has property of Lo. Attempt to shoehorn the needed character to one of the existing characters is not appropriate. If the name is an issue we would be perfectly happy to go back to Latin letter Middle Dot.
- e. Dr. Ken Whistler: In response, Middle Dot with a diacritic above is used as a glottal consonant. There are other examples.
- f. Mr. Michael Everson: We do not agree with the U.S. position.
- g. Mr. Karl Pentzlin: Germany has also contribution where there is a middle dot with the position being identified and for that case also we may need this.
- h. Dr. Ken Whistler: That argument is not the same as the case for the needed character. Andrew West's requirement is to have a character which will solve the search and word selection etc. but has the wrong shape. But we do have a middle dot which does not quite solve the search and word selection. Adding yet another Middle Dot is only going to create yet another confusion factor into the large number of Middle Dots in the standard.
- i. Mr. Michel Suignard: Can we have a note stating to the IPA character that this need not be always triangular.
- j. Mr. Michael Everson: That is the wrong thing to do for IPA users. Current 00B7 does not have the right set of property.
- k. Dr. Ken Whistler: 00B7 does not have right properties for Catalan also. But is used in Catalan, but is dealt with localizing. Any orthography which uses middle dot for length indicator etc. has the same problem. Without localization they cannot do proper searching, word selection etc. Logical distinction between these can be done, similar to many similar indistinguishable characters, by fixing the processing using localized behaviour. Changing the glyphs for triangular stuff for IPA is not the right idea. It is not right to say that we need a character.
- l. Mr. Michel Suignard: We are at an impasse. If we don't get a consensus on this issue the option available is to move the character out of the FCD to PDAM1 stage.

Disposition:

Accepted. Move character A78F with reverting name to LATIN LETTER MIDDLE DOT to PDAM 1.

Relevant Resolution:

M58.01 (Moving of characters from 3rd edition to Amendment 1): (Ireland – Abstained); WG2 accepts moving the following character out of the 3rd edition and including it in Amendment 1 to the 3rd edition of the standard:

- A78F LATIN LETTER MIDDLE DOT (with a changed name from LATIN LETTER GLOTTAL DOT).

T.2. Batak symbols

The U.S. requests the removal of 1BFA BATAK SYMBOL BINDU GODANG and 1BFB BATAK SYMBOL BINDU PINARJOLM, pointing out the evidence provided for these in document N3320 does not demonstrate these marks to be characters.

(See also comments T1 from Ireland and T2 from Germany.)

Discussion:

- a. Mr. Karl Pentzlin: These characters are part of the writing system, though they are large. They are identifiable as characters with a fixed position.
- b. Mr. Michael Everson: In many South Asian scripts they use the special marks to show that such characters are used to introduce the subject and the like. The examples we used were palm leaves. The author has used the type versions of these characters, with full-line length and half-line length examples. I have also responded that the length of the character is not relevant.

- c. Mr. Peter Constable: The examples show that these wrap around the page, all around etc.
- d. Mr. Michael Everson: I have gone to the authors and they have conceded that in print they can use the equivalents in short form. Potential users have admitted that they could use the small characters.
- e. Mr. Karl Pentzlin: I compare this to the large decorative first character etc. we use in Latin script.
- f. Dr. Ken Whistler: In Latin we do not encode the typographical elaboration. Whereas these two are named characters; these are not ornamental versions of something that exist in the script. If we can see instances of these as non-ornamental versions used somewhere in regular text elsewhere, then your argument about analogy to Latin script may be valid. In Latin script there are lots of ornamental versions of letters such as P. There are other characters in dingbats area, for compatibility. Those cannot be used as justification equivalents for Batak Symbols. Our assessment is that since there is no evidence of use of these as regular inline characters comparable to other punctuations in Batak, they should be treated as Graphical Elements.
- g. Mr. Karl Pentzlin: What would be the harm of allowing these for Batak? As far as I see, it is inline text as well as ornament.
- h. Mr. Mike Ksar: There is insufficient evidence of their use as in line characters. We do not encode ornaments.
- i. Mr. Peter Constable: There are different kinds of ornaments – line level, page level etc.
- j. Mr. Michael Everson: The user groups have come back to us and said that these don't have to be large.
- k. Dr. Ken Whistler: If in other typographies there is a tradition of using such as segment boundaries with such characters then there would be some case.
- l. Mr. Michel Suignard: The first one, the BINDU GODANG may have some inline usage.
- m. Dr. Ken Whistler: This is the case where an ornament is being shortened, like renaming the characters etc. to get the entity into the standard.
- n. Mr. Michael Everson: I have given the input from the user groups as feedback.
- o. Mr. Peter Constable: If we get more evidence of their need in typography practices then we can include it.
- p. Dr. Umamaheswaran: We should take these characters out from current FCD, and wait to get more evidence of their use as elements in plain text.
- q. Mr. Karl Pentzlin: One question would be – is this character required for writing the Batak text?
- r. Mr. Mike Ksar: Can the users typeset Batak without these characters being encoded? Will the rest of the text be type-settable without these?
- s. Mr. Michael Everson: We agree to take these characters out of the ballot.

Disposition:

Accepted. 1BFA and 1BFB will be taken out of the ballot, till further evidence of their need as characters in plain text comes forth.

Relevant Resolution:

M58.02 (Deleting 2 Batak characters from 3rd edition): WG2 accepts deleting the two Batak characters from the 3rd edition -- 1BFA BATAK SYMBOL BINDU GODANG, and 1BFB BATAK SYMBOL BINDU PINARJOLMA, pending more evidence for their usage in plain text.

T.3. Optical Character Recognition

The U.S. asks two formal name aliases are added as listed below:

- a. U+2448 OCR DASH; add the following formal alias: 2448 MICR ON US SYMBOL
- b. U+2449 OCR CUSTOMER ACCOUNT NUMBER; add the following formal alias: 2449 MICR DASH SYMBOL

These Magnetic Ink Character Recognition (MICR) symbols are used by banks on checks. The names of these characters were inadvertently mixed up in the 1993 edition of ISO/IEC 10646. Additional corroboration is provided on the following websites: <http://www.barcodesoft.com/e13bmapping.htm>, http://en.wikipedia.org/wiki/Magnetic_ink_character_recognition, <http://www.printerm.com/fonts2C.htm>, and <http://mindprod.com/jgloss/micr.html>

Disposition:

The proposed formal name aliases are accepted. *See relevant resolution M58.06 on page 30.*

T.4. NUSI.txt

The U.S. requests the removal of the following two named sequences, as requested in [N3897](#) by JTC 1/SC35, from ISO/IEC 9995-7, pending further requirement analysis:

U+21F3 U+20E2 KEYBOARD SYMBOL SCROLLING

U+2139 U+20E2 KEYBOARD SYMBOL HELP

Discussion:

- a. Mr. Karl Pentzlin: These symbols were from long time ago in 1990s. They were meant to be composed. These two characters have been documented to be always combined / composed. These should be OK.
- b. Mr. Michel Suignard: WG 2 did not close the discussion on all the keyboard symbols. The U.S. request is to delay the decision as to the sequence or single symbol etc. when all the keyboard symbols are looked together.

Disposition:

Accept removal of these two named sequences till the full set of keyboard symbols are studied together. See relevant resolution M58.06 on page 30.

E.1. CJK Fonts

The U.S. asks that the glyph errors in the font used for Extension B charts discovered in the course of IRG and national body review must be fixed before publication of the third edition.

See also comment JP10 from Japan.

Disposition:

Accepted. (See discussion under 9.1.5 on page 37.)

E.2. Arrows

The U.S. requests the glyph changes for 21E6 - 21F0 and 21F3 in the Arrows block be reverted. The new glyphs are out of sync with the set of arrows at 2B00-2B04 in the Miscellaneous Symbols and Arrows block. The proposed changes in document [N3897](#) should be reviewed as part of the full analysis of keyboard symbols from ISO/IEC 9995-7.

Disposition:

Accepted. Await further discussion on Keyboard Symbols. (SC 2 secretariat will be circulating the meeting resolutions to SC35 to take note of the above disposition.)

Dr. Ken Whistler: Based on the above dispositions, the U.S. changes its ballot to Acceptance.

Relevant Resolution:

M58.06 (Disposition of ballot comments of FCD 3rd edition): WG2 accepts the disposition of 3rd edition FCD ballot comments in document [N4098](#). The following significant changes are noted:

- marking 288 "Multilingual Latin Subset" to be a fixed collection;
- deleting 33 characters - 109C0 through 109F0 – Meroitic fractions and numbers, pending more satisfactory evidence for including them;
- fixing erroneous glyph for 2AAC9 (an ideograph in the CJK Extension C set);
- removing "GB 12052-90" and "GB 15564-1995" from the Sub-clause 'S.1.6, G-Source';
- addition of the following formal name aliases:
 - 2448 MICR ON US SYMBOL for 2448 OCR DASH, and,
 - 2449 MICR DASH SYMBOL for 2449 OCR CUSTOMER ACCOUNT NUMBER
- removal of the following Named UCS Sequence Identifiers:
 - <U+21F3, U+20E2> KEYBOARD SYMBOL SCROLLING, and,
 - <U+2139, U+20E2> KEYBOARD SYMBOL HELP
- moving of one character from 3rd edition to Amendment 1 per resolution M58.01 above;
- deleting the two Batak characters per resolution M58.02 above;
- correction of G-sources of two CJK unified ideographs per resolution M58.03 above;
- adding new source references of the form UCI-xxxxx for ideographs which have lost their original source references over the years, per resolution M58.05 above.

8.8.1.9 Progression of 3rd edition

Based on the disposition of comments in section 8.8.1 above (and captured in resolution M58.06), the 3rd edition progresses to FDIS stage.

Relevant Resolution:

M58.07 (Progression of 3rd edition):

- a. WG2 instructs its project editor to prepare and to forward the final text of the 3rd edition, which will include the changes arising from resolutions M58.06 above, along with the final disposition of comments to the SC 2 secretariat for an FDIS ballot.
- b. WG2 further instructs the IRG to assist the project editor with the review and finalization of the multiple-column charts for CJK Unified Ideographs Extension B.

The target revised starting date for FDIS is 2011-11.

8.8.2 Draft disposition of comments – PDAM 1 – 3rd edition

Input documents:

The following list consists of documents that are referenced in the discussion of various ballot comments in this section:

- [02n4169](#) Text of ISO/IEC 10646/PDAM-1; SC2 Secretariat; 2011-02-28
- [3589](#) Proposal for encoding the Mro script in the SMP of the UCS; Martin Hosken & Michael Everson; 2009-10-27
- [3958](#) Request to Rename ‘Coptic Numbers’ to ‘Coptic Epact Numerals’; SEI - Anshuman Pandey; 2010-11-01
- [3957](#) Proposal to Rename the Block Name for Sindhi; SEI - Anshuman Pandey; 2010-10-25
- [3979](#) Final Proposal to Encode the Khudawadi Script in ISO/IEC 10646; Anshuman Pandey; 2011-01-28
- [3990](#) Final Proposal to Encode Coptic Epact Numbers in ISO/IEC 10646; SEI- Anshuman Pandey; 2011-02-14
- [3991](#) Comments on Bassa Vah Comma; Charles Riley; 2011-02-14
- [4009](#) Result of Voting on SC 2 N 4169, ISO/IEC 10646/PDAM 1, Information technology -- Universal Coded Character Set (UCS) -- Amendment 1: Palmyrene, Old North Arabian, Sindhi, Mro, Bassa Vah, and other characters; SC2 Secretariat 02n4178; 2011-03-03
- [4024](#) Draft disposition of comments on SC2 N 4169 (PDAM text for Amendment 1 to ISO/IEC 10646 3rd edition); Project Editor, Michel Suignard; 2011-04-20
- Output documents:**
- [4099](#) Disposition of Comments Amd1; Project Editor – Michel Suignard; 2011-06-10
- [4010](#) Discussion of Mro Dandas; Martin Hosken; 2011-03-17
- [4107](#) Charts for AMD 1.2; Michel Suignard; 2011-06-10

Mr. Michel Suignard: Comments were received from Armenia (not a voting member), France, United Kingdom, and USA. As usual we go by alphabetical order of national bodies.

8.8.2.1 Armenia (comment not related to a vote)

Armenia requests moving Right-Facing and Left-Facing Armenian Eternity Signs from 1F53E and 1F53F to 058D and 058E in the Armenian block.

Mr. Michel Suignard: The request is to move the two characters to Armenian block. See also U.S. comment T.3. I propose accepting the moves to Armenian block. Question will be whether we need both these signs.

Disposition:

See further discussion and disposition under U.S. comment T. on page 32.

See relevant resolution **M58.08** item c on page 33.

8.8.2.2 France: Positive with comments

France approves the draft without reservation. However some parts of the proposed amendment cover fields for which no expertise was available.

Disposition:

Noted.

8.8.2.3 United Kingdom: Positive with comments

E.1. Clause F.5 Supertending format character

The U.K. proposes correcting 'superstend' to 'supertend'.

Disposition:

Accepted.

E.2. Clause F.5 Supertending format character

The U.K. proposes replacing the sentence:

“The scope of this character is the subsequent sequence of Coptic digits and number part of the Coptic Numbers block (102E0-102FF).”

with

“The scope of this character is the subsequent sequence of Coptic digits (102E1-102E9) and Coptic numbers (102EA-102FB).”

Mr. Michel Suignard: The final text will be affected by discussion on U.S. comment T.2, which requests inserting 'Epact' after the word 'Coptic' in the character names.

Disposition:

Accepted in principle.

See relevant resolution **M58.08** item d on page 33.

8.8.2.4 USA: Positive with comments

T.1. Sindhi (new block at 112B0-112FF)

The U.S. requests changing names of the block and all the characters in the block, replacing the word 'Sindhi' with 'Khudawadi' in the names. The rationale is detailed in document [N3957](#). More details are given in document [N3979](#) including adjusted positions for several combining marks in the chart and nameslist.

Discussion:

- a. Mr. Masahiro Sekiguchi: There was a recommendation for registering the script name for Khudawadi in [N3979](#).
- b. Dr. Ken Whistler: That recommendation is being handled by the Scripts Registration Authority. It is outside the scope of WG 2.

Disposition:

Accepted. Final chart and nameslist are in document SC 2 N4178 accompanying the ballot response.

The glyphs for combining marks will be verified to be correct.

See relevant resolution **M58.08** item e on page 33.

T.2. Coptic Numbers (new block 102E0-102FF)

The U.S. proposes renaming the block and all the characters in the block, replacing 'Coptic Numbers' with 'Coptic Epact Numbers' to distinguish these from the usual Coptic numbers. The rationale is provided in document [N3958](#).

Disposition:

Accepted. Change Coptic Numbers to Coptic Epact Numbers.

See relevant resolution **M58.08** item d on page 33.

T.3. Miscellaneous Pictographic Symbols

The U.S. requests the removal of 1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN and moving 15F3F LEFT-FACING ARMENIAN ETERNITY SIGN to 058E in the Armenian block. The Armenian standards ArmSCII-7, ArmSCII-8, and ArmSCII-8A contain only one character, which is represented by a left-facing glyph for the eternity sign. Adding two characters, where the national standards show only one, would create mapping problems.

Discussion:

- a. Mr. Michel Suignard: Armenia has only one. Ireland was requesting for both faces. By default I would like to accept both. It is up to the U.S. and Ireland to agree if we need both or one will be sufficient.
- b. Mr. Michael Everson: Armenia had requested for both to be moved.
- c. Mr. Michel Suignard: If we have to map to Armenian standard one of these characters will map. Does the U.S. insist on only one versus both?
- d. Mr. Peter Constable: We can have an annotation about the mapping.
- e. Mr. Michael Everson: The annotation can be '058E maps to the AST 34.005; 1997'.
- f. Dr. Ken Whistler: The annotation is to help with the right character gets mapped even if someone has a font with the character facing the other way.

Disposition:

Partially accepted. Both characters 1F53E and 15F3F will stay, but will be moved to 058E and 058F in the Armenian block.

See relevant resolution M58.08 item c on page 33.

T.4. Mro Dandas (Mro new block at 16A40-16A6F)

The U.S. requests the removal of 16A6E MRO DANDA and 16A6F MRO DOUBLE DANDA, unless clarification of their status and more evidence of use can be provided. The proposal (in document N3589) provides no examples of a single danda. The status of the Mro double danda as either a unitary character or a sequence of characters is unclear, given the use of a full stop also in the orthography.

Mr. Michel Suignard: The U.S. wants to remove both Dandas, till we get further clarification. Document N4010 provides further evidence. If the evidence provided therein is adequate we can keep these characters.

Disposition:

Accepted in principle. The characters are kept.

T.5. Bassa Vah (new block at 16AD0-16AFF)

The U.S. requests the removal of 16AF5 BASSA VAH COMMA. The character only appears in one Bassa Vah document, is a typographic error. Document N3991 provides the rationale.

Discussion:

- a. Mr. Michael Everson: If we remove it, do we want to move the following character up? (Yes).

Disposition:

Accepted deletion of BASSA VAH COMMA and moving 16AF6 BASSA VAH FULLSTOP moves up to 16AF5.

See relevant resolution M58.08 item b on page 33.

T.6. Arabic (0605 ARABIC COPTIC NUMBER MARK)

The U.S. requests 0605 ARABIC COPTIC NUMBER MARK be renamed ARABIC NUMBER MARK ABOVE, to avoid having two script names in the name, recognizing its use is common between both Arabic and Coptic Epact usage. An Arabic example from 'J. Lennart Berggren, Episodes in the Mathematics of Medieval Islam, Springer-Verlag, New York, 1986, p. 37' is included.

Disposition:

Accepted the requested renaming.

See item a in the relevant resolution M58.08 below.

Relevant Resolution:

M58.08 (Disposition of PDAM1 ballot comments): WG2 accepts the disposition of PDAM1 ballot comments in document N4099. The following significant changes are noted:

- a. renaming 0605 ARABIC COPTIC NUMBER MARK to ARABIC NUMBER MARK ABOVE;
- b. deletion of 16AF5 BASSA VAH COMMA and moving 16AF6 BASSA VAH FULL STOP up by one position to 16AF5;
- c. moving 1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN to 058D, and 15F3F LEFT-FACING ARMENIAN ETERNITY SIGN to 058E in the Armenian block, with an annotation for 058E that it maps to AST 34.005: 1997;
- d. changing the block name and the names of all the characters in the block - 'Coptic Numbers' (102E0-102FF), by inserting the word 'Epact' after the word 'Coptic' in the names;
- e. changing the block name and the names of all the character in the 'Sindhi' block (112B0-112FF), by replacing 'Sindhi' with 'Khudawadi' in their names.

8.8.2.5 Progression of Amd. 1

Mr. Michel Suignard: Because we have several newer proposals, we should consider adding the ones we accept at this meeting to PDAM1 and issue PDAM1.2. The new ISO process asks for maximum of two amendments for each edition. See relevant resolution M58.23 below.

Relevant Resolution:

M58.23 (Progression of PDAM 1 to the 3rd edition): WG2 instructs its project editor to create the text of for Amendment 1 to the 3rd edition of ISO/IEC 10646, incorporating the disposition of PDAM1 ballot comments per resolution M58.08 above, character moved from 3rd edition per resolution M58.01 above, and text changes and characters accepted for encoding in resolutions M58.09 to M58.22 above, and send it to the SC 2 secretariat for a second PDAM ballot. The consolidated charts are in document N4107. The revised target starting dates are: PDAM 1.2 2011-07, DAM 2012-03 and FDAM 2012-11.

9 IRG status and reports

9.1 Summary of IRG activities

Input documents:

- [4021](#) IRG 36 Summary; IRG Rapporteur, Lu Qin; 2011-04-19
- [4020](#) IRG 36 Resolutions; IRG Rapporteur, Lu Qin; 2011-04-15

Dr. Lu Qin presented the summary report of IRG in document N[4021](#).

9.1.1 Item 1: Future meetings

Dr. Lu Qin: We need endorsement for meetings IRG 38 and IRG 39.

IRG #38 is already approved – in Gyeongju, Korea, 2012-06-18/22

IRG#39 is scheduled for Hong Kong, 2012-11-12/16

(See relevant resolution **M58.32** on page 61.)

9.1.2 Item 2: Proposal for IVD

Dr. Lu Qin: We understand that IVD is for private registration, whereas UTC is a standardization organization. When UTC registers something, it will be considered as a de facto encoding. IRG requests that UTC not to proceed till the concern is addressed. (See discussion under 9.3 on page 38.)

9.1.3 Item 3: Ext. B multiple-column charts

Dr. Lu Qin: IRG members are supposed to provide input by 2011-07-01 to enable editor to finalize the charts by 2011-07-08. These charts will go through a full review by IRG. The results are to be presented at IRG 37 in Mountain View in November 2011.

9.1.4 Item 4: FDIS 3rd edition balloting

Dr. Lu Qin: Because of item 3 above, IRG requests extending balloting of FDIS of 3rd edition till November 2011.

Discussion:

- a. Mr. Michel Suignard: We may have to issue a DIS if we delay it till November. I will check with the secretariat on the ITTF rules related to this. We may want to consider going ahead with at least a preliminary set of Ext. B charts after this meeting; otherwise, we may have to issue another technical ballot as a DIS. Publishing of FDIS will have to be done in July for the old JTC 1 rules to be applicable.
- b. Mr. Mike Ksar: It is a big concern.
- c. Dr. Lu Qin: IRG members have a concern about the accuracy of Ext. B charts. We understand the concern about the delay in 3rd edition due to ITTF procedures. We already agreed that the review process will be to check for the consistency in the charts.
- d. Mr. Michel Suignard: You could consider any revisions as editorial on the FDIS ballot. We can request ITTF to extend the ballot end period, but it has to start in July time frame.
- e. Mr. Mike Ksar: The target for FDIS start is end of June. The charts would be available by then.
- f. Dr. Lu Qin: Our current schedule is to get reviews done by end of June. The review will start as soon as the charts are made available to us. Consolidated IRG comments will come in November. Individual members of IRG can provide comments to the editor earlier.
- g. Mr. Michel Suignard: I would like to have an idea as to the scope of changes to be made.
- h. Mr. Peter Constable: I was going to raise the same issue as the editor. Delay in FDIS balloting of 3rd edition is a serious risk – it will be of serious concern to the UTC. Another technical ballot leaves the entire repertoire of 3rd edition open to change. WG 2 can have a consensus that the review of the charts be done as part of FDIS ballot.
- i. Mr. Mike Ksar: I think the editor is suggesting the same.

- j. Mr. Masahiro Sekiguchi: I do not want to support the change in the charts after the FDIS ballot. We tried to do that in 2nd edition and we failed. Our concern was on the CJK unified ideograph. In the 2nd edition there are a lot of mistakes in the main block, in Ext. B etc.
- k. Mr. Michel Suignard: Are you talking about the Annex S in 2nd edition? No one complained about the CJK charts. The 2nd edition FDIS ballot was delayed to get the multiple-column charts of BMP reviewed by IRG. We went with single-column chart for Ext. B. There was one character in Ext. C in error. I do not accept that we failed.
- l. Mr. Masahiro Sekiguchi: It is different from my understanding. I don't have the exact code points now, or specific examples. I could be mistaken.
- m. Mr. Mike Ksar: It is serious for WG 2 to say that we failed in proper review of WG 2. If it is only a single code point that is in error, you should not be making a claim that we failed.
- n. Mr. Masahiro Sekiguchi: My expression may not be appropriate. I remember we had long discussion in Japan about mistakes in the 2nd edition. I could be wrong about if those mistakes have not been fixed.
- o. Mr. Michel Suignard: Japan did make a large number of comments related to Ext. B. There were so many concerns that we decided to go back to Ext. B single-column chart, to give more time to IRG for review. At the same time JAPAN and IRG reviewed the other CJK multiple-column charts and are in 2nd edition. These are being carried forward to 3rd edition. I think Japanese should not have any concerns about the rest of the charts.
- p. Mr. Masahiro Sekiguchi: I need to check.
- q. Mr. Mike Ksar: I want to understand your concern about starting the 3rd edition ballot in July.
- r. Mr. Masahiro Sekiguchi: Assuming that my concerns about 2nd edition are still valid, the feedback may be that Ext. B will end up being revised considerably before the publication. This may not give an opportunity for experts to check the final charts.
- s. Dr. Lu Qin: We have three files; unification related issues containing about 90 items; mapping could be wrong in these. Second item is the glyph design issue. Some of the national bodies have changed the glyph shape. Sometimes these are minor but may result in unintentional consequences – about 40 such items. The third file contains items with wrong glyphs (roughly 90 items).
- t. Mr. Masahiro Sekiguchi: Assuming that some of the glyphs are wrong, we need to get the IRG members to get them corrected. The national body has to go to the font vendor and it is a complicated process. The updated font when it is available, sometimes we have found the glyphs were worse than before. For example, in Korea, some new errors were found in new fonts. I want to see the new code charts with the newly submitted fonts be reviewed before publication. It is better if it is reviewed before issuing a ballot.
- u. Dr. Ken Whistler: In case the IRG finds that the glyphs are wrong and has to go back to the old glyphs, the project editor has the mechanism to revert to the previous glyph set before printing.
- v. Dr. Lu Qin: Remember that Ext. B was a single-column chart earlier. We do not have the means to the so called revert to previous glyph. The editor has individual fonts for the multiple-column charts for Ext. B. The reverting to the old glyph is possible for other CJK blocks; but not for Ext. B. The national bodies may have submitted the fonts for Ext. B during the unification process.
- w. Mr. Mike Ksar: We seem to be in a never ending cycle for the fonts for the 3rd edition. If the penalty for this is not to progress 3rd edition, it will be a heavy price to pay. We should to strive to do our best now... but we cannot delay till we achieve perfection.
- x. Mr. Masahiro Sekiguchi: I believe we can wait for the proper review.
- y. Mr. Michel Suignard: We are really preventing other members who may need to use these charts from doing it earlier. We did a good job of reviews etc. in other CJK blocks. Ext. B multiple-column charts were not exposed earlier by reverting to single column. We are not doing a service to the user community by delaying the process. I believe we will do the best by the early issuing of FDIS ballot.
- z. Mr. Mike Ksar: We have failed in that we have not set a realistic schedule both in IRG and WG 2 to do a proper review of Ext. B multiple-column charts. My concern is that even November 2011 date is not firm.

- aa. Dr. Lu Qin: We have to remember that we are dealing with some 40000 characters. The solution would be that – I agree with Mr. Michel Suignard’s suggestion – that we should be able to accommodate any errors detected during the balloting process. Our request is to extend the closing date to beyond IRG review end date.
- bb. Mr. Michel Suignard: Strictly speaking from the ITTF point of view the charts are considered to be editorial. As an editor, you can count on me to get any corrections done before the final publication. The publication date is 2012.
- cc. Mr. Mike Ksar: My wording failing is related to our inability to come up with better estimates for the reviewing of the charts. I appreciate all the work being done by IRG.
- dd. Mr. Masahiro Sekiguchi: A delay of another year is OK with Japan.
- ee. Dr. Lu Qin: All the IRG members are of the opinion that we should reduce the delay.
- ff. Mr. Peter Constable: That is not what I am hearing from Mr. Masahiro Sekiguchi. I want to remind everyone that the 3rd edition has a number of non-CJK characters as well that are important for users – such as the Indian Rupee sign. Delaying of 3rd edition for more than a year etc. is a serious problem.
- gg. Mr. Masahiro Sekiguchi: It is a good point that 3rd edition is not just about Ext. B. What would happen if we suggest that Ext. B be reverted to single-column chart, which will allow us to progress the non CJK parts of 3rd edition and get a good review done on Ext. B multiple-column charts.
- hh. Mr. Michel Suignard: I would like to hear opinions from other users of Ext. B also. I am concerned that Ext. B review will get further delayed.
- ii. Mr. Michael Everson: Are you suggesting that it is not mature?
- jj. Mr. Mike Ksar: Lu and MS seem to be in agreement that we can go ahead with a July starting of the 3rd edition of FDIS, and any results of the IRG review brought out during the FDIS balloting period, will be reflected in the final publication of 3rd edition. If any further errors are discovered, it can be done in a future edition.
- kk. Mr. Masahiro Sekiguchi: Ext. B has already been encoded about 10 years. The multiple-column chart is an improvement of the charts of Ext. B. I don’t see any urgency for the multiple-column rendering of Ext. B. It is not a change in the definition of Ext. B.
- ll. Mr. Michel Suignard: Ext. B as is in the standard is totally not useable by vendors implementing the standard. The vendor has to present the corresponding source glyph for Ext. B, depending on the marketing requirement. The glyphs from the single-column chart of Ext. B in the standard are not useful for the implementers. Multiple-column Ext. B chart is one of the important missing aspect of ISO/IEC 10646. It is perfectly wrong to state that single-column Ext. B chart is adequate.
- mm. Mr. Mike Ksar: We are trying to improve the useable information for Ext. B in the standard. If we find any errors in the charts after IRG review, we can publish the corrections in the next amendment or corrigendum etc.
- nn. Dr. Lu Qin: IRG generally recognize the importance of the multiple-column charts for Ext. B. Going through the process of getting multiple-column charts we see that the vendors support the constituencies is improving and will have a positive impact.
- oo. Mr. Masahiro Sekiguchi: What is the conclusion?
- pp. Mr. Mike Ksar: We will issue the FDIS in July for balloting. We will receive the feedback from members of IRG as well as other national bodies. Any correction to the charts will be done before final publication.
- qq. Mr. Michel Suignard: We will ask the ITTF for closing date to be beyond the final IRG review date. I have quite a bit of leeway in handling the publication schedule within reasonable limits. Small set of changes can be dealt with before the publication.
- rr. Dr. Umamaheswaran: We could request the start date be as late as possible after checking with SC 2 secretariat; and request the end date be extended till end of December.
- ss. Dr. Lu Qin: The consolidated comments from IRG members should be available by 14 October, to give members time to prepare before November IRG meeting.

The start and end dates for FDIS 3rd edition (after checking with SC 2 secretary) accommodates the IRG reviews above. See relevant resolution **M58.07** on page 31.

9.1.5 Item 5: Ext. C review

Dr. Lu Qin: IRG has reviewed and recommends:

Two glyph changes for T source 2AF5C and 2B01B.

Three T sources to be removed for Ext. C - 2AD12, 2B089 and 2B08F

Three Ext. C characters become orphans - 2AD12, 2B089 and 2B08F; the source references to be updated accordingly.

9.1.6 Item 6: Ext. E

Dr. Lu Qin: This set is still under review. The action item to remove a single character from Ext. E is still in progress.

9.1.7 Items 7, 8 and 9: Old Hanzi – work, principles and references, Architecture

Dr. Lu Qin: This work item is still in progress within the Old Hanzi sub group. The subgroup is working on principles, references, and architecture.

9.1.8 Items 10 and 11.

Dr. Lu Qin: IRG principles and procedures has been updated (minor revision); and the Unifiable Component Variations and Non-Unifiable components have been updated as well.

Mr. Mike Ksar: Thank you Dr. Lu Qin and the IRG for your hard work.

9.2 Comments on N4021 – IVD Registration

Input documents:

[4075](#) Comments on 4021 – IVD registration; UK NB; 2011-05-22

[4084](#) IRG and IVD; Unicode Consortium – Peter Constable, Richard Cook, John Jenkins, Ken Lunde, Ken Whistler; 2011-05-26

Dr. Lu Qin: In IRG we had a discussion about IVD Registration being done by Unicode. Since IVD is a private registration, by having Unicode registering it, that becomes a standardized database. That is the concern from IRG. A set of 21 simplified CJK characters are being proposed to be registered as IVD. UK's concern is that this will be duplicate encoding of these characters in a parallel track for standardization.

Discussion:

- a. Mr. Peter Constable: To clarify about the status of IVD registration referenced here, there is no IVD registration in the process of review. The proposal to IRG is started as a working draft. Part of UK's comments is after looking at the details of some of the sequences in that proposal. Another concern raised by UK is that we may be bypassing the regular standardization process and providing a backdoor method for standardization. I don't have a particular response to UK's concern. As to IRG concern, IVD is part of the Unicode standard. The variation sequences that get registered are not standard in the sense that there is a single way of representing a variation to be used by every implementation. UTS 37 clearly states that. The status of a registration in the IVD is the same for each. The standardized variants are part of the Unicode standard, which are different from what goes into the registry. Their status is different. If it is felt that there is concern about the status of registration in an IVD we could add text in UTS 37 to clarify to alleviate any confusion about the status. I have provided some information in the UTC liaison report.
- b. Dr. Lu Qin: IRG did not look at the specific sequences. The U.K. input shows that there are duplicate encodings (see document [N4075](#)). The UTC has to address the concern about back door aspect, and the concern that the character may not get regular encoding through regular IRG process. The document submitted to IRG by the UTC is to explore whether IVS-s can be used to encode characters that are considered to be glyph variants etc.
- c. Mr. Peter Constable: Some of the items in document [N4075](#) are to be addressed by IRG.

Action items:

- IRG is to address concerns in document [N4075](#), on potential duplication and on possible use of IVSs as method to encode z-variants.
- Mr. Peter Constable is to arrange the UTS37 to be entered in the WG 2 register, and SC 2 national bodies to be invited to comment.

9.3 IRG and IVD

Input document:

[4084](#) IRG and IVD; Unicode Consortium – Peter Constable, Richard Cook, John Jenkins, Ken Lunde, Ken Whistler; 2011-05-26

Mr. Peter Constable: In the process of evaluating letter forms for unification etc. several items disappear. In those cases the candidate letter forms that get unified, could be retained as IVSs. The suggestion in document [N4804](#) to IRG is to start using the IVD to prepare registrations for these letter forms that could be variants of the unified encoded ideograph.

Discussion:

- a. Dr. Ken Whistler: At this time we are suggesting IRG explore the possibility of using IVDs to preserve the information related to candidates that have been unified.
- b. Mr. Masahiro Sekiguchi: We were confused in Japan as to what is being asked. We know that the unification process considers unifiable ideographs. In most applications, users etc. there is no concern about the different shapes associated with a unified ideograph. In some rare cases, there is a need to distinguish the different letter form, in which case we have the IVS and IVD mechanisms in place. In document [N4084](#), the suggestion seems to be all the variants proposed to the IRG are to have IVS-s. If one wants only to track that would be helpful primarily for IRG, and someone else who is interested in the background information about the unification. However, it is not within the scope of purpose of IVSs. Once we issue IVS then that is available to use in plain text as an encoded sequence. I want to know the clarification of why the use of IVSs is proposed. If it for tracking purposes we don't need it. Is there any another intent behind it.
- c. Mr. Peter Constable: The Unicode rep to IRG can explain the purpose when IRG looks at this proposal in IRG.
- d. Dr. Lu Qin: I have similar concerns. When Adobe registers something there is an implementation behind it. However we don't understand why IRG should propose IVSs for all unified letter forms.
- e. Mr. Masahiro Sekiguchi: I don't have objection to IRG investigating that. I would like to hear from the proposers also.
- f. Dr. Ken Whistler: None of the experts here can respond to it. That is why we are suggesting that the IRG discusses this.
- g. Prof. Kyongsok Kim: Why should IRG be instructed by WG 2? Any IRG member could request directly to IRG.
- h. Dr. Lu Qin: If this document is submitted to IRG, we will deal with it in IRG.

Action item:

Document [N4084](#) will be revised (by Mr. Peter Constable et al) to remove the recommendation that WG 2 take a resolution to instruct the IRG etc. The revised document will be given an IRG document number and will be taken up.

10 Script contributions related to ballots

10.1 Third Edition

10.1.1 R.O.Korea's Response on Idu chars

Input document:

[4008](#) R.O.Korea's Response to Japan's question RE: Idu chars; NB ROK; 2011-03-04

Mr. Michel Suignard: At last meeting we moved source information from imaginary G1 (added during an IRG meeting) which we found to be part of different standards - GB12052 1989 and xxxx. Korea looked at the Idu characters from standard. We did move the sources from G1 to GK in 2nd edition. That change was OK except for two characters 5655 and 58ED. The GK sources for 5655 and 58ED are incorrect and should be removed. GB12052-1989 6063 and GB12052-6841 will be removed as source references from 5655 and 58ED. The corresponding GK characters are not in UCS (they were G1-7D69 and G1-7D47). There are two characters from the main CJK block that have no more G sources. They will have the K sources, so they are not orphans. Do we have a KangXi sources for these two?

Discussion:

- a. Mr. Chen Zhuang: Yes.
- b. Mr. Michel Suignard: We could change the GX sources to corresponding KangXi sources. If China can provide the Kang-Xi indexes I can include them in the 3rd edition.
- c. Mr. Masahiro Sekiguchi: I have a feeling that for China, the glyph for G source is more important. The G column glyph will disappear.
- d. Mr. Michel Suignard: If we can find another G source (for example, Kang-Xi index) we can retain the Glyph. Otherwise they will disappear. We found one Kang-Xi index for 5655. We are to find the Kang-Xi index for 58ED (await input from Cheng).
- e. As to what to do with the GB characters that will disappear as source references, it is up to China to propose it as part of Ext. E, for example.
- f. Prof. Kyongsok Kim: It is hard to find evidence that the two GB characters are in use or not.
- g. Mr. Masahiro Sekiguchi: At this time no one wants to add these two characters.

Disposition:

Fix G source for 5655 with KangXi index; await KangXi index for 58ED in the CJK main block.

Relevant Resolution:

M58.03 (Correction of G-sources in CJK main block): WG2 accepts the following corrections to G-sources in the CJK Unified Ideographs main block:

- replace the G source reference for 5655 in the CJK main block with HYD 10685.050
- remove the G source reference for 58ED in the CJK main block

10.1.2 Request for U-source in 3rd edition

Input document:

[4021](#) IRG 36 Summary; IRG Rapporteur, Lu Qin; 2011-04-19

[4058](#) Comment on ISO/IEC 10646:2012 3rd edition – Request for U-Source; USNB; 2011-05-13

Output document:

[4111](#) Sources for orphaned CJK ideographs; USNB; 2011-06-06

Mr. Michel Suignard: We have about 10 characters with no sources over a period of time. The U.S. national body would like to have a little better documentation of the history of such orphaned characters. We could assign these U sources to keep track of the history of these. There are already some Ext. C characters which will be losing their source references (see document [N4021](#)). These can have U source values of the form UTC-xxxx. These UTC-xxxx values are documented in UTR #45 where the history of these characters is preserved.

Discussion:

- a. Mr. Masahiro Sekiguchi: I don't understand need for at least one normative source for each ideograph. Neither do I understand how the new U source will facilitate that? Originally the source information was to establish the identity of the character by referring to the national character. It may end up in a circular reference.
- b. Mr. Michel Suignard: The fact that we have a 0000 for source reference indicates that it is a mistake to encode it. We thought we had a valid character, but it was a mistake.
- c. Mr. Masahiro Sekiguchi: Giving it a UTC-xxxx may hide the fact that it is a mistake. Do you want to hide it?
- d. Mr. Michel Suignard: No the intent is to capture the history of the character, and how it came into the standard. It is not to hide it. A special range of UTC-xxxx would indicate that they are not regular ideographs with a valid source.
- e. Mr. Masahiro Sekiguchi: I agree that historical information is good to capture. Why is it important to have unique source references for each ideograph?
- f. Mr. Michel Suignard: When you make virtual entries it is good to have distinction between two erroneous characters.
- g. Dr. Ken Whistler: It is a dangling reference; all others resolve to a valid source reference. The current 00000 etc. result in a dead end. It is an indefinite collection of ideographs with identical labels. The information on these was based on different sources. By having distinct pointers we can still have referenced background information about each one of these.

- h. Prof. Kyongsok Kim: I generally agree with the characters - to avoid confusion for the users. If there is no source reference we say so. Even with the +00000 we can still have background information explaining the history etc. I think it is better to have the current +00000 as source reference.
- i. Dr. Lu Qin: In IRG we had a discussion on this. We did not have a position on this. WG 2 can go either way. If UTC is wishing to act as a 'garbage collector' it is OK with IRG. UTC is also a legitimate source reference provider. There could be confusion.
- j. Mr. Michel Suignard: These characters do exist, though they have lost the source reference. We are not changing anything other than changing the source information. For all processing of source references it is much better to have distinct source references than a dangling 000000. A range of values will identify that these ideographs have no longer valid source references.
- k. Prof. Kyongsok Kim: UTC-xxxxxx being used for both valid UTC sources and invalid UTC source can be confusing.
- l. Dr. Ken Whistler: I agree that is more work for one. If the UTR can be modified to have two separate labels - one set for valid sources and another one to distinguish it as orphans will also work. It will resolve part of the concerns.
- m. Mr. Masahiro Sekiguchi: Discussion on 'legitimate' referencing itself is OK but does not help in identifying the character. UTR #45 can be the repository of historic information. But I am not comfortable is that the basic assumption is that we need 'at least one unique source reference'. The document [N4058](#) does not explain that. I am still waiting to understand why one wants unique source reference versus use of the code point itself to identify that character.
- n. Mr. Michel Suignard: It is fairly common thing that in Unihan database that each ideograph has a unique source reference. Because of the special values, we have to add a special logic to distinguish these from others.
- o. Mr. Masahiro Sekiguchi: If Unihan variation is the only rationale I do not want to add to a national standard something new.
- p. Mr. Peter Constable: Clause 23.1 has definitions for source reference, which calls for a source reference for each ideograph. It does not say it is unique or not.
- q. Dr. Umamaheswaran: It is like announcing that 'I am the first character which has lost identity', '... second character ... etc.
- r. Mr. Masahiro Sekiguchi: I understand now that it is a standard requirement to have a source.
- s. Dr. Umamaheswaran: What about the timing synch between UTR #45 and FDIS?
- t. Mr. Peter Constable: The UTC is not going to meet till August this year.
- u. Dr. Ken Whistler: It is feasible for Unicode consortium to be able to update the UTR #45. The final approval of it will be by UTC. The request is to include the proposed UCI in the FDIS.

Disposition:

An updated document [N4111](#) will reflect the discussion at the meeting; includes the rationale about requirement in clause 23.1. New UCI-xxxxx references will be incorporated in the 3rd edition. See relevant resolution **M58.05** below.

Action item:

Unicode Liaison and Project Editor to work together to get the needed updates to UTR #45 to be done in time for enabling the FDIS ballot to start without undue delay.

Relevant Resolution:

M58.05 (New source identifiers for orphaned CJK ideographs): WG2 accepts the proposal for new source references of the form UCI-xxxxx, per document [N4111](#), and requests the Unicode Consortium to update Unicode Technical Report #45, assigning UCI source labels for all the ideographs which have no other source reference in ISO/IEC 10646, coordinating with the project editor. Three CJK Unified Ideograph Extension C characters --- 2AD12, 2B089, and 2B08F (per item 5 in document [N4021](#) from IRG) are also to be given UCI source labels. The project editor is instructed to add appropriate text to the standard.

10.2 PDAM 1

10.2.1 Wingdings/Webdings additions

Input documents:

[4022](#) Proposal to add Wingdings and Webdings Symbols; Unicode (authored by Michel Suignard); 2011-05-21

[4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Output document:

[4115](#) Revised to add windings and webdings; Unicode Consortium; 2011-06-10

Mr. Michel Suignard: Document N[4022](#) was the basis for the discussion among the ad hoc group members. An initial filtering was done by conversation between me and Mr. Michael Everson. The ad hoc group discussed the results and arrived at a consensus for Wingdings 1, 2 and 3. Some characters were unified, refined etc. There are several name changes from the original proposal. For the Webdings set, being pictographs, we could not get an agreement on processing some of them ... they will be for further study. These will be discussed offline. Some unification was done with Webdings. A smaller set of Webdings were accepted by the ad hoc. There will be holes in the charts indicating they are for further study. There is some controversy on the shapes of some of these Webdings, whether they can be harmonized with emoji set etc. Approximately 150 Webdings were left out from about 600 proposed initially. Document N[4115](#) reflects the ad hoc consensus. The recommendation is to include the agreed upon repertoire. Some characters are proposed in new blocks, and others are spread across several blocks.

Dr. Ken Whistler: I am in full agreement with what the editor has done with these.

Disposition:

Accept the ad hoc report, for inclusion in next amendment. See relevant resolution **M58.21** below and **M58.04** on page 43.

Relevant Resolution:

M58.21 (Wingdings and Webdings): WG2 accepts the recommendation in the ad hoc report on Wingdings and Webdings (document N[4115](#)) and accepts to encode in the standard **506** symbols in 10 blocks as follows:

- 7 characters in the Miscellaneous Technical block
- 1 character in the Dingbats block
- 140 characters in the Miscellaneous Symbols and Arrows block
- 1 character in the Supplemental Punctuation block
- 2 characters in the Enclosed Alphanumeric Supplement block
- 105 characters in the Miscellaneous Symbols and Pictographs block
- Create a new block named Ornament Symbols in the range 1F650-1F67F and populate it with 43 characters
- 1 character in the Transport and Map Symbols block
- Create a new block named Geometric Shapes Extended in the range 1F780-1F7FF, and populate it with 84 characters, and
- Create a new block named Supplemental Arrows-C in the range 1F800-1F8FF and populate it with 122 characters

with the glyphs, character names and their code positions as shown on pages 53 through 83 in document N[4115](#).

11 Script contributions not related to ballots

11.1 Carried forward from previous meeting:

11.1.1 Tirhuta Script (was Maithili)

Input documents:

[3765](#) Towards an Encoding for the Maithili Script in ISO/IEC 10646; Anshuman Pandey; 2009-09-30

[4035](#) Proposal to Encode the Tirhuta Script in ISO/IEC 10646; Anshuman Pandey; 2011-05-05

Dr. Deborah Anderson: Document N[4035](#) replaces N[3765](#). The script was called Maithili in the previous proposal. The preferred name for the script is Tirhuta to avoid conflict with language name Maithili which can be written in multiple scripts. It resembles Bengali but differs in behaviour in several conjunct combinations etc. It was used in the 20th century. The author has worked with the user community. 82 characters are proposed.

Discussion:

- a. Mr. Peter Constable: The UTC has reviewed this and we agree that it is mature for encoding. The list of decomposition mappings is not in the nameslist, but it is in the character properties list.

Disposition:

Accept the proposal for a future amendment. See relevant resolution **M58.10** below.

Relevant Resolution:

M58.10 (Tirhuta script): WG2 accepts to create a new block named Tirhuta in the range 11480 to 114DF, and populate it with **82** characters in code positions 11480 to 114C7 and 114D0 to 114D9, with their glyphs and character names as shown on pages 14 and 15 in document [N4035](#). The repertoire includes some combining characters and some two part vowels needing decomposition specification.

11.1.2 Hentaigana characters**Input documents:**

- [3698](#) A proposal for encoding the hentaigana characters; Jeroen Ruigrok van der Werven; 2009-02-15
[4091](#) Notes on Hentaigana – related to N3698; Japan NB; 2011-06-01

Mr. Masahiro Sekiguchi: At this point we have no strong requirement. If Japanese government takes the direction to encode them, then we will bring it forward. Current status is to use regular Hiragana in place of Hentaigana.

11.1.3 Lithuanian dialectology**Input documents:**

- [3914](#) Proposal to add characters used in Lithuanian dialectology to the UCS; Vilnius University: Faculty of Mathematics and Informatics, in cooperation with the Faculty of Philology of VU and the Institute of Lithuanian Language; Authors: Vladas Tumasonis; Karl Pentzlin; 2010-09-24
[4057](#) Further Proposed Additions to ISO/IEC 10646; USNB; 2011-05-13
[4062](#) Comments on N3914 - Characters for Lithuanian Dialectology; USNB – Peter Constable & Ken Whistler; 2011-05-11
[4070](#) Second revised proposal to add characters used in Lithuanian dialectology to the UCS Source: (replaces N3914); Vilnius University: Faculty of Mathematics and Informatics, in cooperation with the Faculty of Philology of VU and the Institute of Lithuanian Language Authors: Vladas Tumasonis; Karl Pentzlin; 2011-05-24
[4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Output document:

- [4116](#) Ad hoc on Lithuanian; Karl Pentzlin; 2011-06-09

Mr. Karl Pentzlin: There was a German request to handle some of the errors. Documents [N4070](#) and [N4085](#) should be reviewed. There are two characters that have not been agreed upon by the Unicode Consortium.

Dr. Ken Whistler: Nothing has been agreed upon from this contribution.

An ad hoc group led by Mr. Karl Pentzlin met to discuss the various contributions.

Mr. Karl Pentzlin: The ad hoc met and arrived at a consensus that we will proceed with only those characters that have been accepted by the UTC. There were issues about other characters, naming of arrow characters etc. See adhoc report in document [N4116](#).

Dr. Ken Whistler: A set of 14 characters is agreed upon.

Disposition:

Adopt the ad hoc report in document [N4116](#). Code points, character names are in the ad hoc report. The final charts will have the agreed upon glyphs. Spread across four different blocks. See relevant resolution **M58.17** below.

Relevant Resolution:

M58.17 (Lithuanian dialectology characters): WG2 accepts the recommendation in the ad hoc report on Lithuanian dialectology (document [N4116](#)) and accepts to encode in the standard **14** characters in various blocks as follows:

- a. 8 characters in the Miscellaneous Symbols and Arrows block:
 - 2B4E SHORT NORTH EAST ARROW
 - 2B4F SHORT SOUTH EAST ARROW
 - 2B5A NORTH EAST ARROW WITH HOOKED HEAD
 - 2B5B SOUTH EAST ARROW WITH HOOKED TAIL
 - 2B5C NORTH EAST ARROW WITH HORIZONTAL TAIL
 - 2B5D SOUTH EAST ARROW WITH HORIZONTAL TAIL

- 2B5E BENT ARROW POINTING DOWNWARDS THEN NORTH EAST
- 2B5F SHORT BENT ARROW POINTING DOWNWARDS THEN NORTH EAST
- b. 2 characters in the Supplemental Punctuation block:
 - 2E3D VERTICAL SIX DOTS
 - 2E3E WIGGLY VERTICAL LINE
- c. 2 character in the Latin Extended-D block:
 - A794 LATIN SMALL LETTER C WITH PALATAL HOOK
 - A795 LATIN SMALL LETTER H WITH PALATAL HOOK, and,
- d. 2 character additions to the Cyrillic Extended-B block:
 - A69C MODIFIER LETTER CYRILLIC HARD SIGN
 - A69D MODIFIER LETTER CYRILLIC SOFT SIGN

The glyphs are as shown in the consolidated charts in document [N4107](#).

11.1.4 Glyph for Tifinagh Consonant Joiner

Input document:

[4069](#) Documenting a fallback glyph for Tifinagh Consonant Joiner; Lorna A. Priest, Jon Coblentz (SIL); 2011-05-19

Mr. Peter Constable: The proposal is about the representative glyph for the encoded character 2D7F. This character behaves similar to Virama to allow combining with following character in Tifinagh. The similar character in Khmer script had a glyph that could be presented in a fallback situation. The proposal in document [N4069](#) is to have similar fallback visual representation for Tifinagh Consonant Joiner at 2D7F; a dotted square with a bunch of dots as underscore and combining.

Disposition:

Accept the glyph change at 2D7F in the 3rd edition.

Relevant Resolution:

M58.04 (Correction of glyphs): WG2 accepts changing the representative glyphs for:

- 2D7F TIFINAGH CONSONANT JOINER to that shown in document [N4069](#);
- Adjustments to several glyphs arising from ad hoc report on Wingdings and Webdings as described in document [N4115](#).

11.1.5 Duployan Shorthands and Chinook script and Shorthand Format Controls in UCS

Input documents:

- [3895](#) Proposal to include Duployan Shorthands and Chinook script and Shorthand Format Controls in UCS - revised; Van Anderson; 2010-09-24
- [3908](#) On ordering and the proposed Duployan script for shorthands and Chinook; Irish NB; 2010-09-21
- [3922](#) Response to Irish NB comments N3908 - Duployan proposal N3895r; Van Anderson; 2010-09-24
- [3932](#) UTC Liaison Report; Unicode Consortium – Peter Constable; 2010-09-30
- [3940](#) Quick response to Irish NB comments N3931; Van Anderson; 2010-10-05
- [4088](#) Resolving chart and collation order for the Duployan script; Van Anderson and Michael Everson; 2011-05-30

Mr. Michael Everson: We had a spirited discussion about the organization of the code charts and two different viewpoints on how the characters should be represented. I and Mr. Van Anderson worked together and worked out a compromise resolving the various concerns. Both of us have checked these and have been sent to other interested experts in the Unicode Consortium. I think the new charts are ready to go for ballot now.

Discussion:

- a. Dr. Deborah Anderson: Stenographic full stop is in another block 2E3C.

Disposition:

Accept the revised proposal for next amendment. See relevant resolution **M58.20** below.

Relevant Resolution:

M58.20 (Duployan Shorthands): WG2 accepts to encode the 148 characters required for Duployan Shorthands and Chinook script as follows:

- a. 2E3C STENOGRAPHIC FULL STOP (changed from 'Stenographic Period') in the Supplemental Punctuation block, with its glyph as shown in document [N3895](#);

- b. create a new block Duployan in the range 1BC00 to 1BC9F, and populate it with 143 characters at code points 1BC00 to 1BC6A, 1BC70 to 1BC7C, 1BC80 to 1BC88, 1BC90 to 1BC99, and 1BC9C to 1BC9F, with their names and glyphs from document [N4088](#), and
- c. create a new block Shorthand Format Controls in the range 1BCA0 to 1BCAF, and populate it with four characters in code positions 1BCA0 to 1BCA3 with their names and glyphs from document [N4088](#).

11.2 Proposed additions to ISO/IEC 10646 from USNB

Input document:

[3995](#) Proposed additions to ISO/IEC 10646; USNB; 2011-02-11

Individual items from this proposal were discussed under various other agenda items.

11.2.1 Khojki Script

Input documents:

[3883](#) Revised Proposal to Encode the Khojki Script in ISO/IEC 10646; Anshuman Pandey; 2010-09-10

[3978](#) Final Proposal to Encode the Khojki Script in ISO/IEC 10646; Anshuman Pandey; 2011-01-28

Dr. Deborah Anderson: Document [N3978](#) is a revised proposal for Khojki script. Earlier versions have been seen by WG 2. It is used by Nizari Ismaili community in South Asia. It is still used by the Ismaili community in different parts of the world. This has been reviewed by experts. The U.S. national body has reviewed this and finds this to be mature to go ahead.

Discussion:

- a. Mr. Michael Everson: The Irish national body has reviewed this and is perfectly happy with this. Well done.
- b. Dr. Ken Whistler: As to the character 11234, the glyph is a combining dot to the right. See document [N3995](#) for more information.

Disposition:

Accepted for next amendment. See relevant resolution **M58.11** below.

Relevant Resolution:

M58.11 (Khojki script): WG2 accepts to create a new block named Khojki in the range 11200 to 1124F, and populate it with 61 characters in code positions 11200 to 11211, and 11213 to 1123D, with their glyphs and character names as shown on page 4 in document [N3978](#). The repertoire includes some combining characters.

11.2.2 Typikon Symbols

Input document:

[3971](#) Proposal to encode the Typikon Symbols; Yuri Shardt, Nikita Simmons, Aleksandr Andreev; 2011-01-03

Dr. Deborah Anderson: The proposal in document [N3971](#) is for one Typikon symbol used by church group. Old Rite Text uses this in Russia. The proposed character is a reversed form of 1F543 but has a different meaning. The U.S. national body supports inclusion of this. It is from the same group which proposed other Typikon symbols.

Disposition:

Accepted new character 1F544 NOTCHED RIGHT SEMICIRCLE WITH THREE DOTS for next amendment. See item **a** in relevant resolution **M58.22** on page 54.

11.2.3 Mark's Chapter Symbol

Input document:

[3998](#) Proposal to Encode the Mark's Chapter Symbol in the Unicode Standard; Aleksandr Andreev, Yuri Shardt, Nikita Simmons; 2011-02-24

Dr. Deborah Anderson: Contribution in document [N3998](#) asks for 1 symbol – used for margin symbol – attributed to monk Mark. There are different variants of this symbol, shown in Figure 4. It is used in Russian Orthodox Typikon. The U.S. national body has reviewed this and based on our feedback the proposal has been revised.

Discussion:

- a. Mr. Michael Everson: The name is proposed to be SYMBOL FOR MARK'S CHAPTER. I had discussed with the proposers, and they were in agreement with it. There is a new proposed glyph different from [N3998](#), which is also acceptable to the authors.

Disposition:

Accepted for next amendment, with revised glyph and updated name. See item **b** in relevant resolution **M58.22** on page 54.

11.2.4 South Indian CANDRABINDU-s

Input document:

[3964](#) Request to encode South Indian CANDRABINDU-s; Shriramana Sharma; 2011-08-24

Dr. Deborah Anderson: Proposal from Mr. Shriramana Sharma in document N[3964](#) is for three Candrabindu characters for Telugu, Kannada and Malayalam. Used for nasality in writing Sanskrit. To represent Sanskrit text we need these signs. Telugu 0101 is named Candrabindu but is named Arasunna a half-circle character The Candrabindu is different. To avoid clash of names, 'Candrabindu Above' is proposed. An annotation is provided for the current character to avoid the confusion. Several examples are shown. The U.S. national body has reviewed and accepts these as ready for encoding.

Disposition:

Accept the three proposed characters, and an annotation for 0C01. See item **c** in relevant resolution **M58.22** on page 54.

11.2.5 Arabic Mark SIDEWAYS NOON GHUNNA

Input document:

[3989](#) Proposal to add ARABIC MARK SIDEWAYS NOON GHUNNA; Lorna A. Priest (SIL International); 2011-02-10

Dr. Deborah Anderson: Document N[3989](#) contains a proposal for a single character used in Palula and Shina in Northern Pakistan. The proposal contains the background information. The U.S. national body has reviewed this and recommends accepting it.

Disposition:

Accept the new character for next amendment. See item **d** in relevant resolution **M58.22** on page 54.

11.2.6 Arabic Letter BEH WITH HAMZA ABOVE

Input document:

[3988](#) Proposal to add ARABIC LETTER BEH WITH HAMZA ABOVE; Lorna A. Priest, Martin Hosken (SIL International); 2010-10-25

Dr. Deborah Anderson: The character requested in document N[3988](#) was proposed earlier in year 2010 as part of another set. It was removed from that set pending further information. It is a single consonant in Fulfulde, requiring need for including vowels above this character. The U.S. national body has reviewed this and recommends accepting it.

Disposition:

Accept the new character for next amendment. See item **e** in relevant resolution **M58.22** on page 54.

11.2.7 Two additional Kana characters

Input documents:

[3987](#) Proposal to add two kana characters; Ken Lunde; 2011-02-09

[4087](#) Comments on "Two Kana" Proposal in N3987; Japan NB; 2011-05-30

Output documents:

[4108](#) A response regarding small ko; Masahiro Sekiguchi; 2011-06-08

Dr. Deborah Anderson: Two versions of small KO for Hiragana and for Adobe-Japan-14 collection, are proposed in document N[3987](#). There are eight instances of each character in the vendor font set. However these are not in the UCS. The proposal is to add HIRAGANA LETTER SMALL KO and KATAKANA LETTER SMALL KO.

Discussion:

- a. Mr. Masahiro Sekiguchi: Our feedback is in document [N4087](#). Japan is not in favour of adding these two characters. We consider that these are not used in real world. It appeared first in Shaken, a leading Japanese vendor of typesetting. It got picked up by other vendors. Nobody knows why these were introduced in Shaken in the first place. There is no evidence of use of these two. The U.S. proposal states that these appear in Adobe character set. We would like to know in what context these are used in the real world. We would like to see some reasonable examples.
- b. Dr. Deborah Anderson: I have asked for real evidence of use of these.
- c. Mr. Mike Ksar: Are we going to await more evidence?
- d. Mr. Peter Constable: Whether the characters are used by a user or not, would interoperability between vendors not be a consideration?
- e. Mr. Masahiro Sekiguchi: Similar forms exist for more than 30 characters. For example they can be encountered on Windows. If they are exchanged between proprietary systems then I will not object to it. They are present in some products.
- f. Dr. Ken Whistler: When Japanese national body found no evidence of use, did they consider the use of Katakana small KO for use in Phonetic usage for other languages. Small KO is not used for Japanese at all. Has Japanese national body considered the possibility of whether Katakana small KO is used for transcription of other languages?
- g. Mr. Masahiro Sekiguchi: A text book was found using Katakana small KO. But that book uses several other small Katakana letters also. Adobe font could not be used to produce that text book.
- h. Dr. Ken Whistler: At least one use of Katakana small KO was found.
- i. Mr. Masahiro Sekiguchi: If that was the evidence, the proposal should state so.
- j. Dr. Ken Whistler: Can Japan provide that reference to allow us to evaluate and update the U.S. proposal? Even an ad hoc usage may be reason to justify encoding in some cases.
- k. Mr. Masahiro Sekiguchi: I can provide the information from the member of Japan committee to you. (Document [N4108](#) contains the requested information).

Disposition:

Postpone till more rationale is provided.

11.2.8 Greek Capital Letter YOT

Input document:

[3997](#) Proposal to encode GREEK CAPITAL LETTER YOT; Michael Bobeck; 2010-12-12

Dr. Deborah Anderson: The proposal in document [N3997](#) from Mr. Michael Bobeck, asks for upper version of Greek letter YOT. It is used in Etymological texts. This character was proposed earlier in 1999. Now there is more evidence provided in this document. The U.S. national body has reviewed this and would recommend acceptance.

Discussion:

- a. Mr. Michael Everson: An excellent idea; lower case letters should have capitals.

Disposition:

Accept the new character 037F GREEK CAPITAL LETTER YOT for next amendment. Add annotations for 03F3 and 037F. See item **f** in relevant resolution **M58.22** on page 54.

11.2.9 Elbasan script

Input document:

[3985](#) Proposal for encoding the Elbasan script in the SMP of the UCS; SEI - Michael Everson and Robert Elsie; 2011-02-03

Mr. Michael Everson: Writing came to Albanians relatively late. They have used several scripts. They had devised their own; the earliest is known as Elbasan Gospel script (also known as Anonymous of Elbasan). The text has been read. It is a simple alphabetic script. It has no complex shaping etc. They have two letters for n (there is an error in section 2, but has been corrected in the nameslist). Generic combining characters are suggested to be used. There are no known numerals or punctuations. They use Greek numbers (used with special fonts). They have a space and a separator dot. This document [N3985](#) replaces preliminary proposal in document [N3856](#).

Discussion:

- a. Dr. Deborah Anderson: The U.S. national body has reviewed this and recommends its encoding.

Disposition:

Accept the proposal for next amendment. See relevant resolution **M58.12** below.

Relevant Resolution:

M58.12 (Elbasan script): WG2 accepts to create a new block named Elbasan in the range 10500 to 1052F, and populate it with **40** characters in code positions 10500 to 10527, with their glyphs and character names as shown on pages 19 and 20 in document [N3985](#).

11.2.10 Nabataean script

Input document:

[3969](#) **Proposal for encoding the Nabataean script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project) – Michael Everson; 2010-12-09**

Mr. Michael Everson: Nabataean was spoken in the kingdom of Nabatean during 2nd to 4th century CE. It was also used in 3rd century in Sinai. 40 characters are proposed. The characters are more ornate than the Aramaic script, Many ligatures were introduced; however, very chaotic. It was not possible to treat these characters similar to Arabic. Scholars basically recommend a simple way to deal with the ligatures. It is a right to left horizontal script. Examples are provided with and without ligation. A sort order is provided. The repertoire includes numbers. The experts provided me with enlarged samples for each letter which enabled me to produce the fonts.

Discussion:

- a. Mr. Peter Constable: [N3875](#) was a previous contribution. The UTC experts have reviewed these and we consider the proposal to be mature enough for encoding.
- b. Dr. Deborah Anderson: The U.S. national body also has reviewed this and recommends its acceptance for encoding.

Disposition:

Accept the proposal for next amendment. See relevant resolution **M58.13** below.

Relevant Resolution:

M58.13 (Nabataean script): WG2 accepts to create a new block named Nabataean in the range 10880 to 108AF, and populate it with **40** characters in code positions 10880 to 1089E, and 108A7 to 108AF, with their glyphs and character names as shown on page 4 in document [N3969](#).

11.2.11 Linear A script

Input document:

[3973](#) **Revised proposal for encoding the Linear A script in the SMP of the UCS; UC Berkeley Script Encoding Initiative - Michael Everson and John Younger; 2010-12-28**

Mr. Michael Everson: Document [N3973](#) replaces earlier proposals in documents [N3774](#) and [N3872](#). Linear A is a script related to Linear B. Background information is provided in the document. Scholars recommend its encoding even though we don't know how to decode the text yet. The proposed naming is based on the GORILA catalogue consisting of a basic set of characters to assist in decipherment. Collation is in the same order as the encoding order. The components are proposed to be encoded. Several of these in the catalog shown on page 2 are compounds of various elements. It has a number system and is described in section 5.

Discussion:

- a. Dr. Deborah Anderson: The work on this proposal has several reviews and Mr. Michael Everson has worked with experts on this topic. SEI and the U.S. national body have reviewed these and we consider it mature to go ahead for encoding.
- b. Mr. Masahiro Sekiguchi: The feedback from Japanese experts is that Linear A has not yet been fully deciphered. If they discover some duplicates the encoding may be a problem.
- c. Mr. Michael Everson: It is true in theory. Also it is true that the decipherment may take a long long time. The tokens are considered to be adequate for the efforts towards decipherment. The same Aegean scholars consider these to be OK to encode. The handful of scholars who are with Linear A are all known to us and they are all OK with these.

Disposition:

Accept the proposal for next amendment. See relevant resolution **M58.14** below.

Relevant Resolution:

M58.14 (Linear A script): WG2 accepts to create a new block named Linear A in the range 10600 to 1077F, and populate it with **341** characters in code positions 10600 to 10736, 10740 to 10755 and 10760 to 10767, with their glyphs and character names as shown on pages 5 to 11 in document N[3973](#).

11.2.12 Limbu Letters GYAN and TRA

Input document:

[3975](#) **Proposal to Encode the Letters GYAN and TRA for Limbu in the UCS; Anshuman Pandey; 2011-01-14**

Dr. Deborah Anderson: The contribution in document N[3975](#) from Mr. Anshuman Pandey is requesting two additional Limbu characters. These are needed for writing contemporary Limbu in addition to the encoded character. Examples of use are shown. They were discussed in the earlier proposal but were not accepted at that time.

Discussion:

- a. Mr. Michael Everson: I would like to have annotation for GYAN --- as equivalent of JNA.

Disposition:

Accept the two proposed Limbu characters for next amendment. See item **g** in relevant resolution **M58.22** on page 54.

11.2.13 Marwari Letter DDA in Devanagari

Input document:

[3970](#) **Proposal to Encode the Marwari Letter DDA for Devanagari; Anshuman Pandey; 2011-03-30**

Dr. Deborah Anderson: Single character for use in regional languages using Devanagari script for Marwari is proposed. It is proposed to be added to Devanagari block.

Disposition:

Accept 0978 DEVANAGARI LETTER MARWARI LETTER DDA for next amendment. See item **h** in relevant resolution **M58.22** on page 54.

11.2.14 Some outstanding early Cyrillic characters

Input document:

[3974](#) **Proposal to encode some outstanding early Cyrillic characters; Yuri Shardt, Nikita Simmons, Aleksandr Andreev; 2011-02-25**

Dr. Deborah Anderson: Document N[3974](#) contains a proposal for four characters for Orthodox Christian publications in early Slavonic Cyrillic script. The document shows several examples. Experts have confirmed that there is enough evidence to proceed. The U.S. national body has reviewed these and recommends acceptance.

Discussion:

- a. Mr. Michael Everson: They are cute and wonderful and I love them.

Disposition:

Accept four Cyrillic characters in Cyrillic Extended B block, for next amendment. See item **i** in relevant resolution **M58.22** on page 54.

11.3 Hungarian Runic/Szekely-Hungarian Rovas

Input documents:

[3566](#) **Hungarian Native Writing Proposal - Revised; BAKONYI, Gábor; 2009-02-05**

[3664](#) **Proposal for encoding generic punctuation used with the Hungarian Runic script; Michael Everson & André Szabolcs Szelp; 2009-07-22**

[3697](#) **Proposal for encoding the Hungarian Runic script in the UCS; Michael Everson & André Szabolcs Szelp; 2009-10-14**

[4007](#) **Revised proposal for encoding the Szekely-Hungarian Rovas script in the SMP of the UCS; Hungarian National Body - Gábor Hosszú; 2011-05-21**

[4042](#) **Mapping between Hungarian Runic proposals in N3697 and 4007; Michael Everson and André Szabolcs Szelp; 2011-05-08**

[4055](#) **Notes on the Szekely-Hungarian Rovas script; Dr. Gábor Hosszú Hungarian National Body; 2011-05-15**

- [4064](#) Comparison of Hungarian Runic and Szekely-Hungarian Rovas proposals; SEI; 2011-05-07
- [4076](#) Comments on encoding the Rovas scripts; Gábor Hosszú (Hungarian NB); 2011-05-22
- [4080](#) Issues of encoding the Rovas scripts; Gábor Hosszú (Hungarian National Body); 2011-05-25
- [4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Output document:

- [4110](#) Ad hoc report on Hungarian; Peter Constable; 2011-06-09

Mr. Peter Constable: The ad hoc group met to discuss the several contributions variously called Hungarian Runic, Hungarian Rovas etc. There were differences in opinion on name of the script, the set of characters, the names etc. Some consensus was reached. A set of 111 characters was agreed upon. The script name was agreed to be Old Hungarian. It includes 2 punctuation characters in the Supplemental Punctuation block and remaining in a new block named Old Hungarian. Some characters that were not agreed upon were left for future considerations. I would like to thank Mr. Michael Everson for preparing the ad hoc report. Details are given in the ad hoc report document [N4110](#).

Discussion:

- a. Dr. Ken Whistler: The consensus among the ad hoc participants was some of the input documents are not mature enough. The authors may request these documents to be considered again at their option.

Disposition:

Adopt the ad hoc recommendation in document [N4110](#), for encoding in next amendment. See relevant resolution **M58.18** below.

Relevant Resolution:

M58.18 (Old Hungarian script): WG2 accepts the recommendation in the ad hoc report on Hungarian Runic/Szekely-Hungarian Rovas, (document [N4110](#)) and accepts to encode in the standard 111 characters as follows:

- a. 2E41 REVERSED COMMA, and,
2E42 DOUBLE LOW-REVERSED-9 QUOTATION MARK,
In the Supplemental Punctuation block,
- b. create a new block called Old Hungarian in the range 10C80 to 10CFF and populate it with 109 characters in code positions 10C80 to 10CB2, 10CC0 to 10CF2 and 10CF9 to 10CFF.
with their glyphs and character names as shown in pages 4 to 7 in document [N4110](#).

11.4 Pau Cin Hau alphabet

Input documents:

- [4017](#) Proposal to Encode the Pau Cin Hau Alphabet in ISO/IEC 10646; SEI - Anshuman Pandey; 2011-04-27
- [4057](#) Further Proposed Additions to ISO/IEC 10646; USNB; 2011-05-13

Dr. Deborah Anderson: Pau Cin Hau alphabet is a liturgical script for Laipian religious tradition, in Chin State of Myanmar. The alphabet is named after Pau Cin Hau. Previous proposals have been reviewed and discussed extensively. The U.S. national body experts have reviewed this and are recommend encoding these.

Discussion:

- a. Dr. Ken Whistler: The characters, glyphs and names are fine as proposed. But the roadmap committee is recommending a different location and code points for these – to start at 11AC0.

Disposition:

Accept the proposed 57 characters in new PAU CIN HAU block starting at 11AC0. See relevant resolution **M58.15** below.

Relevant Resolution:

M58.15 (Pau Cin Hau script): WG2 accepts to create a new block named Pau Cin Hau in the range 11AC0 to 11AFF, and populate it with 57 characters in code positions 11AC0 to 11AF8, with their glyphs and character names as shown in the consolidated charts in document [N4107](#).

11.5 Naxi Dongba Pictographs

Input documents:

- [3935](#) Revised Proposal for Encoding Naxi Dongba Pictograph in the SMP of the UCS (preliminary); China National Body; 2010-10-03

[3965](#) Comments on “Revised Proposal for Encoding Naxi Dongba Pictograph in the SMP” (N3935); U.S. NB; 2010-11-05

[4043](#) Revised Proposal for Encoding Naxi Dongba Pictographic script; China NB; 2011-05-08

[4060](#) Comments on Proposal for encoding Naxi Dongba Pictographic script (4043); USNB; 2011-05-13

Output document:

[4112](#) Ad hoc report on Naxi Dongba; Tero Aalto; 2011-06-08

Mr. Tero Aalto: The ad hoc report is in document [N4112](#). The ad hoc considered the different proposals. We came to the conclusion that the evidence presented was not adequate and China is requested to revise the proposal based on the ad hoc discussions. The modern use of the script is to be demonstrated.

Discussion:

- a. Mr. Masahiro Sekiguchi: Has this final ad hoc report been discussed by the Chinese experts? I was there at the ad hoc also. I wanted Chinese experts to review this final report and are agreeable to it.

Disposition:

Accept the ad hoc recommendations. See relevant resolution **M58.30** below.

Relevant Resolution:

M58.30 (Naxi Dongba pictographs): With reference to proposal from China in document [N4043](#), WG2 endorses the ad hoc report in document [N4112](#), and invites China to submit a revised proposal taking into consideration the recommendations in the ad hoc report.

11.6 Three additional emoticons

Input document:

[3982](#) Proposal to encode three additional emoticons the UCS; German NB; 2011-01-03

Mr. Karl Pentzlin: We found two emoticons were missing in the collection of emoticons we have encoded. The SLIGHTLY frowning and smiling have been used in practice.

Discussion:

- a. Dr. Umamaheswaran: Where is the third one used? (In restaurants.) Is the word ELITE inside part of the symbol? If it is, it would need several translated versions.
- b. Mr. Peter Constable: We had reviewed this contribution in UTC. We were willing to accept the slightly modified versions based on the information provided. However we have similar concerns to what Dr. Umamaheswaran had raised on the ELITE version.
- c. Mr. Karl Pentzlin: We could accept postponing the third one till clarification is made.
- d. Mr. Masahiro Sekiguchi: The examples you have supplied do not look like being used inline. The question is - do we really want to encode graphic images? Are these characters?
- e. Mr. Karl Pentzlin: They are used in responses as inline text.
- f. Dr. Ken Whistler: The table on page 6 shows a table using these in text (as row labels). The ELITE smiley has problems with it.

Disposition:

Accept 1F641 SLIGHTLY FROWNING FACE, and 1F642 SLIGHTLY SMILING FACE, for next amendment. See item j in relevant resolution **M58.22** on page 54.

11.7 Punctuation mark “Double Hyphen”

Input document:

[3983](#) Revised Proposal to encode a punctuation mark “Double Hyphen”; German NB; 2011-01-17

Mr. Karl Pentzlin: The proposal in document [N3983](#) is for a single character Double Hyphen for German literature. It contrasts with single hyphen in use today. One use is in transcribing old manuscripts to distinguish from where regular hyphen occurs. Another instance is use of these in older German orthographies as punctuation. The examples are provided in the proposal document. We have proposed the new character at 2E40, different from what is in document [N3983](#).

Discussion:

- a. Mr. Michel Suignard: I would prefer to reduce the set of annotations proposed.
- b. Dr. Deborah Anderson: Besides Mr. Arnold Schmidt, are there other authors using this?
- c. Mr. Karl Pentzlin: I am not aware.

- d. Mr. Michael Everson: I am sure I have seen other literature using it.
- e. Mr. Masahiro Sekiguchi: Japan had requested a similar character about 10 years ago; for similar use in the Japanese context. The discussion at that time was the name Double Hyphen was too general for use beyond Japanese. It became Hiragana, Katakana double hyphen. This proposal looks like you found new usage for that symbol, to be used with Latin script. Why can't that Hiragana/Katakana double hyphen be used with Latin instead of a new character? Is there a problem with using that character?
- f. Mr. Peter Constable: The property of the character is 'common'.
- g. Mr. Michael Everson: It is encoded in the Katakana block; no European user would look there.
- h. Mr. Karl Pentzlin: There is also a Katakana middle dot etc.
- i. Mr. Peter Constable: Is there a script restriction? For 30A0, there is a 'script' property – 'common'. There is another property 'width' – Double Wide. The rendering based on the width property may not render it correctly for German orthography. The expected implementation is like Latin.
- j. Dr. Ken Whistler: The property for the Unicode file will be 'common'. There is also the line break property. The Katakana double hyphen is a nonstarter, whereas the proposed character will have 'Break After' etc. Besides width, the line break property will be another differentiator to the Katakana double hyphen.
- k. Mr. Masahiro Sekiguchi: I would suggest that the Katakana double hyphen is included in annotation cross referencing 30A0 to indicate that they are similar but different.
- l. Ms. Eveline Wandl-Vogt: We would support this proposed character.

Disposition:

Accept 2E40 DOUBLE HYPHEN with a cross reference to 30A0 and from 30A0 and 2E40, for next amendment. See item **k** in relevant resolution **M58.22** on page 54.

11.8 Comments on [N3910](#) “Proposal for Encoding Chinese Chess Symbols”

Input documents:

[3910](#) Proposal for Encoding Chinese Chess Symbols; China NB; 2010-09-16

[3966](#) Comments on “Proposal for Encoding Chinese Chess Symbol in the SMP” (N3910); U.S. NB; 2010-11-05

[3992](#) ROK's Comments on “Proposal for Encoding Chinese Chess Symbol in the SMP” (N3910); ROK NB; 2011-03-03

There was no discussion at the meeting.

Relevant Resolution:

M58.31 (Chinese Chess symbols): With reference to proposal from China in document [N3910](#), WG2 invites China to submit a revised proposal taking into consideration the feedback comments received in documents [N3966](#) and [N3992](#).

11.9 Additional Runic characters

Input documents:

[4013](#) Proposal to encode additional Runic characters in the UCS; Michael Everson and Andrew West; 2011-04-01

[4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Mr. Michael Everson: Document [N4013](#) requests eight additional Runic characters. Three of these were devised by JRR Tolkien. The other five are from Franks Casket (figures are shown).

Discussion:

- a. Mr. Karl Pentzlin: The German national body has reviewed this and agrees with their encodings.
- b. Dr. Deborah Anderson: The U.S. is in agreement with three of them. We have concerns on the other five.
- c. Mr. Michael Everson: There is a revised document. Looks like it is not in WG 2 register. (a revised version has been posted on 2010-06-09).

Disposition: Carry forward.

Action item:

National bodies to review and provide feedback.

11.10 Manichaean script

Input documents:

- [4029](#) Second revised proposal for encoding the Manichaean script in the SMP of the UCS; SEI - Michael Everson, Desmond Durkin-Meisterernst, Roozbeh Pournader, and Shervin Afshar; 2011-05-10
- [4057](#) Further Proposed Additions to ISO/IEC 10646; USNB; 2011-05-13

Mr. Michael Everson: This proposal has been around for a long time. Document N[4029](#) contains the latest proposal. It replaces all the previous documents N2544, N[3378](#) and N[3644](#). The basic repertoire has not changed. Some of the features like the shaping behaviour have been revised. It has been simplified, and made closer to Arabic shaping. In Manichaean sometimes things join and sometimes they do not. Character properties have been provided.

Discussion:

- a. Mr. Peter Constable: The UTC has reviewed this and considers it is mature for encoding.
- b. Dr. Deborah Anderson: The U.S. national body has also reviewed this and considers it mature for encoding.

Disposition:

Accept the 51 characters for next amendment in a new block MANICHAEAN in the SMP 10AC0-10AFF. See relevant resolution **M58.16** below.

Relevant Resolution:

M58.16 (Manichaean script): WG2 accepts to create a new block named Manichaean in the range 10AC0 to 10AFF, and populate it with 51 characters in code positions 10AC0 to 10AE6, and 10AEB to 10AF6, with their glyphs and character names as shown on page 11 in document N[4029](#).

11.11 Additional Characters for Uighur and Chaghatay Languages

Input documents:

- [4066](#) Proposing to supplement with the Script and character of Chaghatay language; China NB; 2011-05-13
- [4067](#) Proposal to Encode Special Scripts and Characters in UCS for Uighur language; China NB; 2011-05-15

Output document:

- [4113](#) Ad hoc report on Uighur & Chaghatay; Tero Aalto; 2011-06-08

The above documents were considered in an ad hoc group.

Mr. Tero Aalto: The request was for 8 characters in document N[4067](#). The ad hoc group concluded that because these characters can be represented by sequences of existing code points they can be represented by Named USIs. The same solution was also agreed upon for the single character requested for Chaghatay language in document N[4066](#). See ad hoc report in document N[4113](#).

Discussion:

- a. Mr. Mike Ksar: The ad hoc group included Dr. Lu Qin and Prof. Yoshiki Mikami who assisted in arriving at the consensus. Prof. Silamu has agreed to follow the ad hoc group recommendations.

Disposition:

Adopt N[4113](#) and request China to prepare a revised contribution. See relevant resolution **M58.29** below.

Relevant Resolution:

M58.29 (Additional characters for Uighur and Chaghatay): With reference to requests from China in documents N[4066](#) and N[4067](#), WG 2 endorses the ad hoc report in document N[4113](#), and invites China to submit a revised proposal, based on Named USI sequences, taking into consideration the consensus in the ad hoc report.

11.12 Arabic characters used for Bashkir, Belarusian, Crimean Tatar, and Tatar languages

Input documents:

- [4057](#) Further Proposed Additions to ISO/IEC 10646; USNB; 2011-05-13
- [4065](#) Proposed code points and properties for characters in "Proposal to encode Arabic characters used for Bashkir, Belarusian, Crimean Tatar, Karachay, Karakalpak, and Tatar languages"; Roozbeh Pournader (via D. Anderson, UC Berkeley); 2011-05-12
- [4072](#) Revised Proposal to encode Arabic characters used for Bashkir, Belarusian, Crimean Tatar, and Tatar languages – duplicate of 4071; Ilya Yevlampiev, Karl Pentzlin, Nurlan Joomagueldinov; 2011-05-20

Mr. Karl Pentzlin: Several characters in Arabic characters used in Soviet Union in 1930s for languages such as Bashkir, Belarusian, Crimean Tatar etc. were proposed in document N4065. It was reviewed by the UTC and the document N4072 is a revised proposal. Five characters are proposed.

Disposition:

Accept the five proposed characters for next amendment. See item I in relevant resolution M58.22 on page 54.

11.13 Additions to Old Italic script

Input documents:

[4046](#) Proposal to Encode Additional Old Italic Characters; UC Berkeley SEI - Christopher C. Little; 2011-05-17

[4057](#) Further Proposed Additions to ISO/IEC 10646; USNB; 2011-05-13

Dr. Deborah Anderson: The proposal in document N4046 is to add two characters to Old Italic block. See the proposal document for background and more information.

Discussion:

- a. Mr. Michael Everson: We are not comfortable with the consequence of encoding the Rhetic character that would mean unification with other Italic scripts. It requires further discussion.
- b. Dr. Ken Whistler: The U.S. national body would prefer to have both characters. However we could wait for Rhetic for further discussion, in view of UK and Irish comments. The people who had used these have been dead for over 2000 years, so one more round of ballot is not going to harm anyone.

Disposition:

Accept only one character 1031F OLD ITALIC LETTER ESS for now, for the next amendment. Await further clarification on the second character. See item m in relevant resolution M58.22 on page 54.

Action item:

National bodies to feedback on the proposed Rhetic character.

11.14 Font for Oracle Bone scripts

Input documents:

[4048](#) Request for comments on font-making of oracle-bone scripts; TCA; 2011-05-13

[4095](#) Comments on Oracle Bone font 4048; Japan NB - suzuki toshiya; 2011-06-03

Mr. Masahiro Sekiguchi: Document N4095 contains the Japanese input. I will summarize the concerns from Japan. When Japanese experts reviewed the first time contribution N4048 from TCA, there was a statement that it takes about a million dollars to generate the true type fonts for the Oracle script. TCA requested for feedback. We had no intention of creating the fonts at this moment. Japan had also had a contribution on how to proceed with the encoding of the Oracle bone scripts, such as Unification Rules etc. before we addressed the font issue. We have documented our concerns in document N4095. I had discussion with Ms. Lin-Mei Wei of TCA this week. TCA had the real intention of creating the true type font. I am not sure of their real plan. They will not start the font development right now. They want some design rules before they can start the work. TCA was asking for feedback on the design rules for developing the font. That request for feedback is understandable. The Japanese experts are not comfortable to start with the design rules at this time. We need to come up with the guidelines for the encoding part; what the significant features are etc. before the work on font rules etc. can even start. I want to ensure that WG 2 is aware of the issues associated with the request from TCA.

Discussion:

- a. Mr. Mike Ksar: N4048 from TCA was submitted to IRG also, but it has not been considered yet.
- b. Mr. Michael Everson: The TCA requesting for feedback on developing the appropriate font.
- c. Mr. Masahiro Sekiguchi: One of the frustrations Japanese experts have is that setting of the rules to follow in the development of Oracle Bones scripts etc. is not going well. They have some preliminary work done.
- d. Dr. Umamaheswaran: I think IRG has to deal with it; I am not sure WG 2 can deal with it.
- e. Dr. Ken Whistler: This topic is non-standardized ancient text. It is unlike CJK unification etc. The principles are quite different and any unification rules should have nothing to do with the Han unification rules. They could take what happened with the Sumerian-Akkadian cuneiforms.

Experts were able to get together, arrive at a set of principles and a repertoire. The group looking for how to proceed with Oracle scripts can look at how Cuneiforms were dealt with.

- f. Dr. Umamaheswaran: If we can suggest any contact names to forward to the Oracle Bones group it will be helpful.
- g. Mr. Michael Everson: I will pass on the contact names etc to Ms. Lin-Mei Wei.

Action item:

If national bodies have comments on document [N4048](#) ..., to send the feedback to TCA and to IRG.

11.15 Combining Triple Diacritics in plain text

Input document:

[4078](#) **Proposal to enable the use of Combining Triple Diacritics in Plain Text; German NB; 2011-05-22**

Mr. Karl Pentzlin: In German directory and Uralic etc. there are diacritics which span three letter positions etc. There are several possibilities to encode these. Whether we encode the building blocks as we have proposed or as characters as a whole - we are open to it - but we need a solution. Others may have a requirement for spans over more than three letters, but that is not our intent in Germany. Based on the UTC feedback, our proposal is based on building block approach.

Discussion:

- a. Mr. Michael Everson: Ireland had an action item to communicate feedback to Germany. The encoding model similar to Coptic conjoining macrons etc. could be used. Some of the existing encoded Macrons could be used for the requirement. Two halves of ligature above and ligature below would be needed instead of what is proposed as FE29 in document [N4078](#).
- b. Mr. Karl Pentzlin: We will provide a revised version of this document.
- c. Dr. Deborah Anderson: The U.S. national body has not seen this proposal yet. We can take a look at the revised version.
- d. Mr. Masahiro Sekiguchi: My question is about font rendering technology. Your example seems to assume that these combining marks will combine with characters to provide a specific shape for rendering. I am not sure if the current font technology facilitates the desired rendering results.
- e. Mr. Michael Everson: I have implemented the Coptic mark, which looks like a straight line. This would be a little bit more complicated but doable.

A revised document [N4078](#) was provided by Mr. Karl Pentzlin.

Mr. Karl Pentzlin: Considering the feedback from UTC and from Mr. Michael Everson, we decided to go with the building block model. First character gets the starting one, the last one gets the ending one and the middle one gets the macron. We are proposing five characters.

Disposition:

Accept five combining marks in the Combining Half marks block for the next amendment. See item **n** in relevant resolution **M58.22** below.

Relevant Resolution:

M58.22 (Miscellaneous character additions): WG2 accepts to encode the following 29 characters in the standard:

- a. 1F544 NOTCHED RIGHT SEMICIRCLE WITH THREE DOTS in the Miscellaneous Symbols and Pictographs block, with its glyph as shown in Table 1 in document [N3971](#);
- b. 1F545 SYMBOL FOR MARKS CHAPTER in the Miscellaneous Symbols and Pictographs block, with its glyph as shown in consolidated charts in document [N4107](#);
- c. 0C00 TELUGU SIGN COMBINING CANDRABINDU ABOVE in the Telugu block with a corresponding annotation to 0C01 "indicates a contextually elided nasal" to differentiate it from 0C00 0C81 KANNADA SIGN CANDRABINDU in the Kannada block, and, 0D01 MALAYALM SIGN CANDRABINDU in the Malayalam block, with their glyphs as shown on page 7 in document [N3964](#) (all these three are combining marks);
- d. 08FF ARABIC MARK SIDEWAYS NOON GHUNNA, a combining mark, in the Arabic Extended-A block, with its glyph as shown in the table at the top of page 2 in document [N3989](#);
- e. 08A1 ARABIC LETTER BEH WITH HAMZA ABOVE, in the Arabic Extended-A block, with its glyph as shown in table 1 on page 1 in document [N3988](#);

- f. 037F GREEK CAPITAL LETTER YOT in the Greek and Coptic block, with its glyph from page 2, and proposed annotations for 03F3 and 037F, from document [N3997](#);
- g. 191D LIMBU LETTER GYAN (with an annotation that it is equivalent of JNYA), and 191E LIMBU LETTER TRA, in the Limbu block, with their glyphs as shown on page 1 in document [N3975](#);
- h. 0978 DEVANAGARI LETTER MARWARI LETTER DDA, in the Devanagari block with its glyph as shown on page 1 of document [N3970](#);
- i. A698 CYRILLIC CAPITAL LETTER DOUBLE O, A699 CYRILLIC SMALL LETTER DOUBLE O, A69A CYRILLIC CAPITAL LETTER CROSSED O, and, A69B CYRILLIC SMALL LETTER CROSSED O, in the Cyrillic Extended-B block, with their glyphs as shown on page 2 in document [N3974](#);
- j. 1F641 SLIGHTLY FROWNING FACE, and, 1F642 SLIGHTLY SMILING FACE, in the Emoticons block, with their glyphs and annotations as shown on page 1 in document [N3982](#);
- k. 2E40 DOUBLE HYPHEN in the Supplemental Punctuation block, with its glyph as shown on page 1 in document [N3983](#), including a cross reference to 30A0; also add a cross reference from 30A0 to 2E40;
- l. 08AD ARABIC LETTER LOW ALEF
08AE ARABIC LETTER DAL WITH THREE DOTS BELOW
08AF ARABIC LETTER SAD WITH THREE DOTS BELOW
08B0 ARABIC LETTER GAF WITH INVERTED STROKE
08B1 ARABIC LETTER STRAIGHT WAW
in the Arabic Extended-A block, with their glyphs and annotations as shown in the Table on page 1 in document [N4072](#);
- m. 1031F OLD ITALIC LETTER ESS, in the Old Italic block, with its glyph as shown on page 3 in document [N4046](#);
- n. FE27 COMBINING LIGATURE LEFT HALF BELOW
FE28 COMBINING LIGATURE RIGHT HALF BELOW
FE29 COMBINING TILDE LEFT HALF BELOW
FE2A COMBINING TILDE RIGHT HALF BELOW, and
FE2B COMBINING CONJOINING MACRON BELOW
in the Combining Half Marks block, with their glyphs as shown on page 2 in document [N4078](#).

11.16 Teuthonista phonetic characters

Input documents:

- [4031](#) Proposal to encode “Teuthonista” phonetic characters in the UCS; Lehrstuhl für Deutsche Sprachwissenschaft der Universität Passau, & Institut für Österreichische Dialekt- und Namenlexika der Österreichischen Akademie der Wissenschaften; Authors Michael Everson, Eveline Wandl-Vogt, Alois Dicklberger; 2011-05-09
- [4081](#) Revised proposal to encode “Teuthonista” phonetic characters in the UCS; Lehrstuhl für Deutsche Sprachwissenschaft der Universität Passau, & Institut für Österreichische Dialekt- und Namenlexika der Österreichischen Akademie der Wissenschaften; Authors: Michael Everson, Alois Dicklberger, Karl Pentzlin, Eveline Wandl-Vogt; 2011-06-02
- [4082](#) Support for “Teuthonista” encoding proposal; Lehrstuhl für Deutsche Sprachwissenschaft der Universität Passau, & Institut für Österreichische Dialekt- und Namenlexika der Österreichischen Akademie der Wissenschaften; 2011-05-27
- [4085](#) Further proposed additions to ISO/IEC 10646 and comments to other proposals; German NB; 2011-05-25

Output document:

- [4106](#) Teuthonista ad hoc report; 2011-06-09

Ad hoc report N4106.

Mr. Karl Pentzlin: The ad hoc on Teuthonista discussed several issues. The Teuthonista characters are used for transcribing several dialects etc. See original contributions for background material. This was discussed in an ad hoc. The stacking issue was discussed. Missing combining characters were also discussed. There will be separate combining marks for parenthesized characters.

We have arrived at a table of characters for encoding in Latin extended D and extension E. There are about 40 characters; see the ad hoc report in document [N4106](#); the charts and nameslist are attached to it.

Discussion:

- a. Dr. Ken Whistler: Items 1 through 9 represent the technical conclusions of the ad hoc on the issues considered by the ad hoc. It is for information for those who may be interested in how the agreements were arrived at.
- b. Mr. Peter Constable: In section 6, has the name for 'open mark below' been fixed? (Yes.)

Disposition:

Accept proposed 85 characters for next amendment, as recommended by the ad hoc in document [N4106](#). See relevant resolution **M58.19** below.

Relevant Resolution:

M58.19 (Teuthonista phonetic characters): WG2 accepts the recommendation in the ad hoc report on Teuthonista phonetic characters (document [N4106](#)), and accepts to encode in the standard **85** characters as follows:

- a. create new block named Combining Diacritical Marks Extended in the range 1AB0 to 1AFF, and populate it with 15 characters in the code positions 1AB0 to 1ABE,
 - b. 14 combining characters 1DE7 to 1DF4 in Combining Diacritical Marks Supplement block,
 - c. 8 characters in the range A798 to A79F in Latin Extended-D block, and,
 - d. create new block named Latin Extended-E in the range AB30 to ABBF, and populate with 48 characters AB30 to AB5F,
- with their glyphs and character names as shown in pages 4 to 11 in document [N4106](#).

11.17 SignWriting script

Input documents:

- [4015](#) Preliminary proposal for encoding the SignWriting script in the SMP of the UCS; Michael Everson; 2011-04-06
- [4090](#) Proposal for encoding the SignWriting script in the SMP of the UCS; Michael Everson, Stephen Slevinski, and Valerie Sutton; 2011-08-05

Mr. Michael Everson: Document [N4090](#) replaces the earlier document [N4015](#). SignWriting was developed by Ms. Valerie Sutton for deaf people in Denmark. It is iconic, and is used for Sign languages. It is used in several communities - some large and some small. Considerable amount of literature exists; notably the Gospels of Matthew, Mark, and John. People in SIL have been working with many communities worldwide. The sign writing and language connections are better handled in implementations. It has been under development for 34 years. Several implementations exist – DOS to start with, various plug-ins of different kinds. In 2004 they tried to stabilize the set of symbols - the hand shapes. In 2008 they stabilized a set of about 600 graphic characters (672). There are 672 proposed in this document. There are also variations of placing these in two dimensions organizing these. However, that aspect of these symbols is not proposed here. They may require possibly some control characters. Current implementations use the PUA. They would like to interchange using UCS instead of the PUA. One of the features of the proposal ... similar to Miao Vowels ... is to use fill. The fills are handled by having base character plus a fill control character. In terms of rotation there is another control character indicating the amount of rotation. Either one of these controls may be absent. They have different use with the round faces. Based on feedback from experts in UTC, a comprehensive list of the possible 58000 combinations has been prepared; not all the combinations are used. A .txt file is made available containing these indicating which combinations are in use. 37000+ characters are valid. The set of proposed characters is sufficient for all known SgnWriting languages implemented. Section 6 talks about SignWriting Markup Language SWML. An example of Hello World from Stephen Slevinski in American Sign Language is shown on page 6. Examples are shown. Vertical writing is used.

Discussion:

- a. Mr. Peter Constable: The key thing to understand is that the proposal has the graphic elements in the example, but not the layout oriented aspects. The implementers have not decided as to how the layouts with UCS encoded characters may be handled.
- b. Dr. Deborah Anderson: There is a considerable amount of work done since the first draft. Since this is the first time in WG 2 and is quite a large set and is complicated, the U.S. will feel more comfortable if this is sent out for review.
- c. Mr. Masahiro Sekiguchi: For users of Sign languages in Japan questions have come up from Japan. A list of several languages is listed including Japanese Sign language.
- d. Mr. Michael Everson: There is a website which shows where these are listed.

- e. Mr. Masahiro Sekiguchi: I Googled and found that the SignWriting seems to be biased more towards the Western languages and are not used in Japanese pages.
- f. Mr. Michael Everson: There are people in the rest of the world also who are not in favor of sign writing languages, but there are also others who are enthusiastic about using them. For example there are about 150 entries for Japanese.
- g. Mr. Masahiro Sekiguchi: Are there any other references of use?
- h. Mr. Michael Everson: Only implementers of the SignWriting can be pointed to via the URLs. There are users of these in Ireland also. The whole deaf feature is politically loaded too.
- i. Mr. Peter Constable: In some spaces, writing a sign language in any form is controversial. By encoding these, it is not a statement that these characters should be used for any SignWriting language. It would be interesting to understand the perception that it is Western oriented in Japanese context. It may or may not have a bearing in the proposed set. In a way, it is similar to Korean - a number of elements placed in a box in a specific way.

Action item:

National bodies to review and feedback.

11.18 Carried forward for future meeting(s):

The following documents were on the agenda but were not discussed at this meeting and are carried forward:

- [3288](#) Old Yi; China NB; 2008-04-22
- [3598](#) Proposal for encoding Nüshu In the SMP – 2nd Revision; China NB; 2009-03-18
- [3667](#) Proposal to encode the Pahawh Hmong script in the UCS; UC Berkeley Script Encoding Initiative; 2009-09-14
- [3695](#) Proposal to Encode Obsolete Simplified Chinese Characters; Andrew West; 2009-10-01
- [3705](#) Comments and Questions on [N3598](#) – Nushu script; Orié Endo via Yoshiki MIKAMI; 2009-09-05
- [3719](#) A quick response on N3705 – comments and questions on Nushu (N3598); China NB; 2009-10-26
- [3721](#) Request that WG2 [N3695](#) (Proposal to encode obsolete Simplified Chinese characters) to be discussed in IRG; TCA, China; 2009-10-29
- [3762](#) Preliminary proposal for encoding the Kpelle script in the SMP of the UCS; UC Berkeley SEI: Michael Everson & Charles Riley; 2010-02-23
- [3768](#) Preliminary Proposal to Encode the Landa Script in ISO/IEC 10646; Anshuman Pandey; 2010-04-16
- [3811](#) Preliminary Proposal to encode the Tolong Siki script; Anshuman Pandey; 2010-04-08
- [3841](#) Preliminary proposals for the Gondi scripts; Anshuman Pandey; 2010-05-20
- [3842](#) Preliminary proposals for the Balti scripts; Anshuman Pandey; 2010-07-13
- [3848](#) A preliminary proposal for the Dhives Akuru script; Anshuman Pandey; 2010-06-30
- [3863](#) Proposal for encoding the Mende script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project) – Everson; 2010-07-28
- [3864](#) Introducing the Zou Script; Anshuman Pandey: Individual Contribution; 2010-09-29
- [3874](#) Preliminary Code Chart and Names List for the Pyu Script; Anshuman Pandey; 2010-08-05
- [3913](#) Proposal to add Metrical Symbols to the UCS; Abteilung für Griechische und Lateinische Philologie der Ludwig-Maximilians, Universität München (Department of Greek and Latin Philology, Ludwig-Maximilians-University of Munich, Germany); Authors: Martin Schrage, Karl Pentzlin; 2010-09-24
- [3928](#) Preliminary Proposal to add the Ahom Script in the SMP of the UCS; Martin Hosken, Stephen Morey; 2010-09-17
- [3959](#) Proposal to Encode the Gangga Malayu Script in ISO/IEC 10646; SEI - Anshuman Pandey; 2011-05-02
- [3961](#) Introducing the Logographic Script of Pau Cin Hau; Anshuman Pandey; 2010-10-27
- [3962](#) Preliminary Proposal to Encode the Jenticha Script in ISO/IEC 10646; Anshuman Pandey; 2011-01-25
- [3963](#) Preliminary Proposal to Encode the Tikamuli Script in ISO/IEC 10646; Anshuman Pandey; 2011-01-25
- [3972](#) Preliminary proposal for encoding the Afaka script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project) - Everson; 2010-12-21
- [3977](#) Preliminary proposal for encoding the Woleai script in the SMP of the UCS; SEI – Everson; 2011-01-27
- [3980](#) Proposal to encode a Subscript Solidus in the UCS; German NB: Karl Pentzlin; 2011-01-17
- [3981](#) Revised Proposal to encode characters for the English Phonotypic Alphabet (EPA) in the UCS; German NB: Karl Pentzlin; 2011-01-18
- [3986](#) Determining the Encoding Model for Soyombo Vowels; Anshuman Pandey; 2011-02-05
- [3999](#) Proposal for encoding the Khazarian Rovas script in the SMP of the UCS; Hungarian National Body - Gábor Hosszú; 2011-05-19
- [4006](#) Proposal for encoding the Carpathian Basin Rovas script in the SMP of the UCS; Hungarian National Body - Gábor Hosszú; 2011-05-19

- [4011](#) Proposal to add heraldic hatching characters to the UCS; Michael Everson; 2011-04-01
- [4012](#) Proposal to encode additional playing card characters in the UCS; Michael Everson and Karl Pentzlin; 2011-04-01
- [4016](#) Preliminary Proposal to Encode the Balti ‘B’ Script in ISO/IEC 10646; Script Encoding Initiative (SEI), Anshuman Pandey; 2011-04-13
- [4018](#) Introducing the Khambu Rai Script; Anshuman Pandey; 2011-04-13
- [4019](#) Introducing the Khema Script for Writing Gurung; Anshuman Pandey; 2011-04-13
- [4025](#) Preliminary proposal for encoding the Tulu script in the SMP of the UCS; UC Berkeley Script Encoding Initiative, Michael Everson; 2011-04-22
- [4026](#) Revised Preliminary Proposal to Encode Soyombo in the UCS; Script Encoding Initiative (SEI) - Anshuman Pandey; 2011-04-25
- [4027](#) Preliminary Proposal to Encode the Multani Script in ISO/IEC 10646; Anshuman Pandey; 2011-04-26
- [4028](#) Proposal to Encode the Jenticha Script in ISO/IEC 10646; Anshuman Pandey; 2011-05-31
- [4030](#) Proposal for the addition of six Latin characters to the UCS; Michael Everson; 2011-05-04
- [4032](#) Proposal to encode the Marchen script; Andrew West; 2011-04-30
- [4033](#) Report on Tangut Encoding; Andrew West; 2011-05-22
- [4033A](#) Report on Tangut Encoding - Appendix A; Andrew West; 2011-05-22
- [4033B](#) Report on Tangut Encoding - Appendix B (very large file); Andrew West; 2011-05-22
- [4034](#) Proposal to Encode the Modi Script; Anshuman Pandey; 2011-10-21
- [4036](#) Introducing the Magar Akkha Script; Anshuman Pandey; 2011-05-01
- [4037](#) Introducing the Kirat Rai Script; Anshuman Pandey; 2011-05-01
- [4038](#) Preliminary Proposal to Encode the Prachalit Nepal Script; SEI - Anshuman Pandey; 2011-05-03
- [4039](#) Preliminary proposal for encoding the Caucasian Albanian script; Michael Everson and Jost Gippert; 2011-05-02
- [4040](#) Proposal for encoding the Psalter Pahlavi script; SEI - Michael Everson & Roozbeh Pournader; 2011-05-06
- [4041](#) Preliminary Proposal to Encode the Mongolian Square Script; Anshuman Pandey; 2011-05-03
- [4044](#) Introducing the Wolof Alphabet of Assane Faye; Anshuman Pandey; 2011-05-09
- [4047](#) Comments on N3913 Proposal to encode Metrical Symbols and related characters; U.S. NB, UTC, and SEI (UC Berkeley); 2011-05-12
- [4059](#) Comments on Revised Proposal to encode characters for the English Phonotypic Alphabet (WG2 N3981); USNB; 2011-05-13
- [4073](#) Revised proposal to encode Metrical Symbols and related characters; Abteilung für Griechische und Lateinische Philologie der Ludwig-Maximilians-Universität München (Department of Greek and Latin Philology, Ludwig-Maximilians-University of Munich, Germany) Authors: Martin Schrage, Karl Pentzlin; 2011-05-21
- [4074](#) Revised proposal to encode Metrical Symbols and related characters – duplicate of 4073; Abteilung für Griechische und Lateinische Philologie der Ludwig-Maximilians-Universität München (Department of Greek and Latin Philology, Ludwig-Maximilians-University of Munich, Germany) Authors: Martin Schrage, Karl Pentzlin; 2011-05-21
- [4077](#) Sources for the Encoding of Jurchen; UK NB; 2011-05-24
- [4079](#) Second Revised Proposal to encode characters for the English Phonotypic Alphabet (EPA); German NB; 2011-05-23
- [4083](#) Tangut chart to supplement 4033 “Report on Tangut Encoding”; Michael Everson & Andrew West; 2011-05-26
- [4089](#) Proposal to encode disunify playing card and tarot card characters in the UCS; Michael Everson & Karl Pentzlin; 2011-05-31
- [4094](#) Comments on Tangut 4033; Richard Cook and Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2011-06-01

12 Architecture issues

12.1 Syntax for Unicode/UCS Sequence Identifiers (USI)

Input document:

- [4063](#) Proposal to Update Syntax for Unicode/UCS Sequence Identifiers (USI); USNB – Ken Whistler; 2011-05-11

Dr. Ken Whistler: Document [N4063](#) contains a proposal to modify clause 6.6, to extend the current format for USI-s to recognize the formats used in Unicode data files. Then the data files for USIs can be maintained in a common format between Unicode and ISO/IEC 10646, simplifying the maintenance of the files. The document quotes the current wording of clause 6.6 and provides suggested text for 6.6 to recognize the additional format. It also proposes the formats in Backus-Naur form. It also shows some

examples of how a USI can be shown in the different formats. The BNF provides for other possibilities also. If WG 2 agrees to the suggestions, then there is also proposed text to modify clause 25. Current text and proposed new text for clause 25 are also given in the document. This will permit recognizing the widely used format for the USI data file in a conformant way for both ISO/IEC 10646 and Unicode standards.

Discussion:

- a. Mr. Masahiro Sekiguchi: I have three comments. First is on the proposal to change the syntax. In general I don't like the idea of permitting multiple formats for the same item. USI is an identifier in some sense. Based on that, I don't want to change the USI format as proposed. On the synchronization issue between Unicode and ISO/IEC 10646 for USI data file, I do support that both should have the same format. In this particular case, we suggested that we use the ISO/IEC 10646 format. It is unfortunate that Unicode decided to use a different format after participating in WG 2. Japan had commented on that earlier. I had some off-line discussion on this topic during this week. I understand that Unicode consortium has already published the USI data file in the format defined in the Unicode standard, which is the older format. Japan would be agreeable to changing the format of the ISO/IEC 10646 USI data file back to the previous format. If we do so, the USI data file can have a note in it stating that the format used is not the format defined in ISO/IEC 10646.
- b. Dr. Ken Whistler: I am fine with that we would revert to the file format for NUSI.txt to be in synch with the format used by Unicode. It is a good step forward if we can agree on that. Regarding the USI format definition, there are problems with your characterization. The USI is based on UID. UID has multiple formats permitted in the standard already. The illustration in clause 6.6 shows the comma and space. It does not match the BNF, where the space is optional (zero or more). The text of clause 6.6 is inconsistent as it stands; the brackets are the only missing items. Other than the brackets, it already allows for different formats of UID-s with separators. So, I disagree with your characterization of clause 6.6 being a single format. I believe that what I have proposed in the document, by expanding the format to recognize omitting the brackets, will permit recognizing the widely used formats also.
- c. Mr. Peter Constable: The Unicode consortium has published for NUSI.txt, the format in use since 2005.
- d. Mr. Masahiro Sekiguchi: Dr. Ken Whistler is right in that we already permit multiple formats. The only thing is expanding the bracket and comma omission as modification is being suggested. My preference is a single format, and hence my preference is not to permit expansion of the format in the standard. If we discuss the variations for UID itself, it would be a shame that we permit so many variations in the standard.
- e. Mr. Mike Ksar: You already stated that we don't have a single format today. Does it hurt anyone by expanding and recognizing the widely used formats for NUSI.txt?
- f. Mr. Masahiro Sekiguchi: For those implementers who use the NUSI.txt currently, it is clear that existing format should be kept. For new implementers of NUSI, it is preferable to keep a single format. If we say that the bracket is optional, comma is optional etc. then the implementers have to cater for possible options.
- g. Dr. Ken Whistler: I think that we still need to revert to the previous format. There is inconsistency in the standard. If we don't broaden the formats, the normative text in clause 25 is problematic. We have to permit the format to recognize that it is a sequence of code points (that identify the characters in the sequence).
- h. Mr. Masahiro Sekiguchi: The original intent of Japanese proposal was to address the inconsistency. We have a definition of USI, we have a definition of NUSI and we have a definition of file format. These are not consistent with each other. I believe that the file format is the one that needs to be adjusted. In practice I agree it is better to keep the old file format. If we keep the old file format the definitions for NUSI, USI etc. will need adjusting. NUSI.txt is just the data file that contains the Named USI-s. For the purpose of the standard, a USI has the brackets, commas etc.

- i. Mr. Peter Constable: One of the concerns with extending the variation for the syntax for NUSI, is that if someone has an implementation in place, they will need to expand that to accommodate the extensions. We could state in clause 6.6 that in some application contexts the definition may be constrained. If we decide to make the brackets optional, one could constraint the exercise of optionality.
- j. Dr. Ken Whistler: Part of the problem with the position you are taking is that it requires a normative change to the definition of NUSI in the standard, to permit a different format in the NUSI.txt data file. You are just transferring where the definition has to be moved to. I prefer to update in such a way that the current definition of NUSI will be still valid. In my opinion, the standards that we are maintaining such as ISO/IEC 10646, would function best when they actually match the practice that people actually want to standardize. If the standard definition does not match actual practice, and can be expanded to match the wide spread practice, then the interoperability practice and standard will be in synch. The standard will now be such that it will not force the change in the widespread practice for interoperability.
- k. Mr. Masahiro Sekiguchi: As a general statement I have no objection to your statement of the second part. I know Unicode consortium is using the proposed format. I am not aware of any other group using that. As a standard setting body it has defined a format. In this case, having old format for NUSI.txt and current definitions of NUSI in the standard is a problem. My proposal is to change the file format of NUSI rather than changing the standard definition. Your statement does not make sense.
- l. Dr. Umamaheswaran: Am I to understand that we can change the NUSI.txt file to match with the NUSI.txt file format used by Unicode, just by adding a suitable note that the format in the data file is different from the format defined for NUSI in the standard. There are two separate issues - the file format and then the definition in clause 25 for the NUSI.txt file.
- m. Mr. Masahiro Sekiguchi: I think just changing the format to be used in the NUSI.txt file alone would work.
- n. Dr. Ken Whistler: It will require a note in clause 25 to indicate the difference. Document [N4114](#) contains the proposed text for clause 25. It describes the format to be used in the NUSI.txt file. The text is proposed after consultation with Mr. Masahiro Sekiguchi and other interested experts.
- o. Mr. Masahiro Sekiguchi: The proposed text is good.

Disposition:

Accept the proposed text for clause 25 in Amendment 1. The NUSI.txt file will be prepared following the proposed format. See relevant resolution **M58.09** below.

Relevant Resolution:

M58.09 (Format of NUSI.txt file): WG2 accepts the proposed change to clause 25 describing the format used for NUSI.txt data file, detailed in document [N4114](#), and to change the data in NUSI.txt file to follow this new format. This change will allow the NUSI.txt files in ISO/IEC 10646 and the Unicode Standard to be identical.

13 Other business

13.1 Web Site Review

Mr. Mike Ksar: DKUUG has been our host, since 1993. Some agreements may have to be signed if they send it to me. The main page will be updated. I would like to thank them for their continued support to us.

See relevant resolution **M58.33** below.

Relevant Resolution:

M58.33 (Appreciation to DKUUG for web site support): WG2 thanks DKUUG and its staff for its continued support of the web site for WG2 document distribution and the e-mail server.

13.2 Future Meetings

13.2.1 Meeting 59 – 2012-03-19/23, Mountain View, CA, USA - Microsoft campus

Discussion:

- a. Mr. Michel Suignard: The WG 2 meetings were spread apart assuming we will be issuing a DAM1 ballot which takes a longer ballot period, and it is a heavier process. SC 2 secretariat is much

more responsive - very fast. ITTF has not been so fast. We do not have a DAM to issue. The PDAM ballot can be as short as 2 months. The work on the PDAM should be completed by end of this year. I would like to move M59 to earlier and allow more time between M59 and M60 to accommodate DAM ballot. Chinese New Year is Jan 23, 2012.

- b. Dr. Umamaheswaran: I suggest that we have the WG 2 to meet the week following the UTC meeting.
- c. Dr. Deborah Anderson: The UTC meets January 31 to February 3 in 2012.

Disposition:

Change meeting M59 to Feb 6 to 10 of 2012; (along with OWG-SORT); Host will be the U.S. national body; in Mountain View, CA; Microsoft campus. (This date was moved further by one week since the UTC meeting was moved to the week of February 6, 2012.) See relevant resolution **M58.32** below.

Relevant Resolution:

M58.32 (Future meetings): WG2 endorses the following schedule for future meetings of WG2 and of IRG:

WG2 meetings:

Meeting 59 - 2012-02-13/17, Microsoft Campus, Mountain View, CA, USA

Meeting 60 - 2012-10-22/26, Chiang Mai, Thailand (pending confirmation); Berlin, Germany (as backup, pending confirmation)

Meeting 61 - 2nd Quarter 2013, Berlin, Germany (pending confirmation); (Looking for backup host)

IRG meetings:

IRG Meeting 38, Gyeongju, Korea, 2012-06-18/22

IRG Meeting 39, Hong Kong S.A.R., 2012-11-12/16

13.2.2 Meeting 60 – 4th Quarter 2012, Germany (pending confirmation), Thailand (Backup)

Discussion:

- a. Mr. Michael Everson: Thailand is the backup. If it is in November, it is an ideal time to visit Thailand. Mr. Martin Hosken cannot guarantee an invitation right now.
- b. Mr. Michel Suignard: An 8 month window would be fine.
- c. Mr. Masahiro Sekiguchi: We would like to know if the national body of Thailand will be the host to issue an invitation.
- d. Mr. Michael Everson: Martin Hosken is our contact and he has verbal agreement with TIS; he will confirm later.

Disposition:

Meeting 60 is scheduled for October 22-26 2012; along with SC 2 plenary & OWG-SORT; Chiang Mai, Thailand (pending confirmation); Berlin, Germany (backup). See relevant resolution **M58.32** above.

13.2.3 Meeting 61 – 2nd Quarter 2013 – Looking for host

Berlin, Germany (pending confirmation); looking for backup

See relevant resolution **M58.32** above.

14 Closing

14.1 Approval of Resolutions of Meeting 58

Output document:

[4104](#) Meeting 58 Resolutions; WG2; 2011-06-10

Draft resolutions prepared by the recording secretary Dr. V.S. Umamaheswaran with assistance from the drafting committee were reviewed. Some of the draft resolutions were adjusted to clarify or fix errors before adoption. The final adopted resolutions are in document [N4104](#).

Appreciation:

Relevant Resolution:

M58.34 (Appreciation to Host): WG2 thanks the national body of Finland, Finnish Standards Association (SFS) and its staff, in particular Ms. Hillevi Vuori, Ms. Sari Lamminaho, Ms. Susanna Vahtila, for hosting the meeting and providing excellent meeting facilities, and to CSC – IT Center for Science and its staff, in particular Mr. Tero Aalto, Mr. Ville Savolainen, for their kind hospitality.

14.2 Adjournment

The meeting was adjourned at 11:35h on Friday 2011-06-10.

15 Action items

All the action items recorded in the minutes of the previous meetings from 25 to 51, and, 53 to 55 have been either completed or dropped. Status of outstanding action items from previous meetings 52, 56, 57 and new action items from the last meeting 58 are listed in the tables below.

- Meeting 25, 1994-04-18/22, Antalya, Turkey (document N1033)
- Meeting 26, 1994-10-10/14, San Francisco, CA, USA (document N1117)
- Meeting 27, 1995-04-03/07, Geneva, Switzerland (document N1203)
- Meeting 28, 1995-06-22/26, Helsinki, Finland (document N1253)
- Meeting 29, 1995-11-06/10, Tokyo, Japan (document N1303)
- Meeting 30, 1996-04-22/26, Copenhagen, Denmark (document N1353)
- Meeting 31, 1996-08-12/16, Québec City, Canada (document N1453)
- Meeting 32, 1997-01-20/24, Singapore (document N1503)
- Meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document N1603)
- Meeting 34, 1998-03-16/20, Redmond, WA, USA (document N1703)
- Meeting 35, 1998-09-21/25, London, UK (document N1903)
- Meeting 36, 1999-03-09/15, Fukuoka, Japan (document N2003)
- Meeting 37, 1999-09-17/21, Copenhagen, Denmark (document N2103)
- Meeting 38, 2000-07-18/21, Beijing, China (document N2203)
- Meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece (document N2253)
- Meeting 40, 2001-04-02/05, Mountain View, CA, USA (document N2353), and
- Meeting 41, 2001-10-15/18, Singapore (document 2403)
- Meeting 42, 2002-05-20/23, Dublin, Ireland (document N2453)
- Meeting 43, 2003-12-09/12, Tokyo, Japan (document N2553)
- Meeting 44, 2003-10-20/23, Mountain View, CA, USA (document N2653)
- Meeting 45, 2004-06-21/24, Markham, Ontario, Canada (document N2753)
- Meeting 46, 2005-01-24/28, Xiamen, China (document N2903)
- Meeting 47, 2005-09-12/15, Sophia Antipolis, France (document N2953)
- Meeting 48, 2006-04-24/27, Mountain View, CA, USA (document N3103)
- Meeting 49, 2006-09-25/29, Tokyo, Japan (document N3153)
- Meeting 50, 2007-04-23/27, Frankfurt-Am-Main, Germany (document N3253)
- Meeting 51, 2007-09-17/21, Hangzhou, China (document N3353)
- Meeting 52, 2008-04-21/25, Redmond, WA, USA (document N3453)
- Meeting 53, 2008-10-13/17, Hong Kong SAR (document N3553)
- Meeting 54, 2009-04-20/24, Dublin, Ireland (document N3603)
- Meeting 55, 2009-10-26/30, Tokyo, Japan (document N3703)
- Meeting 56, 2010-04-19/23, San José, CA, USA (document N3803)
- Meeting 57, 2010-10-04/08, Busan, Korea (Republic of) (document N3903)
- Meeting 58, 2011-06-06/10, Helsinki, Finland (document N4103) (this document)

15.1 Outstanding action items from meeting 52, 2008-04-21/25, Redmond, WA, USA

Item	Assigned to / action (Reference resolutions in document N3454, and unconfirmed minutes in document N3453 for meeting 52 - with any corrections noted in section 3 in the minutes of meeting 53 in document N3553)	Status
AI-52-7	Ireland (Mr. Michael Everson)	
	To take note of and act upon the following items.	
a.	M52.5 (<i>Principles for Dandas</i>): WG2 adopts the principles guiding the encoding of Dandas in Brahmic scripts from document N3457, and instructs its ad hoc group on P&P to incorporate these into its document on Principles and Procedures (along with the additions from resolution M52.4 above). WG2 further invites the Irish national body to investigate and report on the current practice on use of currently encoded Dandas in relevant scripts towards finalizing the list of scripts and their corresponding Dandas. (Mr. Michael Everson indicated he will provide some text to include in the P&P document at meeting 58.) M53, M54 M55, M56, M57 and M58 – in progress.	

15.2 Outstanding action items from meeting 56, San Jose, CA, USA, 2010-04-19/23

Item	Assigned to / action (Reference resolutions in document N3804, and unconfirmed minutes in document N3803 for meeting 56 – with any corrections noted in section 3 in the minutes of meeting 57 in document N3903)	Status
AI-56-12	All national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
	<p>b. (Authors of the document are from several national bodies) M56.18 (<i>Jurchen script</i>): WG2 invites the authors of the proposal to encode Jurchen script in document N3788 to further revise the document based on feedback in document N3817, discussion at meeting 56, and in consultation with other Jurchen experts. M57 and M58 – in progress.</p>	

15.3 Outstanding action items from meeting 57, Busan, Korea (Republic of), 2010-10-04/10

Item	Assigned to / action (Reference resolutions in document N3904, and unconfirmed minutes in document N3903 for meeting 57 – with any corrections noted in section 3 in the minutes of meeting 58 in document N4103)	Status
AI-57-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
	<p>a. M57.02 (Miscellaneous character additions): WG2 accepts the following characters for encoding in the standard: ... h. CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source reference UTC-00867, and with its glyph as shown in document N3885. The IRG convener is to take note of this addition and remove it from the IRG's collection for future extension. ... M58 – in progress.</p>	
AI-57-7	Ireland (Mr. Michael Everson)	
	<p>d. is invited to make contributions on proposed changes or improvement to charts, for feedback from national bodies and liaison organizations, prior to bringing them up as ballot comments. M58 – in progress.</p>	
AI-57-8	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
	<p>b. M57.27 (Khitan): With reference to documents N3918 and N3925 on Khitan, WG2 endorses the ad hoc report in document N3942, and invites China to submit a revised proposal addressing the feedback received to date. M58 – in progress.</p>	
	<p>c. M57.28 (Chinese Chess symbols): With reference to document N3910 on Chinese Chess Symbols, WG2 invites China to submit a revised proposal addressing the feedback received during meeting M57 and any further national body feedback received prior to WG2 meeting M58. M58 – in progress.</p>	
AI-57-9	Norway (via Messrs. Karl Pentzlin and Michael Everson)	
	<p>a. Is invited, with reference to the disposition of its ballot comment T2 on CD 10646 3rd edition in document N3936, to submit a separate contribution proposing new characters addressing the issue of removing the annotation on U+041A LATIN CAPITAL LETTER ENG, including addressing any data that may be broken. M58 – in progress.</p>	

15.4 New action items from meeting 58, Helsinki, Finland, 2011-06-06/10

Item	Assigned to / action (Reference resolutions in document N4104, and unconfirmed minutes in document N4103 for meeting 58 (this document you are reading)).	Status
AI-58-1	Recording Secretary - Dr. V.S. UMaaheswaran	
	<p>a. To finalize the document N3904 containing the adopted meeting resolutions and send it to the convener as soon as possible.</p>	Completed; see document N4104.
	<p>b. To finalize the document N3903 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.</p>	Completed; see document N4103.

AI-58-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items:	
a.	<i>M58.26 (Roadmap snapshot):</i> WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N4056) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
b.	<i>M58.28 (Request for encoding symbols from SC35):</i> With reference to requests from SC35 in document N3897, WG2 requests SC35 to provide more information on the use of these symbols in plain text, addressing the feedback in document N3996. SC35 is also asked to include a Proposal Summary Form on any proposal submitted to SC2.	Completed.
c.	<i>M58.25 (Normatively referenced Unicode Technical Reports):</i> Considering the concerns expressed in the document N4092, WG 2 requests SC2 to adopt the following resolution and communicate the same to the Unicode Consortium. Considering the concerns expressed in the document JTC1/SC2/WG2 N4092, SC2 requests the Unicode Consortium to accept the following: <ul style="list-style-type: none"> a. When the Unicode Consortium proposes to update any Unicode Technical Report that is normatively referenced by ISO/IEC 10646, the Unicode Consortium is asked to submit a notification of the planned update and/or the draft update text to SC 2, before the Consortium officially approves the update; b. The Unicode Consortium will consider all feedback on such a planned update received as liaison contributions from SC 2, and expressing the opinions of SC 2 and/or its participating national body members regarding a planned update; and c. In the event that the Unicode Consortium and SC 2 have different opinions on details of such an update, the Consortium will give full consideration to the SC 2 opinions and make its best effort to collaborate with SC 2 to reach a consensus. 	Completed.
d.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list under AI-58-11 - items a to e - below.)	
AI-58-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
	To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a.	<i>M58.01 (Moving of characters from 3rd edition to Amendment 1):</i> WG2 accepts moving the following character out of the 3 rd edition and including it in Amendment 1 to the 3 rd edition of the standard: <ul style="list-style-type: none"> - A78F LATIN LETTER MIDDLE DOT (with a changed name from LATIN LETTER GLOTTAL DOT). 	Completed – items a to g, see FDIS 3 rd ed. – document SC2/N4211.
b.	<i>M58.02 (Deleting 2 Batak characters from 3rd edition):</i> WG2 accepts deleting the two Batak characters from the 3 rd edition -- 1BFA BATAK SYMBOL BINDU GODANG, and 1BFB BATAK SYMBOL BINDU PINARJOLMA, pending more evidence for their usage in plain text.	
c.	<i>M58.03 (Correction of G-sources in CJK main block):</i> WG2 accepts the following corrections to G-sources in the CJK Unified Ideographs main block: <ul style="list-style-type: none"> - replace the G source reference for 5655 in the CJK main block with HYD 10685.050 - remove the G source reference for 58ED in the CJK main block 	
d.	<i>M58.04 (Correction of glyphs):</i> WG2 accepts changing the representative glyphs for: <ul style="list-style-type: none"> - 2D7F TIFINAGH CONSONANT JOINER to that shown in document N4069; - Adjustments to several glyphs arising from ad hoc report on Wingdings and Webdings as described in document N4115. 	
e.	<i>M58.05 (New source identifiers for orphaned CJK ideographs):</i> WG2 accepts the proposal for new source references of the form UCI-xxxxx, per document N4111, and requests the Unicode Consortium to update Unicode Technical Report #45, assigning UCI source labels for all the ideographs which have no other source reference in ISO/IEC 10646, coordinating with the project editor. Three CJK Unified Ideograph	

	Extension C characters --- 2AD12, 2B089, and 2B08F (per item 5 in document N4021 from IRG) are also to be given UCI source labels. The project editor is instructed to add appropriate text to the standard.	
f.	<p><i>M58.06 (Disposition of ballot comments of FCD 3rd edition):</i> WG2 accepts the disposition of 3rd edition FCD ballot comments in document N4098. The following significant changes are noted:</p> <ul style="list-style-type: none"> - marking 288 "Multilingual Latin Subset" to be a fixed collection; - deleting 33 characters - 109C0 through 109F0 – Meroitic fractions and numbers, pending more satisfactory evidence for including them; - fixing erroneous glyph for 2AAC9 (an ideograph in the CJK Extension C set); - removing "GB 12052-90" and "GB 15564-1995" from the Sub-clause 'S.1.6, G-Source'; - addition of the following formal name aliases: 2448 MICR ON US SYMBOL for 2448 OCR DASH, and, 2449 MICR DASH SYMBOL for 2449 OCR CUSTOMER ACCOUNT NUMBER - removal of the following Named UCS Sequence Identifiers: <U+21F3, U+20E2> KEYBOARD SYMBOL SCROLLING, and, <U+2139, U+20E2> KEYBOARD SYMBOL HELP - moving of one character from 3rd edition to Amendment 1 per resolution M58.01 above; - deleting the two Batak characters per resolution M58.02 above; - correction of G-sources of two CJK unified ideographs per resolution M58.03 above; - adding new source references of the form UCI-xxxxx for ideographs which have lost their original source references over the years, per resolution M58.05 above. 	
g.	<p><i>M58.07 (Progression of 3rd edition):</i> WG2 instructs its project editor to prepare and to forward the final text of the 3rd edition, which will include the changes arising from resolutions M58.06 above, along with the final disposition of comments to the SC2 secretariat for an FDIS ballot.</p> <p>WG2 further instructs the IRG to assist the project editor with the review and finalization of the multiple-column charts for CJK Unified Ideographs Extension B.</p> <p>The target revised starting date for FDIS is 2011-11.</p>	
h.	<p><i>M58.08 (Disposition of PDAM1 ballot comments):</i> WG2 accepts the disposition of PDAM1 ballot comments in document N4099. The following significant changes are noted:</p> <ol style="list-style-type: none"> a. renaming 0605 ARABIC COPTIC NUMBER MARK to ARABIC NUMBER MARK ABOVE; b. deletion of 16AF5 BASSA VAH COMMA and moving 16AF6 BASSA VAH FULL STOP up by one position to 16AF5; c. moving 1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN to 058D, and 15F3F LEFT-FACING ARMENIAN ETERNITY SIGN to 058E in the Armenian block, with an annotation for 058E that it maps to AST 34.005: 1997; d. changing the block name and the names of all the characters in the block - 'Coptic Numbers' (102E0-102FF), by inserting the word 'Epact' after the word 'Coptic' in the names; e. changing the block name and the names of all the character in the 'Sindhi' block (112B0-112FF), by replacing 'Sindhi' with 'Khudawadi' in their names. 	Completed – items h to w; see document SC 2 N 4201
i.	<p><i>M58.09 (Format of NUSI.txt file):</i> WG2 accepts the proposed change to clause 25 describing the format used for NUSI.txt data file, detailed in document N4114, and to change the data in NUSI.txt file to follow this new format. This change will allow the NUSI.txt files in ISO/IEC 10646 and the Unicode Standard to be identical.</p>	
j.	<p><i>M58.10 (Tirhuta script):</i> WG2 accepts to create a new block named Tirhuta in the range 11480 to 114DF, and populate it with 82 characters in code positions 11480 to 114C7 and 114D0 to 114D9, with their glyphs and character names as shown on pages 14 and 15 in document N4035. The repertoire includes some combining characters and some two part vowels needing decomposition specification.</p>	
k.	<p><i>M58.11 (Khojki script):</i> WG2 accepts to create a new block named Khojki in the range 11200 to 1124F, and populate it with 61 characters in code positions 11200 to 11211, and 11213 to 1123D, with their glyphs and character names as shown on page 4 in document N3978. The repertoire includes some combining characters.</p>	
l.	<p><i>M58.12 (Elbasan script):</i> WG2 accepts to create a new block named Elbasan in the range 10500 to 1052F, and populate it with 40 characters in code positions 10500 to</p>	

	10527, with their glyphs and character names as shown on pages 19 and 20 in document N3985.	
m.	<i>M58.13 (Nabataean script)</i> : WG2 accepts to create a new block named Nabataean in the range 10880 to 108AF, and populate it with 40 characters in code positions 10880 to 1089E, and 108A7 to 108AF, with their glyphs and character names as shown on page 4 in document N3969.	
n.	<i>M58.14 (Linear A script)</i> : WG2 accepts to create a new block named Linear A in the range 10600 to 1077F, and populate it with 341 characters in code positions 10600 to 10736, 10740 to 10755 and 10760 to 10767, with their glyphs and character names as shown on pages 5 to 11 in document N3973.	
o.	<i>M58.15 (Pau Cin Hau script)</i> : WG2 accepts to create a new block named Pau Cin Hau in the range 11AC0 to 11AFF, and populate it with 57 characters in code positions 11AC0 to 11AF8, with their glyphs and character names as shown in the consolidated charts in document N4107.	
p.	<i>M58.16 (Manichaeae script)</i> : WG2 accepts to create a new block named Manichaeae in the range 10AC0 to 10AFF, and populate it with 51 characters in code positions 10AC0 to 10AE6, and 10AEB to 10AF6, with their glyphs and character names as shown on page 11 in document N4029.	
q.	<i>M58.17 (Lithuanian dialectology characters)</i> : WG2 accepts the recommendation in the ad hoc report on Lithuanian dialectology (document N4116) and accepts to encode in the standard 14 characters in various blocks as follows: a. 8 characters in the Miscellaneous Symbols and Arrows block: 2B4E SHORT NORTH EAST ARROW 2B4F SHORT SOUTH EAST ARROW 2B5A NORTH EAST ARROW WITH HOOKED HEAD 2B5B SOUTH EAST ARROW WITH HOOKED TAIL 2B5C NORTH EAST ARROW WITH HORIZONTAL TAIL 2B5D SOUTH EAST ARROW WITH HORIZONTAL TAIL 2B5E BENT ARROW POINTING DOWNWARDS THEN NORTH EAST 2B5F SHORT BENT ARROW POINTING DOWNWARDS THEN NORTH EAST b. 2 characters in the Supplemental Punctuation block: 2E3D VERTICAL SIX DOTS 2E3E WIGGLY VERTICAL LINE c. 2 character in the Latin Extended-D block: A794 LATIN SMALL LETTER C WITH PALATAL HOOK A795 LATIN SMALL LETTER H WITH PALATAL HOOK, and, d. 2 character additions to the Cyrillic Extended-B block: A69C MODIFIER LETTER CYRILLIC HARD SIGN A69D MODIFIER LETTER CYRILLIC SOFT SIGN The glyphs are as shown in the consolidated charts in document N4107.	
r.	<i>M58.18 (Old Hungarian script)</i> : WG2 accepts the recommendation in the ad hoc report on Hungarian Runic/Szekely-Hungarian Rovas, (document N4110) and accepts to encode in the standard 111 characters as follows: c. 2E41 REVERSED COMMA, and, 2E42 DOUBLE LOW-REVERSED-9 QUOTATION MARK, In the Supplemental Punctuation block, d. create a new block called Old Hungarian in the range 10C80 to 10CFF and populate it with 109 characters in code positions 10C80 to 10CB2, 10CC0 to 10CF2 and 10CF9 to 10CFF. with their glyphs and character names as shown in pages 4 to 7 in document N4110.	
s.	<i>M58.19 (Teuthonista phonetic characters)</i> : WG2 accepts the recommendation in the ad hoc report on Teuthonista phonetic characters (document N4106), and accepts to encode in the standard 85 characters as follows: e. create new block named Combining Diacritical Marks Extended in the range 1AB0 to 1AFF, and populate it with 15 characters in the code positions 1AB0 to 1ABE, f. 14 combining characters 1DE7 to 1DF4 in Combining Diacritical Marks Supplement block, g. 8 characters in the range A798 to A79F in Latin Extended-D block, and, h. create new block named Latin Extended-E in the range AB30 to ABBF, and populate with 48 characters AB30 to AB5F,	

	with their glyphs and character names as shown in pages 4 to 11 in document N4106 .	
t.	<p><i>M58.20 (Duployan Shorthands):</i> WG2 accepts to encode the 148 characters required for Duployan Shorthands and Chinook script as follows:</p> <ol style="list-style-type: none"> 2E3C STENOGRAPHIC FULL STOP (changed from 'Stenographic Period') in the Supplemental Punctuation block, with its glyph as shown in document N3895; create a new block Duployan in the range 1BC00 to 1BC9F, and populate it with 143 characters at code points 1BC00 to 1BC6A, 1BC70 to 1BC7C, 1BC80 to 1BC88, 1BC90 to 1BC99, and 1BC9C to 1BC9F, with their names and glyphs from document N4088, and create a new block Shorthand Format Controls in the range 1BCA0 to 1BCAF, and populate it with four characters in code positions 1BCA0 to 1BCA3 with their names and glyphs from document N4088. 	
u.	<p><i>M58.21 (Wingdings and Webdings):</i> WG2 accepts the recommendation in the ad hoc report on Wingdings and Webdings (document N4115) and accepts to encode in the standard 506 symbols in 10 blocks as follows:</p> <ul style="list-style-type: none"> - 7 characters in the Miscellaneous Technical block - 1 character in the Dingbats block - 140 characters in the Miscellaneous Symbols and Arrows block - 1 character in the Supplemental Punctuation block - 2 characters in the Enclosed Alphanumeric Supplement block - 105 characters in the Miscellaneous Symbols and Pictographs block - Create a new block named Ornament Symbols in the range 1F650-1F67F and populate it with 43 characters - 1 character in the Transport and Map Symbols block - Create a new block named Geometric Shapes Extended in the range 1F780-1F7FF, and populate it with 84 characters, and - Create a new block named Supplemental Arrows-C in the range 1F800-1F8FF and populate it with 122 characters <p>with the glyphs, character names and their code positions as shown on pages 53 through 83 in document N4115.</p>	
v.	<p><i>M58.22 (Miscellaneous character additions):</i> WG2 accepts to encode the following 29 characters in the standard:</p> <ol style="list-style-type: none"> 1F544 NOTCHED RIGHT SEMICIRCLE WITH THREE DOTS in the Miscellaneous Symbols and Pictographs block, with its glyph as shown in Table 1 in document N3971; 1F545 SYMBOL FOR MARKS CHAPTER in the Miscellaneous Symbols and Pictographs block, with its glyph as shown in consolidated charts in document N4107; 0C00 TELUGU SIGN COMBINING CANDRABINDU ABOVE in the Telugu block with a corresponding annotation to 0C01 "indicates a contextually elided nasal" to differentiate it from 0C00 0C81 KANNADA SIGN CANDRABINDU in the Kannada block, and, 0D01 MALAYALM SIGN CANDRABINDU in the Malayalam block, with their glyphs as shown on page 7 in document N3964 (all these three are combining marks); 08FF ARABIC MARK SIDEWAYS NOON GHUNNA, a combining mark, in the Arabic Extended-A block, with its glyph as shown in the table at the top of page 2 in document N3989; 08A1 ARABIC LETTER BEH WITH HAMZA ABOVE, in the Arabic Extended-A block, with its glyph as shown in table 1 on page 1 in document N3988; 037F GREEK CAPITAL LETTER YOT in the Greek and Coptic block, with its glyph from page 2, and proposed annotations for 03F3 and 037F, from document N3997; 191D LIMBU LETTER GYAN (with an annotation that it is equivalent of JNYA), and 191E LIMBU LETTER TRA, in the Limbu block, with their glyphs as shown on page 1 in document N3975; 	

	<p>h. 0978 DEVANAGARI LETTER MARWARI LETTER DDA, in the Devanagari block with its glyph as shown on page 1 of document N3970;</p> <p>i. A698 CYRILLIC CAPITAL LETTER DOUBLE O, A699 CYRILLIC SMALL LETTER DOUBLE O, A69A CYRILLIC CAPITAL LETTER CROSSED O, and, A69B CYRILLIC SMALL LETTER CROSSED O, in the Cyrillic Extended-B block, with their glyphs as shown on page 2 in document N3974;</p> <p>j. 1F641 SLIGHTLY FROWNING FACE, and, 1F642 SLIGHTLY SMILING FACE, in the Emoticons block, with their glyphs and annotations as shown on page 1 in document N3982;</p> <p>k. 2E40 DOUBLE HYPHEN in the Supplemental Punctuation block, with its glyph as shown on page 1 in document N3983, including a cross reference to 30A0; also add a cross reference from 30A0 to 2E40;</p> <p>l. 08AD ARABIC LETTER LOW ALEF 08AE ARABIC LETTER DAL WITH THREE DOTS BELOW 08AF ARABIC LETTER SAD WITH THREE DOTS BELOW 08B0 ARABIC LETTER GAF WITH INVERTED STROKE 08B1 ARABIC LETTER STRAIGHT WAW in the Arabic Extended-A block, with their glyphs and annotations as shown in the Table on page 1 in document N4072;</p> <p>m. 1031F OLD ITALIC LETTER ESS, in the Old Italic block, with its glyph as shown on page 3 in document N4046;</p> <p>n. FE27 COMBINING LIGATURE LEFT HALF BELOW FE28 COMBINING LIGATURE RIGHT HALF BELOW FE29 COMBINING TILDE LEFT HALF BELOW FE2A COMBINING TILDE RIGHT HALF BELOW, and FE2B COMBINING CONJOINING MACRON BELOW in the Combining Half Marks block, with their glyphs as shown on page 2 in document N4078.</p>	
w.	<i>M58.23 (Progression of PDAM 1 to the 3rd edition):</i> WG2 instructs its project editor to create the text of for Amendment 1 to the 3 rd edition of ISO/IEC 10646, incorporating the disposition of PDAM1 ballot comments per resolution M58.08 above, character moved from 3 rd edition per resolution M58.01 above, and text changes and characters accepted for encoding in resolutions M58.09 to M58.22 above, and send it to the SC2 secretariat for a second PDAM ballot. The consolidated charts are in document N4107 . The revised target starting dates are: PDAM 1.2 2011-07, DAM 2012-03 and FDAM 2012-11.	
x.	<i>M58.24 (Enhanced method for progressing PDAMs):</i> WG2 agrees to initiate a trial period starting after meeting 58, encouraging the project editor to make use of a discussion list and teleconferencing facilities to arrive at dispositions to ballot comments, and issuing of any PDAM ballots (within the scope of current SC2 projects and its subdivisions), between WG2 face to face meetings. WG2 requests the SC2 secretariat to provide the needed support by establishing a discussion list and inviting national bodies and liaison organizations to nominate experts to participate in the discussions associated with ballot dispositions and related matters. Other subject matter experts may also be invited to participate at the discretion of the project editor.	Completed.
AI-58-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
a.	<i>M58.27 (P&P document - adoption and additions):</i> WG2 adopts document N3902 as the updated principles and procedures. Further, WG2 accepts the additions proposed under item A, item B (with slight modification as recorded in the minutes) and item C, in document N4049 , and instructs its ad hoc on Principles and Procedures to update the P&P document (as document N4102) for adoption at WG2 meeting 59. IRG is requested to review and provide feedback on item D in document N4049 .	
b.	to address the concerns in document N4075 on potential duplication and on possible use of IVSs as method to encode z-variants, and provide feedback to WG2.	
AI-58-5	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	<i>M58.27 (P&P document - adoption and additions):</i> WG2 adopts document N3902 as the updated principles and procedures. Further, WG2 accepts the additions proposed under item A, item B (with slight modification as recorded in the minutes) and item C, in	

	document N4049, and instructs its ad hoc on Principles and Procedures to update the P&P document (as document N4102) for adoption at WG2 meeting 59. IRG is requested to review and provide feedback on item D in document N4049.	
AI-58-6	Ad hoc group on roadmap (Dr. Umamaheswaran)	
a.	To update the Roadmaps with the results from this meeting.	
AI-58-7	Ireland (Mr. Michael Everson)	
a.	With reference to Irish proposal for replacement of Bengali chart in comment E1 on Row 098 in document N4014 (results of voting on FCD of 3 rd edition), Ireland is invited to provide more information regarding the font used for Bengali in the charts for review and comment by national bodies and liaison organizations. Also refer to similar action item AI-57-7 on Ireland.	
AI-58-8	Japan (Mr. Masahiro Sekiguchi)	
a.	With reference to comment JP.7, item b, on Code charts for CJK Compatibility Ideographs in document N4014 (results of voting on FCD of 3 rd edition), Japan is invited to provide further explanation of the problem with examples.	
AI-58-9	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
a.	<i>M58.31 (Chinese Chess symbols)</i> : With reference to proposal from China in document N3910, WG2 invites China to submit a revised proposal taking into consideration the feedback comments received in documents N3966 and N3992.	
b.	<i>M58.30 (Naxi Dongba pictographs)</i> : With reference to proposal from China in document N4043, WG2 endorses the ad hoc report in document N4112, and invites China to submit a revised proposal taking into consideration the recommendations in the ad hoc report.	
c.	<i>M58.29 (Additional characters for Uighur and Chaghatay)</i> : With reference to requests from China in documents N4066 and N4067, WG2 endorses the ad hoc report in document N4113, and invites China to submit a revised proposal, based on Named USI sequences, taking into consideration the consensus in the ad hoc report.	
AI-58-10	Unicode Consortium (Mr. Peter Constable)	
	To take note of and act upon the following items:	
a.	to arrange for UTS #37 to be entered in the WG2 register, and SC2 national bodies to be invited to comment.	
b.	to revise document N4084 to remove the recommendation that WG2 take a resolution to instruct the IRG etc. and forward the revised document to IRG's attention.	
c.	to work with the project editor and update UTR #45 to facilitate timely action on resolution - <i>M58.05 (New source identifiers for orphaned CJK ideographs)</i> : WG2 accepts the proposal for new source references of the form UCI-xxxxx, per document N4111, and requests the Unicode Consortium to update Unicode Technical Report #45, assigning UCI source labels for all the ideographs which have no other source reference in ISO/IEC 10646, coordinating with the project editor. Three CJK Unified Ideograph Extension C characters --- 2AD12, 2B089, and 2B08F (per item 5 in document N4021 from IRG) are also to be given UCI source labels. The project editor is instructed to add appropriate text to the standard.	
	<i>M58.25 (Normatively referenced Unicode Technical Reports)</i> : Considering the concerns expressed in the document N4092, WG 2 requests SC2 to adopt the following resolution and communicate the same to the Unicode Consortium. Considering the concerns expressed in the document JTC1/SC2/WG2 N4092, SC2 requests the Unicode Consortium to accept the following: a. When the Unicode Consortium proposes to update any Unicode Technical Report that is normatively referenced by ISO/IEC 10646, the Unicode Consortium is asked to submit a notification of the planned update and/or the draft update text to SC 2, before the Consortium officially approves the update; b. The Unicode Consortium will consider all feedback on such a planned update received as liaison contributions from SC 2, and expressing the opinions of SC 2 and/or its participating national body members regarding a planned update; and	

	c.	In the event that the Unicode Consortium and SC 2 have different opinions on details of such an update, the Consortium will give full consideration to the SC 2 opinions and make its best effort to collaborate with SC 2 to reach a consensus.	
AI-58-11	All national bodies and liaison organizations		
		To take note of and provide feedback on the following items.	
	a.	document N4013 - Proposal to encode additional Runic characters	
	b.	the Rhetic character proposed in document N4046 - Proposal to Encode Additional Old Italic Characters	
	c.	document N4048 - Request for comments on font-making of oracle-bone scripts (feedback to be sent to TCA and to IRG)	
	d.	document N4090 - Proposal for encoding the SignWriting script	
	e.	The following documents are being carried forward. National bodies and liaison organizations are requested to review and provide any feedback they may have on them: N3288 - Old Yi script; N3598 (N3705 and N3719) on Nüshu script – 2 nd Revision; N3667 - Pahawh Hmong script; N3695 - Obsolete Simplified Chinese Characters; N3762 - Kpelle script; N3768 - Landa script; N3811 - Tolong Siki script; N3841 - the Gondi scripts; N3842 - the Balti scripts; N3848 - Dhives Akuru script; N3863 - Mende script; N3864 - Zou script; N3874 - Pyu script; N3928 - Ahom script; N3959 - Gangga Malayu script; N3961 - Logographic script of Pau Cin Hau; N3963 - Tikamuli script; N3972 - Afaka script; N3977 - Woleai script; N3980 - Subscript Solidus; N4079 – English Phonotypic Alphabet (EPA); N3986 - Encoding Model for Soyombo Vowels; N3999 - Khazarian Rovas script; N4006 - Carpathian Basin Rovas script; N4011 - heraldic hatching characters; N4012 - additional playing card characters; N4016 - Balti 'B' script; N4018 - Khambu Rai script; N4019 - Khema script; N4025 - Tulu script; N4026 – Soyombo script; N4027 - Multani script; N4028 Jenticha; N4030 - addition of six Latin characters; N4032 - Marchen script; N4033 , N4033A , N4033B , N4083 and N4094 – Report on Tangut; N4034 - Modi script; N4036 - Magar Akkha script; N4037 - Kirat Rai script; N4038 - Prachalit Nepal script; N4039 - Caucasian Albanian script; N4040 - Psalter Pahlavi script; N4041 - Mongolian Square script; N4044 - Wolof Alphabet of Assane Faye; N4073 - Metrical Symbols and related characters; N4077 - Sources for the Encoding of Jurchen; and, N4089 - playing card and tarot card characters.	
	f.	<i>M58.32 (Future meetings)</i> : WG2 endorses the following schedule for future meetings of WG2 and of IRG: WG2 meetings: Meeting 59 - 2012-02-13/17, Microsoft Campus, Mountain View, CA, USA Meeting 60 - 2012-10-22/26, Chiang Mai, Thailand (pending confirmation); Berlin, Germany (as backup, pending confirmation) Meeting 61 - 2nd Quarter 2013, Berlin, Germany (pending confirmation); (Looking for backup host) IRG meetings: IRG Meeting 38, Gyeongju, Korea, 2012-06-18/22 IRG Meeting 39, Hong Kong S.A.R., 2012-11-12/16	

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