



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 61
Holiday Inn, Vilnius, Lithuania; 2013-06-10/14

SOURCE: V.S. Umamaheswaran, Recording Secretary, Michel Suignard, Acting Meeting Convener 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: 2014-02-17

DISTRIBUTION: SC 2/WG 2 members and Liaison organizations

MEDIUM: Acrobat PDF file

NO. OF PAGES: 64 (including cover sheet)

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 N_____
ISO/IEC JTC 1/SC 2/WG 2 **N4403**
2014-01-28

Title:	Unconfirmed minutes of WG 2 meeting 61 Holiday Inn, Vilnius, Lithuania; 2013-06-10/14
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary Michel Suignard (michel@suignard.com), Acting Meeting Convener 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 and roll call

Input document:

[4405](#) 2nd Call for meeting 61 in Vilnius, Lithuania; Mike Ksar; 2013-04-23

The meeting was opened at 10:05h.

Mr. Michel Suignard: I will be the acting convener. Mr. Mike Ksar could not be here. I introduce Mr. Algirdas Krupovnickas of Lithuanian national body, our host, who will address us.

Mr. Algirdas Krupovnickas: Ladies and Gentlemen, it is my pleasure to welcome you all coming here to Lithuanian capital Vilnius. It is gratifying to know that you are visiting our country in such important time - the Lithuanian EU Presidency for the Home Affairs Council: Priorities of the area are migration, security of external borders, future improvements of EU agencies and cyber security. It is a great token of honour for Lithuania, the name of which has been mentioned for the first time in 1009 in the Kvedlingburg annals testifying about budding contacts of Lithuania with European civilization. Today's meeting of ISO working group is very important event symbolizing that Lithuania is in common world economic area, sharing a common market, common interests and openness to the whole world. The Lithuanian Standards Board (LSB) was established by the Resolution No. 125 of 25th of April 1990 of the Government of the Republic of Lithuania. LSB is the budgetary institution of the public administration functioning as the National Standards Body (NSB) and within its competence taking part in establishing and implementing the policy of the national government within the standardization field, carrying out other functions provided by the Laws and other legal acts of the Republic and taking active part in the activities of the international and European standardization organizations by representing interests of Lithuanian economy. It is my pleasure to state that LSB represents Lithuania in ISO and is a full member since 2008. Today's new challenges require more effective strengthening of standardization activity and closer cooperation. Lithuanian Ministry of Economy to which LSB is subordinate will always support new ideas and undertakings, and will deliver a favourable opinion on the program of standardization activity. While finalizing my short address I would like to wish all the participants of this meeting a constructive and productive work. I wish you a good mood and pleasant impressions during your stay in Vilnius. Thank you for your attention.

Mr. Michel Suignard: Thank you. As to logistics, we will be starting the meeting at 9:00h from Tuesday to Friday. A visit has been arranged with the Lithuanian Language Institute on Tuesday evening - we will break around 15:30h. Our host has invited us for an evening event on Wednesday and we will break around 17:30h. All the delegates are requested to indicate if they will be attending these events, how many and if you have any special food related needs. There will be coffee breaks in the morning and afternoon. The hotel restaurant would appreciate having an estimate of how many of you would be having lunch at the hotel by about 10:00h each day. A daily menu will be posted for your information. The OWG-SORT meeting will be Thursday after the lunch break.

We will plan to wrap up all the discussions by Thursday lunch hour, so that the resolutions can be

prepared during the afternoon by our recording secretary. We will meet around 10:00h on Friday to review and adopt the resolutions. A printer connected to a computer is available in the room for your use. There is also a breakout room available for ad hoc meetings.

1.1 Roll Call

Input document:

[4401](#) Experts List – post Chiang Mai meeting 60; Ksar/Uma; 2013-04-24

Mr. Michel Suignard: Dr. Umamaheswaran has printed the experts list. Please sign in and update your information and suggestions for any other deletions or additions that you may know of. Also, give your business cards to Dr. Umamaheswaran to ensure your information is correctly recorded in the attendance list.

The following 32 attendees representing 9 national bodies, and 4 liaison organizations were present at different times during the meeting.

Name	Representing	Affiliation
LU Qin	.IRG Rapporteur	Hong Kong Polytechnic University
Bear S. TSENG	.TCA – Liaison	Computing Center, Academia Sinica
Kuang-Shun (Rick) LIN	.TCA – Liaison	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs
Lin-Mei WEI	.TCA – Liaison	Chinese Foundation for Digitization Technology
Suh-Chyin CHUANG	.TCA – Liaison	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs
Alain LABONTÉ	Canada; Editor 14651; SC35 - Liaison (acting)	Independent
V. S. (Uma) UMAMAHESWARAN	Canada; Recording Secretary	IBM Canada Limited
CHEN Zhuang	China	Chinese Electronics Standardization Institute
FAN Xiaoming	China	Xinjiang Government
LI Guoying	China	Beijing Normal University
NIE Hongyin	China	Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences
SUN Bojun	China	Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences
Woushour SILAMU	China	Xinjiang University
ZHAO Liming	China	Tsing Hua University, Beijing
ZHOU Xiaowen	China	Beijing Normal University
Tero AALTO	Finland	CSC-IT Center for Science
Michael EVERSON	Ireland; Contributing Editor	Evertime
Satoshi YAMAMOTO	Japan	Hitachi Ltd.
Taichi KAWABATA	Japan	NTT Corporation
KIM Kyongsok	Korea (Republic of)	Busan National University
Algirdas KRUPOVNICKAS	Lithuania	Lithuanian Standards Board
Genadijus KULVIETIS	Lithuania	Vilnius Gediminas Technical University
Grasilda BLAZIENE	Lithuania	Institute of the Lithuanian Language
Valteris MUŽAS	Lithuania	Lithuanian Standards Board
Virginijus DADURKEVIČIUS	Lithuania	JSC „Fotonija“
Vladas TUMASONIS	Lithuania	Vilnius University
Andrew WEST	UK	Independent
Lisa MOORE	USA	IBM Corporation
Ken WHISTLER	USA; Contributing Editor	SAP America, Inc.
Michel SUIGNARD	USA; Project Editor; Acting Meeting Convener	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. Michel Suignard, Satoshi Yamamoto and Dr. Deborah Anderson volunteered to assist Dr. Umamaheswaran with the preparation and review of the draft meeting resolutions.

2 Approval of the agenda

Input document:

[4424](#) Preliminary agenda – meeting 61; Michel Suignard; 2013-05-27

Mr. Michel Suignard: All the documents received till yesterday are on the agenda. If there are more documents, for example on Nushu, I would like to know preferably today. A status report from TCA on Oracle bones is expected. There are two draft disposition of comment documents - there will be final ones at the end of the meeting.

Discussion:

Item 10.3.8 should be moved to DAM2 disposition of comments - becomes 9.1.2.4

Document [N4447](#) - UTC Liaison was added.

10.4.5 UAX9 - document [N4446](#).

Disposition: The agenda is approved as amended. It was also updated and posted to the WG 2 website as new topics or contributions were identified as the meeting progressed.

(Note: the item numbers in these minutes do not always align with the agenda item numbers in document [N4424](#). All the changes made during the meeting are included in the appropriate sections in these minutes. Some agenda items have been regrouped, reorganized or renumbered. Agenda items that were not discussed have been deleted in these minutes, and any relevant documents are grouped to be carried forward. The following table of contents reflects the items that were discussed.)

Item Number	Title	Page
1	Opening and roll call	2
1.1	Roll Call	3
2	Approval of the agenda	4
3	Approval of minutes of meeting 59	6
4	Review action items from previous meetings	6
4.1	Outstanding action items from meeting 52, Redmond, WA, USA, 2008-04-21/25	6
4.2	Outstanding action items from meeting 57, Busan, Korea (Republic of), 2010-10-04/10	6
4.3	Outstanding action items from meeting 58, Helsinki, Finland, 2011-06-06/10	7
4.4	Outstanding action items from meeting 59, Mountain View, CA, USA, 2012-02-13/17	7
4.5	New action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	8
5	JTC1 and ITTF matters	12
6	SC2 matters:	12
6.1	SC2 program of work and business plan	12
6.2	SC2 Program of Work	12
6.3	Summary of voting on ISO/IEC 10646: 2012/DAM 2	12
6.4	Disposition of ballot comments DAM 2	13
6.4.1	Germany - "Yes" with comments	13
6.4.2	Ireland: Negative	13
6.4.3	Japan: "Yes" with comments	16
6.4.4	Korea: Negative	18
6.4.5	USA: "Yes" with comments	18
7	WG2 matters	19
7.1	Possible ad hoc meetings	19
7.2	Summary of voting for CD ballot of ISO/IEC 10646 4 th edition	19
7.3	Disposition of ballot comments on CD of ISO/IEC 10646 4 th edition	20
7.3.1	China: "Yes" with comments	20
7.3.2	Egypt: "Yes" with comments	20
7.3.3	Ireland: Negative.	21
7.3.4	Japan: "Yes" with comments	24
7.3.5	USA: Negative.	32
7.4	Roadmap Snapshot	34
8	IRG status and reports	34
8.1	IRG meetings 39 and 40 - summary report	34
8.2	Process for Urgently Needed Characters	37

Item Number	Title	Page
9	Script contributions related to ballots:	37
9.1	Related to Amendment 2 (DAM2)	37
9.2	Related to ISO/IEC 10646 4th edition CD	37
9.2.1	Reallocating recently approved characters within the Sharada block	38
9.2.2	Minor typos in ISO/IEC 10646 4 th edition CD (ROK)	38
9.2.3	Comments on ISO/IEC 10646 4 th edition CD (editor)	38
9.2.4	CJK Ideographs Extension E correction	38
9.2.5	Cuneiform Sign Ka Times U (editor)	39
10	Script contributions not related to ballots	39
10.1	Carried forward	39
10.1.1	Scripts and new blocks:	39
10.1.2	Miscellaneous additions to blocks:	39
10.2	New Scripts or Blocks	40
10.2.1	Nushu	40
10.2.2	Nandinagari script	40
10.2.3	Pau Cin Hau syllabary - chart	40
10.2.4	Mongolian Square script	41
10.2.5	Soyombo script	41
10.2.6	Leke script	41
10.2.7	Tamil supplement block	41
10.2.8	Oracle Bones - status	42
10.2.9	Re-facture of Tangut fonts	42
10.3	Additions to Existing Scripts or Blocks	43
10.3.1	Four Historic Latin letters for Sakha (Yakut)	43
10.3.2	Telugu Letter RRRA	44
10.3.3	Four new Arrows	44
10.3.4	One Slavonic Cyrillic character	44
10.3.5	Bowl of Hygieia	45
10.3.6	Duodecimal Digit forms	45
10.3.7	Symbols for penalty cards	46
10.3.8	Azerbaijani Manat currency sign	46
10.3.9	Jain Om for Devanagari	46
10.3.10	Bakhshali minus sign	47
10.3.11	Malayalam Chillu LLL	47
10.3.12	Malayalam minor fractions	47
10.3.13	Grantha Om	47
10.3.14	Grantha Anusvara Above	48
10.3.15	Symbols of ISO/IEC 9995-10: 2013	48
10.3.16	Marchen script	49
10.4	Miscellaneous Proposals	50
10.4.1	Subtitles in U11xx and U31xx (Hangul Jamo)	50
10.4.2	Clause 22.1 Hangul syllable composition method and 23.1 List of source references in ISO/IEC 10646	50
10.4.3	Data format for CJK sources	51
10.4.4	Lithuanian accents (SEI)	52
10.4.5	Latvian characters	52
10.4.6	Draft UTN on User Guidelines for Uyghur, Kazakh, Kyrgyz and Chagatai	53
11	Architecture issues	53
11.1	Charts presentation	53
11.1.1	Math characters and variation sequences	53
11.1.2	Presentation of Vertical scripts (Mongolian and Phags-pa)	54
12	Progression of Work Items	55
12.1	Amendment 2 to 3rd edition	55
12.2	4th edition	55
12.3	Future Amendment 1 to 4th edition	55
13	Liaison reports	55
13.1	Unicode Consortium	55
13.2	SEI	55
14	Other business	56
14.1	Future Meetings	56
14.1.1	Meeting 62 – 2014-02 24-28 - Adobe, San Jose, CA, USA (Unicode: Host)	56

Item Number	Title	Page
14.1.2	Meeting 63 – 2014-09 Sri Lanka (tentative); (China backup) (co-located with SC2)	56
14.1.3	Meeting 64 –2015-05 Spring/Summer - looking for host (Europe?)	56
15	Closing	56
15.1	Approval of Resolutions of Meeting 61	56
15.2	Adjournment	57
16	Action items	57
16.1	Outstanding action items from meeting 52, Redmond, WA, USA, 2008-04-21/25	58
16.2	Outstanding action items from meeting 57, Busan, Korea (Republic of), 2010-10-04/10	58
16.3	Outstanding action items from meeting 58, Helsinki, Finland, 2011-06-06/10	58
16.4	Outstanding action items from meeting 59, Mountain View, CA, USA, 2012-02-13/17	58
16.5	Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	58
16.6	New action items from meeting 61, Vilnius, Lithuania, 2013-06-10/14	59

3 Approval of minutes of meeting 59

Input document:

[4353](#) Draft Minutes – Meeting 60 Chiang Mai; Mike Ksar & Uma; 2013-05-13

Dr. Umamaheswaran: If there are any corrections please let me know. There was no feedback on the draft minutes that were posted.

Disposition: The minutes are approved as written.

4 Review action items from previous meetings

Input document:

[4353-AI](#) Action items from Meeting 60, Chiang Mai; Mike Ksar & Uma; 2013-05-13

Dr. Umamaheswaran reviewed and updated the action items from the previous meetings. The resulting updated status for each item is shown below. All the action items recorded in the minutes of the previous meetings from 25 to 51, and, 53 to 56 have been either completed or dropped. Status of outstanding action items from previous meetings 52 and 57 to 60 are listed in the tables below. Of the total of 50 action items 10 are carried forward.

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

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.	<i>M52.5 (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, M58, M59 and M60 – in progress.	In progress.

4.2 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-57-8	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
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, M59, and M60 – in progress.	In progress.

4.3 Outstanding 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.)	Status
AI-58-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
b.	to address the concerns in document N4075 on potential duplication and on possible use of IVS-s as method to encode z-variants, and provide feedback to WG2. M58, M59 and M60 – in progress.	Completed; see IRG summary report in document N4427..
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. M58, M59 and M60 – in progress.	In progress.
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 . M58, M59 and M60 – in progress.	In progress.
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. M58, M59 and M60 – in progress.	In progress.

4.4 Outstanding action items from meeting 59, Mountain View, CA, USA, 2012-02-13/17

Item	Assigned to / action (Reference resolutions in document N4254 , and unconfirmed minutes in document N4253 for meeting 59.)	Status
AI-59-3	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:	
s.	With reference to document N4173 - IRG Errata Report, to check for possible Source-Mapping changes that we can request IRG to review and put a solution in place.	In progress.
AI-59-7	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
a.	<i>M59.05 (Named USIs for characters for Uyghur and Chaghatay)</i> : With reference to request for NUSIs from China in document N4218 and the proposed alternative NUSIs in document N4231 from SEI, WG2 accepts the proposed 9 language-neutral NUSIs from document N4231 for inclusion in the next amendment to the standard. WG2 further invites China to work with experts from the Unicode Consortium in preparing a Unicode Technical Note to assist the Uyghur and Chaghatay users in implementation using the standard.	Completed; see document N4463 .
AI-59-8	Unicode Liaison (Mr. Peter Constable)	
a.	<i>M59.05 (Named USIs for characters for Uyghur and Chaghatay)</i> : With reference to request for NUSIs from China in document N4218 and the proposed alternative NUSIs in document N4231 from SEI, WG2 accepts the proposed 9 language-neutral NUSIs from document N4231 for inclusion in the next amendment to the standard. WG2 further invites China to work with experts from the Unicode Consortium in preparing a Unicode Technical Note to assist the Uyghur and Chaghatay users in implementation using the standard.	Completed; see document N4463 .

4.5 New action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27

Item	Assigned to / action (Reference resolutions in document N4354, and unconfirmed minutes in document N4353 for meeting 60 (this document you are reading.))	Status
AI-60-1	Recording Secretary - Dr. V.S. UMaMaheswaran	
a.	To finalize the document N4354 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N4354.
b.	To finalize the document N4353 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N4353.
AI-60-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items:	
a.	<i>M60.21 (Roadmap snapshot):</i> WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N4320) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
b.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list of documents under AI-60-12 - items a to d - below.)	Completed; Added in agenda document N4424.
AI-60-3	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>M60.01 (Disposition of ballot comments of DAM1):</i> WG2 accepts the disposition of DAM 1 ballot comments in document N4346. The following significant changes are noted: Change in names: <ul style="list-style-type: none"> AB53 from LATIN SMALL LETTER STRETCHED X to LATIN SMALL LETTER CHI AB54 from LATIN SMALL LETTER STRETCHED X WITH LOW RIGHT RING to LATIN SMALL LETTER CHI WITH LOW RIGHT RING, and AB55 from LATIN SMALL LETTER STRETCHED X WITH LOW LEFT SERIF to LATIN SMALL LETTER CHI WITH LOW LEFT SERIF Addition: <ul style="list-style-type: none"> 20BA TURKISH LIRA SIGN with its glyph from document N4273. WG2 also accepts changing of glyphs to match the names for four characters 2BCC to 2BCF as noted in document N4363. The final code positions, glyphs and names are in the charts in document N4381.	
b.	<i>M60.02 (Progression of Amendment 1):</i> WG2 instructs its project editor to prepare and to forward the final text of Amendment 1 to the 3 rd Edition, which will include the changes arising from resolution M60.01 above, along with the final disposition of comments (document N4346) to the SC2 secretariat for processing as an FDAM ballot.	Items a and b completed; see document 02n4266.
c.	<i>M60.03 (Disposition and progression of PDAM 2):</i> WG2 notes the disposition of ballot comments on PDAM 2 (SC2 N4228) in document N4306 and the subsequent text of PDAM 2.2 (SC2 N4239), that were generated between WG2 meetings 59 and 60. There were 14 character deletions, and 276 character additions, to the 900 in PDAM 2, several glyph changes, name changes and reallocation of code positions, as detailed on pages 1 to 8 in document N4306, resulting in a net of 1162 characters in PDAM 2.2.	Noted.
d.	<i>M60.04 (Standardized variants for compatibility ideographs):</i> WG2 accepts to add the 1002 standardized variants for compatibility ideographs, from document N4246-A.	
e.	<i>M60.05 (Disposition of ballot comments of PDAM 2.2):</i> WG2 accepts the disposition of PDAM 2.2 ballot comments in document N4377. The following significant changes are noted: <ol style="list-style-type: none"> Old Hungarian block: Based on the Old Hungarian ad hoc report in document N4374, <ul style="list-style-type: none"> Replace 'Old Hungarian' in the names of the block and all the characters in the block with 'Hungarian', 	

	<ul style="list-style-type: none"> • Add annotations to names to address potential multiple names, and, • Shift down the 5 characters 10CF9..10CFD to 10CFA..10CFE. <p>b. Pahawh Hmong block:</p> <ul style="list-style-type: none"> • Split the Pahawh Hmong characters in the range 16B7E..16B8F, and rearrange them in the two ranges 16B7D..16B86 and 16B88..16B8F, and, • Add 16B87 PAHAWH HMONG CLAN SIGN PHAB (with its glyph from Irish ballot comment T.3). <p>c. Mende and Mende Numbers blocks:</p> <p>Based on the Mende Numbers ad hoc report in document N4375,</p> <ul style="list-style-type: none"> • Move the Mende digits from 1E8D1..1E8D9 in Mende Numbers block to 1E8C7..1E8CF in Mende block, • Delete the Mende Numbers block 1E8D0..1E8EF, • Extend Mende block by 1 column to end at 1E8DF, and, • Add 7 combining Mende number bases at 1E8D0..1E8D6. <p>d. Changed the character names for:</p> <ul style="list-style-type: none"> • 20BB from MARK SIGN to NORDIC MARK SIGN, • 1F6CD from TWO SHOPPING BAGS to SHOPPING BAGS, • 1F3CD from MOTORCYCLE to RACING MOTORCYCLE, • 1F3DE from PARK to NATIONAL PARK, • 1F6E4 from RAILWAY to RAILWAYS TRACK, and, • 1F6CC from BED to SLEEPING ACCOMMODATION. <p>e. Moved with name change:</p> <ul style="list-style-type: none"> • 1F3CF RACE CAR to 1F3CE RACING CAR. <p>f. Moved without name change:</p> <ul style="list-style-type: none"> • 1F6D0 BELLHOP BELL to 1F6CE, • 1F6EE SATELLITE to 1F6F0, • 1F6F2 ONCOMING FIRE ENGINE to 1F6F1, • 1F6F4 DIESEL LOCOMOTIVE to 1F6F2, • 1F6E7 SMALL AIRPLANE to 1F6E9, and, • 1F6E9 NORTHEAST-POINTING AIRPLANE to 1F6EA. <p>g. Added following 10 characters (see final charts for glyphs):</p> <ul style="list-style-type: none"> • 1F6E6 UP-POINTING MILITARY AIRPLANE, • 1F6E7 UP-POINTING AIRPLANE, • 1F6E8 UP-POINTING SMALL AIRPLANE, • 1F6F3 PASSENGER SHIP, • 1F3D6 BEACH WITH UMBRELLA, • 1F3D5 CAMPING, • 1F6CF BED, • 1F3D4 SNOW CAPPED MOUNTAIN, • 1F6EB AIRPLANE DEPARTING, and, • 1F6EC AIRPLANE ARRIVING. <p>h. Deleted the following 3 characters:</p> <ul style="list-style-type: none"> • A78F LATIN LETTER MIDDLE DOT in Latin Extended-D block (moved it into the text of next committee stage ballot), • 2B74 LEFT RIGHT TRIANGLE-HEADED ARROW TO BAR, and, • 2B75 UP DOWN TRIANGLE-HEADED ARROW TO BAR <p>i. Several glyphs are changed arising out of disposition of the ballot comments above. The final code positions, glyphs and names are in the charts in document N4380.</p>	
f.	<p><i>M60.06 (Progression of Amendment 2):</i> WG2 instructs its project editor to prepare and to forward the final text of Amendment 2 to the 3rd Edition, which will include the changes arising from resolutions M60.04 and M60.05 above, along with the final disposition of comments (document N4377) to the SC2 secretariat for processing as a DAM ballot.</p>	Items d to f completed; see document 02n4267 .
g.	<p><i>M60.07 (CJK Unified Ideographs Extension E):</i> WG2 accepts to create a new block named CJK Unified Ideographs Extension E in the range 2B820 to 2CEAF and populate it with 5768 characters in code positions 2B820 to 2CEA7, with their glyphs and source references as shown in the attachments to document N4358.</p>	
h.	<p><i>M60.08 (Anatolian Hieroglyphs):</i> WG2 accepts to create a new block named Anatolian Hieroglyphs in the range 14400 to 1467F, and populate it with 583 characters in code positions 14400 to 14646, with their names and glyphs as shown in document N4282.</p>	
i.	<p><i>M60.09 (Ahom script):</i> WG2 accepts to create a new block named Ahom in the range</p>	

	11700 to 1173F, and populate it with 57 characters in code positions 11700 to 11719, 1171D to 1172B, and 11730 to 1173F, with their names and glyphs as shown in document N4321 .	
j.	<i>M60.10 (Multani script)</i> : WG2 accepts to create a new block named Multani in the range 11280 to 112AF, and populate it with 38 characters in code positions 11280 to 11286, 11288, 1128A to 1128D, 1128F to 1129D, and 1129F to 112A9, with their names and glyphs as shown in document N4159 .	
k.	<i>M60.11 (Early Dynastic Cuneiform script)</i> : WG2 accepts to create a new block named Early Dynastic Cuneiform in the range 12480 to 1254F, and populate it with 197 characters in code positions 12480 to 12544, with their names and glyphs as shown in document N4278 .	
l.	<i>M60.12 (Hatran script)</i> : WG2 accepts to create a new block named Hatran in the range 108E0 to 108FF, and populate it with 30 characters in code positions 108E0 to 108F5, and 108F8 to 108FF, with their names and glyphs as shown in document N4324 .	
m.	<i>M60.13 (Sutton SignWriting script)</i> : WG2 accepts to create a new block named Sutton SignWriting in the range 1D800 to 1DAAF, and populate it with 672 characters in code positions 1D800 to 1DA8B, 1DA9B to 1DA9F, and 1DAA1 to 1DAAF, with their names and glyphs as shown in document N4342 .	
n.	<i>M60.14 (East-Slavic Musical symbols)</i> : WG2 accepts to add 11 characters to the Musical Symbols block, with their names, glyphs and code points from document N4362 .	
o.	M60.15 (Additions to Sharada script) WG2 accepts to add the following 9 characters to the Sharada block: <ul style="list-style-type: none"> a. 3 characters for writing Kashmiri: <ul style="list-style-type: none"> 111CA SHARADA SIGN NUKTA, 111CB SHARADA VOWEL MODIFIER MARK, and, 111CC SHARADA EXTRA SHORT VOWEL MARK, with their glyphs from document N4265. a. 111DB SHARADA HEADSTROKE, with its glyph from document N4337, b. 111DC SHARADA SIGN SIDDHAM, with its glyph from document N4331, c. 111C9 SHARADA SANDHI MARK, with its glyph from document N4330, d. 111CE SHARADA CONTINUATION SIGN, with its glyph from document N4329, and, e. 111DD SHARADA SECTION MARK-1, and, 111DE SHARADA SECTION MARK-2, with their glyphs from document N4338 .	
p.	<i>M60.16 (Meroitic numbers)</i> : WG2 accepts to add 64 characters to the Meroitic Cursive block, at code positions 109BC, 109BD, 109C0 to 109CF, and 109D2 to 109FF, with their names and glyphs as shown in document N4276 .	
q.	M60.17 (Miscellaneous character additions) WG2 accepts to add the following: <ul style="list-style-type: none"> • A8FC DEVANAGARI SIGN SIDDHAM, to the Devanagari Extended block, with its glyph from document N4260; • 0D5F MALAYALAM LETTER ARCHAIC II, to the Malayalam block, with its glyph from document N4312; • A7B2 LATIN CAPITAL LETTER J WITH CROSSED-TAIL, to the Latin Extended-D block, with its glyph from document N4332; • The following 5 characters with their glyphs from document N4297, to the Latin Extended-D block, <ul style="list-style-type: none"> ○ A7B4 LATIN CAPITAL LETTER BETA, ○ A7B5 LATIN SMALL LETTER BETA, ○ A7B6 LATIN CAPITAL LETTER OMEGA, ○ A7B7 LATIN SMALL LETTER OMEGA, and, ○ A7B3 LATIN CAPITAL LETTER CHI; • A78F LATIN LETTER MIDDLE DOT, to the Latin Extended-D block (moved out from Amendment 2 text to the next committee stage ballot) 	
r.	<i>M60.18 (Project subdivision)</i> : WG2 instructs its convener and project editor to create a project subdivision proposal document (will be document N4382) for creation of ISO/IEC 10646 4 th edition, incorporating the texts of Amendments 1 and 2 to the 3 rd edition, and further changes accepted in resolutions M60.07 to M60.17 above, and textual changes as noted in document N4379 . WG2 notes that the subdivision proposal includes provisions for including additional	Completed; see document N4382 .

	characters or new scripts during the ballot resolution phase towards agile processing of the committee draft and speeding up the work of WG2 between face to face meetings. The target starting dates are: CD 2012-12, DIS 2013-08 and FDIS 2014-03.	
s.	<i>M60.19 (CD of 4th edition)</i> : WG2 instructs its project editor to create the text for the CD of the 4 th edition of ISO/IEC 10646, in accordance with the project subdivision document per resolution M60.18 above, and send it to SC2 secretariat for a CD ballot. The consolidated charts will be in document N4383 .	Items g to q and item s completed; see documents in folder 02n4268 .
t.	to correct the content in standard for source references for TCA in clause 23.1; per document N4356 from IRG.	Completed, In the CD ballot text.
u.	To prepare a response to the concerns expressed by Japan in document N4365 regarding translation of 10646-2012 into Japanese.	Completed; see document N4379 .
AI-60-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
a.	To provide a list of sources used for CJK Ext-E in the same format as used in clause 23.2 of the standard to the project editor (see also resolution M60.07 under AI-60-3 item g above).	Completed. In CD ballot text.
AI-60-5	Ad hoc group on roadmap (Dr. Umamaheswaran)	
a.	To update the Roadmaps with the results from this meeting.	Completed; see document N4415 .
AI-60-6	Ad hoc group on principles and procedures (Dr. Umamaheswaran)	
a.	To work with Dr. Lu Qin and Mr. Michel Suignard re: any needed rewording of the question on Stroke count for Ideographs in the Proposal Summary Form.	Document N4049 item D was not in P&P document; requested by UTC. To check with UTC liaison. Completed.
AI-60-7	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
a.	<i>M60.20 (Nushu)</i> : WG2 invites China to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nushu ad hoc report in document N4376 .	In progress.
b.	To provide whatever feedback Chinese experts have on Tangut to the authors of Tangut proposals at the earliest, and to ensure that a comparison is made between their new font with the current font used in the proposal charts.	In progress.
AI-60-8	Liaison representative to JTC1/SC35 (Alain Labonté)	
a.	Is invited to communicate to the author of proposal in document N4318 for Four Arrows from 9995-7 to prepare a revised proposal, bundling it with revision of N4317 on other symbols from SC35, taking into account discussion at this meeting.	Completed.
AI-60-9	SEI - Dr. Debbie Anderson	
a.	To follow up with experts (along with Mr. Michael Everson) on combining sequences in section 4 of document N4282 on Anatolian Hieroglyphs.	Completed - N4441 .
b.	Is invited to revise the proposal in document N4262 on Unifon and other characters based on ad hoc discussions at this meeting.	In progress.
c.	Is invited to work with the author to revise the proposal in document N4336 on Siddham accommodating the discussion at this meeting.	Completed. N4378 .
AI-60-10	Irish national body - Mr. Michael Everson	
a.	To get more information related to the status, its stability and other clarifications based on the discussions in the meeting on document N4323 - Mwangwego script.	In progress.
AI-60-11	Japanese national body - Mr. Tetsuji Orita	
a.	To communicate to Japanese experts document N4369 - response to concerns expressed in document N4361 on Siddham proposal, and the discussion in the meeting.	Completed; see document

		N4407 .
AI-60-12	All national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
a.	document N4357 Old Hanzi Principles & Procedures – version 3.	Noted.
b.	documents N4184 , N4322 , N4347 and N4372 related to Nepaalalipi / Newar script.	Noted.
c.	SEI liaison report in document N4364 .	Noted.
d.	Following items are carried forward from earlier meetings: N4292 - Afaka; N4156 - Annotations for Bengali ISSHAR; N4281 - Annotations for some modifier letters used for transliteration of Hebrew; N4168 and N4163 - Azerbaijani Manat currency sign; N4293 - Bagam; N4016 - Balti 'B'; N3842 - Balti scripts; N4148 - Bengali annotations; N4121 - Bhaiksuki; N4299 - Bodoni Ornament symbols; N4257 - Capitalized Commercial At symbol; N4212 - Combining decimal digits above; N4287 - Coorgi-Cox; N4140 - Dhimal; N3848 - Dhives Akuru; N4207 - Disunifying Emoji symbols for the Western zodiac; N4119 - Diwani Numerals Model; N4122 - Diwani Siyaq Numbers; N4079 - English Phonotypic Alphabet (EPA); N4213 - Four historic Latin letters for Sakha (Yakut); N4261 - Garay; N4291 - Gondi; N4011 - Heraldic hatching characters; N4208 - Historic currency signs of Russia; N4123 - Indic Siyaq ; N4130 - Introducing 'Khatt-i Baburi'; N4028 - Jenticha; N4266 - Kawi; N4018 - Khambu Rai; N4019 - Khema; N4037 - Kirat Rai; N3762 - Kpelle; N3768 - Landa; N4162 - Latin letters used in the Former Soviet Union; N4344 - Leke; N4210 - Linguistic Doubt Marks; N3961 - Logographic Pau Cin Hau; N4209 - Low One Dot Leader; N4036 - Magar Akkha; N4032 - Marchen; N4174 - Metrical symbols; N4118 - Model for Numerals of the Ottoman Siyaq System; N4117 - Model for Raqm Numerals; N4160 - Mongolian Square; N4128 - Moon; N3695 - Obsolete Simplified Chinese Characters; N3288 - Old Yi; N4270 - Ornamental Dingbats present on Apple devices; N4124 - Ottoman Siyaq ; N4125 - Persian Siyaq; N3874 - Pyu; N4283 - Rohingya; N4256 - six punctuation characters introduced by Hervé Bazin; N4077 - Sources for the Encoding of Jurchen; N4215 - TELUGU LETTER RRRR; N3963 - Tikamuli; N3811 - Tolong Siki; N4025 - Tulu; N4211 - Two Greek modifier letters for Critical Apparatuses.; N4146 - Woleai; N4044 - Zou. (N4044).	Nushu, and Telugu Letter RRRR updated document N4215 are on the agenda.
e.	<i>M60.22 (Future meetings)</i> : WG2 endorses the following schedule for future meetings of WG2 and of IRG: WG2 meetings: Meeting 61 – 2013-06-10/14, Vilnius, Lithuania (invitation is in document N4359) Meeting 62 – 2014-02-24/28, West Coast, USA (location to be confirmed) Meeting 63 – 2014-09, Sri Lanka (tentative); (with China as backup) (co-located with SC2) IRG meetings: IRG Meeting 40, HKSAR, 2013-05-20/24, and, IRG Meeting 41, Japan, 2013-11-18/22 (tentative) (China is backup).	Noted.

5 JTC1 and ITTF matters

Input document:

[4394](#) Approved FDAM1 results; SC2 Secretariat; 2013-02-12

The above document was for information of the delegates. The 1st Amendment to 3rd edition of ISO/IEC 10646 has been published. It is not yet posted to the Freely Available Standards collection.

6 SC2 matters:

6.1 SC2 program of work and business plan

6.2 [SC2 Program of Work](#)

FYI

6.3 Summary of voting on ISO/IEC 10646: 2012/DAM 2

Input document:

[4419](#) Summary of Voting/Table of Replies 10646-2012/DAM 2; SC2 Secretariat; 2013-04-30 (SC2 N4798)

37 JTC1 member bodies responded, 2 did not. 15 P and 2 O members had approved; 2 P members (Ireland and Korea (Republic of)) had disapproved; and 16 P and 2 O members had abstained. Germany, Ireland, Korea (Republic of) and the USA had commented.

6.4 Disposition of ballot comments DAM 2

Input documents:

- [4386-A](#) Text of Amendment 2 for DAM ballot (Part of 02n4267); 2012-11-19 (attachments [4386-B](#), [4386-C](#), and [4386-D](#))
[4423](#) Proposed disposition of comments for DAM2; Michel Suignard; 2013-05-06

Supporting input documents which were covered during the discussion of disposition of comments:

- [4336](#) Proposal to encode section marks for Siddham; Anshuman Pandey; 2012-09-30
[4378](#) Additional Information on Siddham Section Marks (4336) ; Deborah Anderson, SEI , UC Berkeley; 2012-12-24
[4383](#) Additional repertoire for 4th edition; Michel Suignard; 2012-10-25
[4391](#) Additional expert feedback on Siddham Section marks ; Bill Eidsun (via Deborah Anderson); 2013-01-28
[4396](#) Rationale for script name change from Mende to Kikakui; Debbie Anderson; 2013-02-01
[4407](#) Proposal to Encode Variants for Siddham Variants; Kawabata, Taichi; 2013-06-11
[4420](#) Declaration in support of the encoding of Hungarian; Miklós Szondi; 2013-05-05
[4422](#) Declaration for declining the "Hungarian" block of the DAM; Jenő Demeczky, Lajos Ivanyos, Gábor Hosszú, Tamás Rumi, László Sípos, and Erzsébet Zelliger; 2013-03-07
[4457](#) Name changes for Siddham Section marks; Deborah Anderson and Anshuman Pandey, SEI, UC Berkeley and Michael Everson; 2013
4460 Siddham ad hoc report; Siddham ad hoc committee – Tero Aalto; 2013-06-12

Output document:

- [4453](#) Final disposition of comments for DAM2; Michel Suignard; 2013-06-14

Comments were received from Germany, Ireland, Japan, South Korea (ROK), and USA.

6.4.1 Germany - "Yes" with comments

T.1 - Germany requests a name change for A7AF from LATIN LETTER SMALL CAPITAL OMEGA to LATIN LETTER SMALL CAPITAL GREEK OMEGA. The rationale for the request is given. Two other characters A7B6 LATIN CAPITAL LETTER OMEGA, and A7B7 LATIN SMALL LETTER OMEGA, from document [N4383](#) are also referenced.

Mr. Michel Suignard explained the current practice of naming of similar characters used in IPA context. This is the first occurrence of a LATIN LETTER character (without SMALL or CAPITAL preceding immediately LETTER) using a glyph and a name from another script, so there is no established precedent. IPA block is full so we are moving to Latin Extended block. These new characters are similar to IPA characters. The suggestion from Germany is to rename these to go along the characters with Latin Extended block. Annotations can be added to indicate these are not Latin letters.

Discussion:

- a. Mr. Michael Everson: Note Ireland has related move comment in CD ballot response.

Disposition: Accepted in Principle. Renamed and moved the character to AB65 GREEK LETTER SMALL CAPITAL OMEGA. (The location move is a result of disposition of Irish comment T2 of the CD ballot on ISO/IEC 10646 4th edition [N4454](#)).

See relevant resolution M61.01 on page 19.

6.4.2 Ireland: Negative

T.1 - Ireland requests change of the name of the script from HUNGARIAN to either OLD HUNGARIAN or to SZEKLER-HUNGARIAN in both the block names and the character names. The comment includes the rationale including an analysis of several WG2 documents on the topic.

Mr. Michel Suignard: From the process point of view, as the project editor, I see there is only one vote against in the DAM ballot. Reopening the Hungarian name issue will cause more problems.

Discussion:

- a. Mr. Peter Constable: Ireland had said in Chiang Mai that they could live with the name 'Hungarian' and that is why we decided to go forward with that name.
b. Mr. Michael Everson: The only reason we chose 'Hungarian' in Chiang Mai was to try and placate the Rovas group. There was public consultation - call for public comment in Hungary. The non-Rovas group had the majority and their preference was for 'Old Hungarian'. The question to ask

- would be whether to keep the repertoire in the FDAM2 or move it to DIS of next edition.
- c. Mr. Michel Suignard: I prefer to go with what we have in DAM2 now.
 - d. Mr. Michael Everson: It is not just a name for all people. The name 'Hungarian' will cause confusion with 'Latin' writing of Hungarian language. Document N4422 has been made available. The proposal is to change from Hungarian to Old Hungarian or SZEKLER-HUNGARIAN.
 - e. Mr. Tero Aalto: The current name is not ideal .. I will go with 'Hungarian'.
 - f. Dr. Ken Whistler: As far as the US is concerned, either name - 'Old Hungarian' or 'Hungarian' is fine. Hungary was abstaining in the earlier ballots.
 - g. Mr. Michael Everson: The Hungarian national body had not objected to 'Hungarian'. They also had stated that they are not opposed to standardization. WG2 proactively decided to change the name to HUNGARIAN to see if the two parties could be encouraged to come together. The Rovas team was unwilling to any name change. In Dublin, in 2009, we had come up with Hungarian-Runic. The Rovas team did not agree. We waited for two years, and no one from Hungary turned up. We had ad hocs, based on the documents that were provided, and we decided on Old Hungarian. In Chiang Mai we tried Hungarian as the name to see if a compromise could be arrived at. The new name was not acceptable to either party. The Hungarian national body has voted to accept, but they are not really in consensus. If we reinsert the name Old Hungarian then the current user group will be happy with it, but not the Rovas group, irrespective of the Hungarian national body vote.
 - h. Mr. Peter Constable: You are also suggesting SZEKLEY-HUNGARIAN, though not preferred by the colleagues. Is it acceptable? It is clear that there is no statement from all stake holders that they like any of these. A merit of Hungarian is that it contains that in all the character names; no one can object to that portion of the name. We already know that Old Hungarian is not going to be acceptable to everyone. The SZEKLEY HUNGARIAN would possibly be acceptable to both groups.
 - i. Ms. Lisa Moore: The Hungarian national body should be given a chance to vote on it (new name).
 - j. Mr. Michel Suignard: We should have a technical ballot on any name change. Will the UTC have any objection to move to another ballot? If this group wants to entertain a name change it can be moved out of DAM2 but into the CD ballot.
 - k. Mr. Ken Whistler: I don't think creating yet another attempted compromise by the committee is going to satisfy either of the dissenting parties. If anything is to be done, reverting to Old Hungarian would be the better option. It would be better to take it out of the ballots, and let the parties come to a consensus or what we will be getting into would be more cycles.
 - l. Mr. Andrew West: The UK prefers to revert back to 'Old Hungarian', pull it out of Amd. 2, and put it into 4th edition ballot.
 - m. Mr. Peter Constable: The UTC and the US will have no objection to go back to the previous position. But the only question would be - will we be able to arrive at a consensus among the two parties?
 - n. Mr. Michel Suignard: I would like to get this name question settled once and for all. Even if we put into the next technical ballot, we still have the question -- we accepted 'Hungarian' and it passed.
 - o. Ms. Lisa Moore: Could we contact the Hungarian national body and seek their input on what their position may be if we decide to take it out of Amd. 2 and put it into the next ballot on the 4th edition?
 - p. Dr. Ken Whistler: I agree with Messrs. Michael Everson and Andrew West that 'Old Hungarian' would be a better name. Every time we are raising this issue, we are kicking it into another ballot cycle and we may not be the right committee to argue about it. Even though there has been no objection from Hungarian national body, we have Ireland voting NO unless the name is changed. There is a risk no matter what we do.
 - q. Mr. Michael Everson: We acted proactively in Chiang Mai. That was a mistake.
 - r. Mr. Michel Suignard: But the ballot passed with 'Hungarian'. Only Ireland objects to it.
 - s. Dr. Umamaheswaran: We have the option of going as you suggested with the negative ballot of Ireland. However, since we seem to be getting negative indications, we should pull the repertoire out of all the ballots.

The discussion was suspended till Mr. Michael Everson attempted to reach Hungarian national body (MSZT) contact.

Mr. Michael Everson: I have been attempting to make contact with the Hungarian national body MSZT. We can entertain three options:

- Leave it as Hungarian; WG2 cannot do anything further.
- Hungarian national body can support the Ireland proposal to revert to 'Old Hungarian'
- Prefer to have another round of ballot.

I got some responses, but not direct answers to our questions. In accordance with the past practice the majority is for the Ireland's proposal to revert to Old Hungarian.

If we proceed to FDAM with no changes, there is a risk of the FDAM ballot failing by Hungary voting against it. My personal preference is to move it out of the Amd. 2 and into the DIS of 4th edition allowing for one more round of ballot - just being more prudent. If there is still a problem with DIS ballot then we can pull the script out of the standard.

Discussion:

- a. Dr. Umamaheswaran: There are red flags being raised by some groups and documents are being circulated directly to national bodies at high levels. I think we should pull the script out of the standard till Hungarian national body can come up with a firm proposal.
- b. Dr. Ken Whistler: We in WG2 have followed the process. The project editor's current position is correct so far. If we change the name back to Old Hungarian it may give more fuel to the opposing group. While the name Hungarian was sufficient for us, we also liked the name Old Hungarian. In terms of process we have a ballot on Amd. 2 that has passed with Hungarian as the name, with one objection from Ireland. If we move it to the DIS with another chance to ballot the procedural stuff could be defused.
- c. Mr. Michael Everson: MSZT cannot provide feedback in time for this meeting.
- d. Dr. Ken Whistler: In terms of complaints on the process, the safest course would be to move the script to DIS, even though it is risky. Any ballot we put out on this script is a risk. Personally 'Old Hungarian' is a better name - I always thought that.
- e. Mr. Michel Suignard: Any other opinions?
- f. Mr. Andrew West: It is a good idea to move it to the DIS with name reverted to 'Old Hungarian'.
- g. Mr. Peter Constable: I agree.
- h. Mr. Michel Suignard: It will also accommodate the Ireland ballot comment on the name, and it will change the Irish ballot position on the Amd. 2.
- i. Ms. Lisa Moore: It seems to me that you have a Yes vote from the Hungarian national body. We should proceed with what has passed the ballots so far. To me, moving it to the DIS seems to be an unnecessary risk.
- j. Mr. Michel Suignard: That was my position. There is a risk of losing 6 months if the DIS has problems. We could remove Hungarian and pass DIS without it, if it comes to that. We should also be aware that there are lots of factual errors in the communications that have been circulated to the national bodies.

Disposition: The name change from 'Hungarian' to 'Old Hungarian' is accepted, but the block will be moved to the 4th edition of ISO/IEC 10646 to allow further technical review.

See relevant resolutions M61.01 on page 19 and M61.02 item a, on page 23.

T2 - Ireland requests the change of the name of the script from MENDE to MENDE KIKAKUI instead of just KIKAKUI (referring to document [N4396](#)).

(See also comment TE 2 from USA - the request is to change to KIKAKUI.)

Based on side discussions the compromise was to change the name to MENDE KIKAKUI.

Disposition: Accepted. Block 1E800...1E8DF; the block name and character names are changed from 'MENDE' to 'MENDE KIKAKUI'. Note that this also requires a change to the Amendment title.

See relevant resolution M61.01 on page 19.

E.1 - Ireland requests to change the glyph of COMBINING OLD PERMIC LETTER ZATA so that it centres better over the dotted circle.

Disposition: Accepted.

E.2 - Ireland requests informative notes for 165BE and 165BF.
Disposition: Accepted.

As a result of the above disposition, Ireland changed its vote to Yes.

6.4.3 Japan: "Yes" with comments

E1 - Japan points out the title has 'Old Hungarian' instead of 'Hungarian'.
Disposition: Hungarian ad hoc discussion decided to change the name back to 'Old Hungarian' and move the script out of Amendment 2 to fourth edition ballot. This would make the comment not applicable any more.

E2 and E3 were accepted.

T4 - Japan proposes changed wordings in Sub-clause 16.5 – CJK Compatibility Ideographs variation sequences towards clarifying use of VS-s with Compatibility Ideographs.

Mr. Michel Suignard: The VS-s are being used for something the Variation Selectors were not originally meant to be used for. They used for dealing with the Normalization side effects on compatibility ideographs. The proposed rewording of the bulleted item is OK. The Note is reworded to clarify and to address JP comments - a proposed rewording is provided.

Mr. Taichi Kawabata: The proposed rewording is OK.

Disposition: Accepted in principle.

The list item is reworded as (proposed):

- CJK Unified Ideographs. Each of these variation sequences corresponds to a CJK compatibility ideograph. Its specified appearance is that of the corresponding CJK compatibility ideograph.

Note 7 is reworded as:

NOTE 7 – All normalization forms replace CJK compatibility ideographs with the corresponding CJK unified ideographs, but leave the variation sequences unchanged (see 21). In contexts where normalization forms are used and the distinction between the CJK compatibility ideographs and CJK unified ideographs is desired, the usage of variation sequences is a mechanism to maintain that distinction. No equivalence between these variation sequences and the corresponding compatibility ideographs are defined. Conversion considerations are out of scope of this International Standard.

T5 - Japan proposes changed wording for Note 3 in Clause 18 Compatibility characters, along with the rationale.

Mr. Michel Suignard: It is not true that the VS-s are meant only for appearances, at least in case of Compatibility ideographs. A reworded Note 3 is proposed to address the concerns expressed by Japan.

Mr. Taichi Kawabata: The proposed rewording is OK.

Disposition: Partially accepted. The following reworded Note 3 is accepted:

NOTE 3 - Because compatibility ideographs are not preserved through any normalization forms, use of standardized variation sequences for CJK Unified Ideographs (see 16.5) may be preferred in contexts where normalization forms are used and the distinction between CJK compatibility ideographs and the corresponding CJK Unified ideographs needs to be preserved. In context where compatibility ideographs should be preserved normalization forms cannot be used.

T6 - Japan proposes new wording for Note 4 in Clause 21, along with the rationale for the rewording.

Mr. Michel Suignard: While acknowledging the concerns expressed by Japan, the proposed wording by Japan is sort of one-sided. The following rewording is proposed:

NOTE 4 - In all of four normalization forms, CJK Compatibility Ideographs are replaced with the corresponding CJK Unified Ideographs. Normalization, however, doesn't alter variation selectors, and variation sequences are preserved. Because of this, the use of standardized variation sequences for CJK Unified Ideographs over the CJK Compatibility Ideographs is preferred in the context of normalization (see 16.5).

Mr. Taichi Kawabata: The proposed rewording is OK.

Disposition: Partially accepted. Use the new wording proposed by the editor.

T7 - Japan points out that the new Siddham block may not be complete referring to the details in document N4407.

(US also has a similar comment TE1.)

Disposition: Noted. After some discussion, it was decided that the block can always be augmented pending further study. An ad hoc on Siddham met and recommended accepting the 6 variants in revised document N4407 for the 4th edition.

See relevant resolution M61.09 item a on page 44.

E8 - In the character names list in sub-clause 31.2, Japan points out an error and suggests replacing 'TILDE' with 'SWUNG DASH sign' in the text.

Disposition: Accepted.

E9 - Japan suggests adding an example of usage of the new sign (SWUNG DASH) in clause 31.2 EXAMPLE -- such as a name list entry for 1820 (MONGOLIAN LETTER A) into the example.

Disposition: Accepted.

T10 - Japan proposes use of a new REPLACEMENT CHARACTER (FFFD) in an IDS, instead of allowing use of PUA character as a Description Component (DC), for an ideograph that is not yet encoded in UCS. A rationale is provided for the request.

Mr. Michel Suignard: Korea has a similar comment K1. We had a long discussion on this topic at the last meeting. The comments from Japan and from Korea indicate uneasiness even though the use of the private use character in controlled environment is perfectly OK. Japanese suggestion of using Replacement Character just destroys the data. Use of private use character in IDS-s should not be disallowed.

Discussion:

- a. Mr. Taichi Kawabata: We should not encode component of ideograph with a private use character; they will not be used as independent characters at all.
- b. Dr. Lu Qin: The IRG has not used private use characters for exchange purposes within its own work. The Replacement Character may not convey any meaning, but it indicates a member body has to take a look at it.
- c. Mr. Michel Suignard: That is not my understanding of the situation.
- d. Sr. Lu Qin: We have machine checking only for those that have IDS-s. Before that they have to be edited.
- e. Dr. Umamaheswaran: We spent a lot of time at the last meeting, and accepted the change in wording. The private use character can be used for any interchange by Private Agreement. The standard was not allowing use of private use character in an IDS that could be used in Private Agreement. That is all that is being fixed without any other impact on existing PUA usage.
- f. Prof. Kyongsok Kim: No new characters will have IDS-s with private use characters, but there is already data with those. If two parties are exchanging these, there is no problem. But in an open interchange it should not be allowed.
- g. Mr. Peter Constable: I would like to know why a private use character could be misleading in an IDS within the context of a private agreement.
- h. Mr. Andrew West: If the information goes out of the private interchange it is broken.
- i. Dr. Ken Whistler: I would like to have a placeholder symbol to indicate an indescribable thing. FFFD is the wrong character to pick for that purpose. There could be any other character that is visually recognizable and can be described as a symbol for it. You may want to have another kind of extension for IDS. But the current standard definition is prohibiting use of PUA in IDS for those who want to use it in their environment. But the people come up and say, 'you are using an IDS with a private use character which is in violation of the standard'. No one is arguing that it is because IRG is using it.

- j. Dr. Lu Qin: As I said the IRG is not using private use for our purposes. It would be helpful to have a special symbol for a missing component .. such as 25A1 etc. (but it looks like a Chinese Mouse component). One can even just use a Question Mark. You could have a standardized method for an 'undescribed component'.
- k. Mr. Taichi Kawabata: FF1F' FULLWIDTH QUESTION MARK is suggested.
- l. Mr. Andrew West: Will this disappear in decompositions?
- m. Dr. Ken Whistler: If it is Canonical .. yes. If it is compatible etc. no loss.

Disposition: Partially Accepted.

We keep the current definition of allowing PU characters. Add a new bullet on special symbol (before PUA) - recommending FF1F - FULLWIDTH QUESTION MARK for indicating an 'undescribed component'.

See relevant resolution M61.01 on page 19.

6.4.4 Korea: Negative

T.1 - Korea proposes that PUA code points should not be allowed in IDS-s. Instead, the unencoded components should be either encoded, and have a public location where a list of these components and their glyphs (and a font) be made available for others to reference.

Mr. Michel Suignard: See also comment T.10 from Japan. We are already using several fragments in our Annex F that are not encoded. If others want to use the PUA code points for those we should not stop them. We should keep the current line on the PUA character, but add another bullet on using FF1F.

Disposition: Not Accepted.

(See discussion and disposition of comment on Japan T.10 above.)

Prof. Kyongsok Kim: We can accept the above disposition, in light of the recommendation to use FF1F.

Korea's vote changes to Acceptance.

6.4.5 USA: "Yes" with comments

TE.1 - The US requests the addition of the following 7 Siddham section marks to the Siddham block, currently under ballot, with glyphs and properties as shown on pages 9 and 10 of document N4336: Additional attestation in document N4391 is referenced.

115CB SIDDHAM SECTION MARK-2

115CC SIDDHAM SECTION MARK-3

115CE SIDDHAM SECTION MARK-5

115CF SIDDHAM SECTION MARK-6

115D0 SIDDHAM SECTION MARK-7

115D1 SIDDHAM SECTION MARK-8

115D4 SIDDHAM SECTION MARK-11.

(See also comment T.7 from Japan on the same block.)

(Siddham ad hoc - see ad hoc report in document N4460 - considered the above and other contributions.)

Disposition: Accepted in principle.

The above were accepted along with a superseded list in document N4457 containing more characters and new names, but for inclusion in the 4th edition instead of Amendment 2.

See relevant resolution M61.09 item b on page 44.

TE.2 - The US requests changing name of script and the characters in Mende block from Mende to Kikakui with rationale provided in document N4396.

(See also comment T.2 from Ireland).

Disposition: Accepted in principle.

See disposition of comment for T.2 from Ireland. After some discussion the name was changed from 'Mende' to 'Mende Kikakui'. The title of the Amendment is also affected.

See relevant resolution M61.01 on page 19.

TE.3 - The US requests the UCS glyph for U+1F3AC CLAPPER BOARD be reverted back to the glyph with the lines, to reflect more closely the Emoji symbol used in Japan.
Disposition: Accept - reverting to the old glyph (with the lines inside).

E.1 - US points out that the title for the amendment still reads "Old Hungarian' instead of 'Hungarian'.
See also comment E.1 from Japan.

Disposition: Hungarian ad hoc discussion decided to change the name back to 'Old Hungarian' and move the script out of Amendment 2 to fourth edition ballot. This would make the comment not applicable any more.

E.2 - US proposes correcting the wording of text in section 16.5 "Variation selectors and variation sequences" of the 3rd edition should be adjusted, adding "canonical" before "decomposable base character".

Mr. Michel Suignard: Some rewording is required. Some VS use decomposable base characters, but never canonically. We have to clarify this.

Disposition: Accepted. The reference in US comment should have been UCSVariants.txt, An example of a base that can decompose (never canonically, though) will also be added - 24C2 FE0E; text style; # CIRCLED LATIN CAPITAL LETTER M.

With the above dispositions, all the national ballot responses become 'Yes'.

Relevant resolution:

M61.01 (Disposition of ballot comments and progression of Amd. 2): WG2 accepts the disposition of DAM 2 ballot comments in document [N4453](#). The following significant changes are noted:

- A7AE LATIN SMALL LETTER INVERTED ALPHA is moved to code position AB64.
- A7AF LATIN LETTER SMALL CAPITAL OMEGA is moved to code position AB65 and renamed to GREEK LETTER SMALL CAPITAL OMEGA.
- Rename 115C4 from SIDDHAM SEPARATOR-1 to SIDDHAM SEPARATOR DOT.
- Rename 115C5 from SIDDHAM SEPARATOR-2 to SIDDHAM SEPARATOR BAR.
- In the block name and all character names in the block 1E800..1E8DF - replace MENDE with MENDE KIKAKUI.
- Move 'Hungarian' out of Amendment 2 into the 4th edition changing its name back to 'Old Hungarian'.
- Remove 'Old Hungarian' from the title page of the Amendment.
- Addition of a new bullet and associated text on use of FF1F to indicate an 'undescribed component' in an Ideographic Description Sequence in Annex I.1.
- Addition of 20BC MANAT SIGN, with its glyph from document [N4445](#).

WG2 further instructs its project editor to prepare and to forward the final text of Amendment 2 to the 3rd Edition, along with the final disposition of comments (document N4453) to the SC2 secretariat for processing as an FDAM ballot. The final code positions, glyphs and names are in the charts in document [N4458](#).

7 WG2 matters

7.1 Possible ad hoc meetings

The following possible ad hoc topics were identified:

- Middle Dot - Monday lunch time; Messrs. Andrew West, Michael Everson, Peter Constable, Ken Whistler, Michel Suignard, Dr. Deborah Anderson and Ms. Lisa Moore.
- Latvian Letters - Tuesday (Ms. Lisa Moore to send docs to Mr. Michel Suignard)
- Tangut - Tuesday lunch time.
- Nushu - Wednesday lunch time.
- Lithuanian sorting (OWG SORT) will meet Tuesday AM.
- Siddham - Wednesday 9 am.

7.2 Summary of voting for CD ballot of ISO/IEC 10646 4th edition

Input document:

[4398](#) Ballot Results – CD 10646 4th edition; SC2 Secretariat; 2013-03-25 (SC2 N4275)

22 SC2 member bodies responded and 6 did not. 15 had approved; 2 (Ireland and the USA) had disapproved and 5 had abstained. China, Egypt, and Japan had commented with their approvals.

7.3 Disposition of ballot comments on CD of ISO/IEC 10646 4th edition

Input documents:

[02n4268](#) (Folder) Text of CD 4th edition; SC2 secretariat; 2012-11-21

[4425](#) Proposed disposition of comments for CD 4th edition; Michel Suignard; 2013-05-08

Supporting input documents which were covered during the discussion of disposition of comments:

[3678](#) On the proposed U+A78F LATIN LETTER MIDDLE DOT; Anderson/USNB; 2009-08-05

[4173](#) IRG Errata Report (IRG N1838); IRG – Qin Lu; 2011-11-10

[4339](#) Examples of Collation Tailoring for U+00B7 MIDDLE DOT – related to PDAM 2.2; Ken Whistler; 2012-09-21

[4340](#) Comments in Response to Irish Comments on Middle Dot- related to PDAM 2.2; Ken Whistler; 2012-09-28

[4374](#) Old Hungarian ad-hoc group report; Hungarian ad-hoc group – Michel Suignard; 2012-10-25

[4395](#) Revised Proposal to Encode Additional Old Italic Characters; UC Berkeley SEI: Christopher C. Little; 2012-11-06

[4441](#) Anatolian RA or RI (canonical decomposition); Deborah Anderson (SEI); 2013-05-31

ISO/IEC Directives Part 2: 2011: http://www.iec.ch/members_experts/refdocs/iec/isoiec-dir2%7Bed6.0%7Den.pdf.

Output document:

[4454](#) Final disposition of comments on CD 4th edition; Michel Suignard; 2013-xx-xx

7.3.1 China: "Yes" with comments

T1 - China requests changing G source of 3828 from GHZ-10810.02 to GHZ-10810.03 according to Hanyu Da Zidian.

(See also comment T.45 from Japan.).

Mr. Michel Suignard: The issue is duplicate GHZ source between 3828 and 21FE2. Both are RS 46.25, Kangxi 0323.161 and for now GHZ 10810.02. The glyphs are very different. I mined the 'KIRGHanyuDaZidian field' of Unihan database to populate the GHZ numeric reference that did not exist before (it was simply GHZ). Evidences suggest that original Unihan GHZ data concerning 3828 was in error and should have been 10810.03 instead of 10810.02.

Disposition: Accepted. Unihan data needs correction.

Action Item: Mr. Peter Constable to take note and advise Unicode Technical Committee of the needed correction in Unihan database.

T2 - China suggests removing G source of 400B and keep its T source. Both 400B and 2A279 have G source GHZ-74611.05, the latter glyph is correct according to Hanyu Da Zidian.

(See also comment T.45 from Japan.).

Mr. Michel Suignard: The issue is duplicate GHZ source between these two characters. The GHZ numerical reference for 400B came from Unihan, the GHZ reference for 2A279 came from IRG. The characters have different RS (108.16 versus 197.10) and Kangxi (0798.171 versus 1507.311). The only visual difference between the two glyphs is that the low 'Dish' component 𠄎 is either spanning the whole cell or the second half. We should accept removing the GHZ source for 400B.

Dr. Lu Qin: They are different by looking at the 'Dirt' component, and not the 'Dish' component.

Disposition: Accepted.

T3 - China suggests removing the GHZ as the G source, but keep its T and J sources, for 3ABF, because it is not found in Hanyu Da Zidian.

(See also comment T.45 from Japan.).

Mr. Michel Suignard: There were never any numerical GHZ references for 3ABF, either from Unihan or IRG.

Disposition: Accepted.

7.3.2 Egypt: "Yes" with comments

T.1 - Egypt proposes changing the names of ranges of Arabic characters to reflect what is used by the native Arabic speakers, to facilitate the understanding of these characters by all Arabic-speaking users. For example: all Arabic letter BEH occurrences with BA¹.

Disposition: Not accepted. The proposed changes cannot be done in the standard for two reasons:

- the conventions in sub-clause 24.2 for naming of characters prohibit use of an Apostrophe in the name, and,
- once the character name is standardized they cannot be changed per clause 7 of the standard.

It is also to be noted that the charts contain the following introductory text above the set of names for the main Arabic block 0600-06FF:

Arabic letter names follow romanization conventions derived from ISO 8859-6. These differ from the Literary Arabic pronunciation of the letter names. For example, U+0628 ARABIC LETTER BEH has a Literary Arabic pronunciation of ba'.

T2 - Egypt requests additional Arabic mathematical operators and symbols, indicating that a separate proposal will be made in the future with the details for those.

Disposition: Noted. WG2 will await Egypt's proposal for these characters.

7.3.3 Ireland: Negative.

T1 - Ireland reiterates its support for the encoding of the character at A78F and opposes further attempts to delay or prevent the encoding of this character. Ireland has summarized the background and the rationale for its position.

(See also comment TE1 from USA.)

Mr. Michel Suignard: We have again two strongly expressed opposing views. I would like to draw your attention to document [N4340](#) from the US, containing detailed responses to many of Ireland's points.

Mr. Michael Everson: Ireland did not take into account comments from [N4340](#). Ireland withdraws the last two paragraphs in our comment T1.

(after an ad hoc discussion)

Discussion:

- a. Dr. Ken Whistler: There is no sign anyone is going to change their opinion. You have heard my personal opinions.
- b. Mr. Michael Everson: My suggestion is to keep the character in the ballot.
- c. Mr. Michel Suignard: Could the US live with it being in the standard.
- d. Dr. Ken Whistler: One of the concerns we have is that this dot should not be confused with the Catalan middle dot etc. The Fatter the Dot is, it is less likely to be picked up.
- e. Mr. Michael Everson: You can have its glyph bigger, and positioned such that it does not get confused with Catalan dot. We can make the size of the dot larger.
- f. Dr. Ken Whistler: As long as negative feedback does not come back from the user community.
- g. Mr. Andrew West: It is OK to have a bigger size.
- h. Dr. Ken Whistler: LATIN LETTER SINOLOGICAL DOT is the proposed name. We will not say anything about GLOTTAL etc.

Disposition: Name of A78F is changed to LATIN LETTER SINOLOGICAL DOT; the glyph is changed to be a larger and raised Dot.

See relevant resolution M61.02 item c on page 33.

Mr. Michael Everson: Ireland is grateful to the US national body's graciousness.

T2 - Ireland requests moving A7AE and A7AF to AB60 and AB61 respectively, with unchanged names.

Mr. Michel Suignard: These characters are from Amendment 2 and are coded at A7AE and A7AF. Ireland has not provided any rationale for their request.

Discussion:

- a. Mr. Michael Everson: We are suggesting these to be moved with the Phonetic characters like other Teutenista characters. The current AB block does not have case pairs. There are other singletons in this block too.

- b. Mr. Peter Constable: The UTC has accepted some characters in the range AB60--AB63. The new code positions for these two characters should be: AB64 LATIN SMALL LETTER INVERTED ALPHA, and, AB65 LATIN LETTER SMALL CAPITAL OMEGA.

Disposition: Accepted in principle. The new code positions will be:
AB64 LATIN SMALL LETTER INVERTED ALPHA
AB65 LATIN LETTER SMALL CAPITAL OMEGA,
and will be included in FDAM2 along with earlier comment in DAM2.
See relevant resolution M61.01 on page 19.

T3 - Ireland requests deletion of 108F9, 108FA and 108FB, and moving 108F8 to 108FB in the Hatran block.

Mr. Michel Suignard: The range for the four Hatran numbers One to Four in Irish comment submitted was 108F9 .. 108FC and is corrected to 108F8 ..108FB. Some rationale for the request would be useful.
Disposition: Accepted. Move down 108F8 to 108FB, leaving 3 vacated positions 108F8..108FA unassigned.

T4 - Ireland would like to note that it would not oppose a change of the script name for row 10C8 from "Hungarian" to "Szekely-Hungarian" or "Szekler-Hungarian", with reference to ISO/IEC JTC1/SC2/WG2 [N4374R](#) "Old Hungarian/Szekely-Hungarian Rovas Ad-hoc Report".

Mr. Michel Suignard: The Irish comments for the CD ballot is a subset of comment T.1 for Amendment 2 ballot. Ireland is the only national body making any comments on Hungarian. All others including the Hungarian national body have accepted 'Hungarian' as the name of the script.

See ad hoc discussion and disposition under Amendment 2 - see section 6.4.2 on page 13.
Disposition: Accepted in principle. The name change from 'Hungarian' to 'Old Hungarian' is accepted, but the block will be moved from Amendment 2 to the 3rd edition to the 4th edition of ISO/IEC 10646 to allow further technical review.
See relevant resolutions M61.01 on page 19 and M61.02 item a, on page 23.

T5 - Ireland requests the change of two character names:
115C4 SIDDHAM SEPARATOR-1 to SIDDHAM SEPARATOR DOT, and,
115C5 SIDDHAM SEPARATOR-2 to SIDDHAM SEPARATOR VERTICAL BAR
that better describe the shapes of the characters:

Mr. Michel Suignard: These characters are also from Amendment 2. The name 'DOT' would be acceptable with the description in document [N4294](#), and by association the 'VERTICAL BAR' also.
Discussion:

Dr. Deborah Anderson: Why 'Vertical Bar'?

Mr. Michael Everson: Because ASCII bar is called Vertical Bar.

- a. Dr. Ken Whistler: There are Dots and Bars etc.

Disposition: Accepted in principle - but to be incorporated in Amendment 2 (and reflected in 4th edition):
New names: 115C4 SIDDHAM SEPARATOR DOT, and 115C5 SIDDHAM SEPARATOR BAR (not Vertical Bar).

See relevant resolution M61.01 on page 19.

T6 - Ireland requests that the gap at 124D2 be closed up by moving the following characters up one position, in the Early Dynastic Cuneiform block (row 1248).

Mr. Michel Suignard: This is a comment against additions in Amendment 2.

Discussion:

- a. Mr. Michael Everson: It is not in Amendment 2. It is in the CD.
b. Dr. Umamaheswaran: Is there any harm in keeping the hole?
c. Mr. Michael Everson: It is better to close up the gap .. with sorting runs etc. We do not want to insert anything there.
d. Dr. Ken Whistler: It is better for us to do it once rather than 25 engineers doing these over again.

Disposition: Accepted. Move up 124D3..12544 to 124D2..12543, in block 12480..1254F.
See relevant resolution M61.02 item d, on page 33.

T7 - Ireland requests annotations on 144A0, 14546, 14562 and 145A4 indicating their decompositions. Mr. Michel Suignard: The proposed annotations indicate canonical decompositions. There are already three other similar canonical decomposition annotations on 144F0, 145B9, and 145F8 in this block. They will have implications due to normalization, which is a normative aspect of the standard. We should perhaps either make these compatibility decompositions or plain annotations. We may also want to consider making (by renaming and changing the glyph by removing the dotted circle) 145B1 ANATOLIAN HIEROGLYPH A383 COMBINING RA OR RI, to just RA OR RI without 'COMBINING' in its name.

An ad hoc met on the subject with the following recommendations:

- there will not be Canonical decompositions
- the annotations / cross references will be different from what is suggested
- there will be impact on annotations on other characters containing canonical decompositions.

Disposition: Accepted in principle. These proposed canonical decompositions will be modified into cross references. Similarly, the existing canonical decomposition for 144F0, 145B9, and 145F8 will also be modified into cross references.

E1 - Ireland requests a change to the glyph of HATRAN LETTER RESH so that it looks more like HATRAN LETTER DALETH.

(see related comment TE3 from US).

Mr. Michel Suignard: The related US comment requests unification of RESH with DALETH with a new name DALETH RESH. In light of this the Irish comment could become irrelevant.

Discussion:

- a. Dr. Ken Whistler: The US has proposed that these - RESH and DALETH be not disunified. The situation is comparable to other archaic Semitic scripts before dots came to be added to them. In the inscriptions, there is no systematic distinction between Resh / Daleth sounds, but not in writing; similar to early Arabic material with unambiguous letters in writing. Dots come in later on to disambiguate. In Hatran, the Resh and Daleth are not distinguished in written form. Our interpretation is that we should not distinguish these graphically because the representation of material becomes problematic,
- b. Mr. Michael Everson: What I am worried about is that we do have an alphabet text showing both. The solution could be removing one and leaving a hole. If we do find later we can add into the hole. We can name the unified character as DALETH-RESH.
- c. Dr. Ken Whistler: If we later discover that there is something else to distinguish we can add.
- d. Mr. Michael Everson: Ireland withdraws this comment.

Disposition: (Note that the US Comment TE 3 is also addressed by above discussion.) 108E3 is renamed to HATRAN LETTER DALETH-RESH; 108F3 is deleted; hole is kept.

See relevant resolution M61.02 item f, on page 33.

E2 - Ireland requests that the size of the glyphs in Meroitic Cursive block (Row 109A) be reduced in size so that they fit better in the code chart cells.

Disposition: Accepted.

E3 - Ireland requests the correction of the encoding error in the informative note to 111CC in the Sharada block.

(See also comment E.2 from US.)

Mr. Michel Suignard: This was a production issue - UTF-8 versus Latin-1.

Disposition: Accepted.

E4 - Ireland requests the addition of the dotted circle in the glyph for 145B1 ANATOLIAN HIEROGLYPH A383 COMBINING RA OR RI.

Disposition: Not accepted. It looked initially like correcting the glyph to reflect that the character name had COMBINING in it. After further discussion among experts and result of disposing comment T7 from

Ireland, and discussion of document [N4441](#), it was decided to not add a dotted circle and change the name of 145B1 to ANATOLIAN HIEROGLYPH A383 RA OR RI.

E5 - Ireland requests the correction of the encoding error in the informative notes to the Anatolian Hieroglyphs block (row 1440).

(See also comment E.2 from US.)

Mr. Michel Suignard: This was a production issue - UTF-8 versus Latin-1.

Disposition: Accepted.

Mr. Michael Everson: Ireland reverses its vote to YES, based on the above dispositions of comments.

7.3.4 Japan: "Yes" with comments

E1 - Japan points out and requests removal of an extra dash in the title before clause 1.

Disposition: Accepted.

T2 - Japan requests changing "DELETE, FORM FEED, ESC" to "DEL, FF, ESC"... in the Note under sub-clause 4.18; provides a rationale for the request.

Disposition: Not accepted. While ISO/IEC 6429 may have names for control functions, which are listed in Note 2 in clause 11 of the standard, ISO/IEC 10646 control characters do not have names (per sub-clause 6.4).

E3 - Japan proposes adding missing reference to F.2.4 in sub-clause 4.2.1, by replacing "See F.2.2 and F.2.3" with "See F.2.2, F.2.3 and F.2.4."

Disposition: Accepted.

E4 - Japan proposes replacing "normalization form NFC" with "normalization form C" in sub-clause 4.25.

Disposition: Accepted in principle. The text "normalization form NFC" will be changed to "Normalization Form C (NFC)".

E5 - Japan proposes replacing "normalization form NFC" with "normalization form C" (also) in Note 2 of sub-clause 4.25.

Disposition: Accepted in principle. The text "normalization form NFC" will be changed to "Normalization Form C (NFC)".

E6 - Japan proposes removing the erroneous extra "x" (one per a cell) from the upper left, upper right, and the lower left cells in Table 4 under sub-clause 9.2,

Disposition: Accepted.

T7 - Japan proposes adding the following paragraph between the first and last paragraphs of 10.7, to include the missing signature-related information for UTF-32 (similar to UTF-16 information):

In the UTF-32 encoding scheme, the initial signature read as <00 00 FE FF> indicates that the more significant octets precede the less significant octets, and <FF FE 00 00> the reverse. The signature is not part of the textual data.

Disposition: Accepted.

T8 - Japan proposes inserting "and a UCS encoding scheme (see 10)" after "the identification of a UCS encoding form (see 9)", to be consistent with the text under the listed designation sequences, in sub-clause 12.2.

Disposition: Accepted in principle. In addition, change 'form' to 'scheme' in the first paragraph and title, since an encoding form implies an encoding scheme. (See also disposition for T10 from Japan).

E9 - Japan proposes correcting in Note 1 in sub-clause 12.2:

"ESC 02/05 02/15 04/00, ESC 02/05 02/15 04/01, ESC 02/05 02/15 04/03, ESC 02/05 02/15 04/04, 02/05 02/15 04/07, 02/05 02/15 04/08, 02/05 02/15 04/10, 02/05 02/15 04/011"

to (fixing missing ESC character and extra 0 in 011 at the end):

"ESC 02/05 02/15 04/00, ESC 02/05 02/15 04/01, ESC 02/05 02/15 04/03, ESC 02/05 02/15 04/04, ESC 02/05 02/15 04/07, ESC 02/05 02/15 04/08, ESC 02/05 02/15 04/10, ESC 02/05 02/15 04/11".

Disposition: Accepted.

T10 - Japan points out some problems with Note 2 regarding use of ESC 02/05 04/07 sequence under sub-clause 12.2 and suggests some alternative remedies.

Mr. Michel Suignard: The text of this note was supposed to be part of the normative text of the standard, and remained as a note over the years. The proposed wording changes do not quite clarify the situation. Some additional text about 'no padding is needed' for UTF-8.

Disposition: Accepted in principle. The text of sub-clauses 12.2 and 12.5 will be reworded (including changes for disposition for comment T8 from Japan). See the final wording in the final disposition of comments document [N4454](#), page 10.

G11 - Japan points out some confusion with current text and proposes rewording and reorganizing the text of sub-clause 16.5 on Variation selector sequences.

Mr. Michelle Suignard: We can accept the reorganization and rewording. The proposed wording for a standardized variation sequences needs to be refined to reflect use of variation selectors from different blocks in addition to the two variation selector blocks.

Disposition: Accepted in principle.

See final wording of sub-clause 16.5.1 in final disposition of comments document [N4454](#), page 12.

E12 - Japan requests correcting text in list items in sub-clause 16.5, by replacing "variation selector sequences" with "variation sequences" (removing "selector") for Phags-Pa and CJK Unified Ideographs entries.

(Same as comment E3 from Japan for Amendment 2 ballot).

Disposition: Accepted.

T13 - Japan proposes rewording of text regarding the list item in sub-clause 16.5 for CJK Compatibility Ideographs variation sequences to clarify their purpose, and moving the non-normative part to be merged and reworded with the current text of Note 7.

(Same as comment T4 from Japan for Amendment 2 ballot).

Disposition: Partially accepted. See disposition for comment T4 for Amendment 2 ballot on page 16.

T14 - Japan proposes changed wording for Note 3 in Clause 18 Compatibility characters, along with the rationale.

(Same comment as T5 from Japan for Amendment 2).

Disposition: Partially accepted. See disposition of comment T5 for Amendment 2 on page 16.

T15 - - Japan proposes new wording for Note 4 in Clause 21, along with the rationale for the rewording. (Same as comment T6 from Japan for Amendment 2 ballot.)

Disposition: Partially accepted. See disposition of comment T6 from Japan for Amendment 2 on page 16.

E16 - Japan proposes to insert the words "in the format" between the describing text and the regular expression in each item in the 2nd list of source references for pictographs in sub-clause 22.4 -- for example:

1st field: UCS code point or sequence, in the format (hhhh | hhhhh) (<space> (hhhh | hhhhh))*

Mr. Michel Suignard: It may be needed also in similar descriptions in sub-clauses 23.2 and 23.4. It is used in UTF-8 notation in Unicode RegEx document.

Disposition: Accepted.

T17 - Japan proposes correcting "a decimal unit" to "a hexadecimal unit" in the definition of 'h' used in the format definition for source references, in sub-clause 22.4.

Disposition: Accepted.

T18 - Japan proposes clarifying the use of * in the regular expression in the list of pictographs in sub-clause 22.4, by addition of the following sentence at the end of the paragraph: An ASTERISK indicates zero, one, or more iteration of the preceding pattern.

Disposition: Accepted.

(See also discussion in section 10.4.3. on page 51 on changing the data format for CJK sources.)

E19 - Japan requests the Chinese name for the GCYY source in sub-clause 23.1 be verified and corrected if in error - a change is also suggested. Chinese national body should be consulted.

Mr. Chen Zhuang: China agrees - add the two missing ideographs before the last three ideographs. It can be verified from their web site <http://casm.ac.cn>.

Disposition: Accepted.

E20 - Japan suggests changing "The following figure" to "Figure 2" in the 1st paragraph in sub-clause 23.3.1, to be aligned with ISO/IEC Directives.

Disposition: Accepted in principle. We should be following ISO Directives.

The two sentences in the first paragraph are changed as follows (eliminating the use of 'Figure'):

For the presentation of the CJK UNIFIED IDEOGRAPH block, the graphic representations for the Hanzi G, H, and T sources, the Kanji J source, the Hanja K source, and the ChuNom V source are shown in that order when present.

E21 - Japan suggests changing "The following figure" to "Figure 2" in the second paragraph in sub-clause 23.3.1, to be aligned with ISO/IEC Directives.

Disposition: Accepted.

E22 - Japan suggests changing "The following figure" to "Figure 3" in the first paragraph in sub-clause 23.3.2, to be aligned with ISO/IEC Directives.

Disposition: Accepted in principle.

The first paragraph two sentences are changed as follows (avoiding use of 'The following figure ..'):

For the presentation of the CJK UNIFIED IDEOGRAPH EXTENSION A block, up to three sources per characters are represented in a single row.

E23 - Japan suggests changing "The following figure" to "Figure 3" in the second paragraph in sub-clause 23.3.2, to be aligned with ISO/IEC Directives.

Disposition: Accepted.

E24 - Japan suggests changing "The following figure" to "Figure 4" in the first paragraph in sub-clause 23.3.3, to be aligned with ISO/IEC Directives.

Disposition: Accepted in principle.

The first paragraph two sentences are changed as follows (avoiding use of 'The following figure ..'):

For the presentation of the CJK UNIFIED IDEOGRAPH EXTENSION B block, the first graphic symbol shows the glyph used for the first and second edition of this International Standard (2003 and 2011 respectively) referenced by a 'UCS2003' notation.

E25 - Japan suggests changing "The following figure" to "Figure 4" in the second paragraph in sub-clause 23.3.3, to be aligned with ISO/IEC Directives.

Disposition: Accepted.

E26 - Japan suggests changing "The following figure" to "Figure 5" in the first paragraph in sub-clause 23.3.4, to be aligned with ISO/IEC Directives.

Disposition: Accepted in principle.

The first paragraph two sentences are changed as follows (avoiding use of 'The following figure ..'):

For the presentation of the CJK UNIFIED IDEOGRAPH EXTENSION C, D, and E block, up to two sources per characters are represented in a single row.

E27 - Japan suggests changing "The following figure" to "Figure 5" in the second paragraph in sub-clause 23.3.4, to be aligned with ISO/IEC Directives.
Disposition: Accepted.

E28 - Japan suggests correcting "CJK COMPATIBILITY block" to "CJK COMPATIBILITY IDEOGRAPHS block" in the Note in sub-clause 23.5.
Disposition: Accepted.

E29 - Japan suggests changing "The following figure" to "Figure 6" in sub-clause 23.5, to be aligned with ISO/IEC Directives.
Disposition: Accepted.

T30 - Japan suggests adding the following, to recognize that characters can have normalized aliases, to the end of the sentence "Each entity named in this standard shall be given only one name.":
"... with an exception that a character may be given two or more names; one character name and one or more character name aliases."
Disposition: Not accepted. The character name alias is not a character name, it is an alias. Furthermore, single character name is a strong tenet within ISO/IEC 10646 (see clause 7). However, the description of the single name can be clarified as follows:
Each entity named in this standard shall be given only one name. However, one or more character name aliases may also be associated with a character.

T31 - Japan points out that the term 'medial HYPHEN-MINUS' used in Note 1 in sub-clause 24.5.4 is not defined in any normative part of the standard, and requests either it should be defined under Terms and Definitions or move the text out of Note 1 (deleting Note 1) into the text of the sub-clause.
Disposition: Accepted. The text of Note 1 will be moved into the first paragraph of the sub-clause; the term is not used anywhere else in the standard.

E32 - Japan requests replacing the "1), 2) .." in the first level of the list under sub-clause 24.7 with "a), b) .." to follow ISO/IEC Directives. All references to these list items by numbers (such as references to steps 1 to 4 in current list item 7) should be replaced with the corresponding replacement letters.
Disposition: Accepted.

E33 - Japan points out that the paragraph before list item 7) is not part of list item 6). Suggests un-indenting the paragraph as a possible solution.
Disposition: Accepted in principle. The paragraph will be moved up to (as an un-indented paragraph) after the first paragraph of the sub-clause before the start of the list.

T34 - Japan proposes changing 'additional information' to 'annotation' in the Example list item 8) in sub-clause 24.7, to be consistent with usage of 'annotation' elsewhere, and matching with the title of clause 24.
Disposition: Accepted.

T35 - Japan proposes changing 'additional information' to 'annotation' in the title of Table 5 in sub-clause 24.7, to be consistent with usage of 'annotation' elsewhere, and matching with the title of clause 24.
Disposition: Accepted.

E36 - Japan proposes replacing "normalization form NFC" with "normalization form C" in the second paragraph of clause 25.
Disposition: Accepted in principle. The text sequence "normalization form NFC" will be replaced by "Normalization Form C (NFC)".

G37 - Japan points out that figures 7 to 12 in clauses 26 to 30 show block names - but some are abbreviated, and suggests adding a note to each of the figure like: 'NOTE Block names in the figure may be abbreviated due to the space limitations. See A.2 for unabbreviated names.'

Disposition: Accept in principle. The note will be added to figures 7 to 11. Figure 12 does not need it.

E38 - Japan proposes correcting 'compatibility CJK ideographs' to 'CJK compatibility ideographs' in the second paragraph in clause 28.

Disposition: Accepted.

T39 - Japan proposes changing "except the CJK UNIFIED IDEOGRAPHS blocks and the HANGUL SYLLABLES block" to "except blocks for CJK ideographs and Hangul syllables." In the second paragraph of clause 31, to reflect that the CJK Compatibility Ideograph block also does not have a character names list.

Disposition: Accept in principle. The new text will be "except blocks for CJK ideographs and Hangul syllables."

T40 - Japan proposes adding the sentences "Code charts for CJK ideographs have different formats. See Clause 23.", as a second paragraph in sub-clause 31.1, to point out that they are different.

Disposition: Was accepted in principle, pending disposition of comment E41 - whether to use 'See 23' or 'See Clause 23'; decided that it would be See Clause 23. Accepted.

E41 - Japan points out that ISO/IEC Directives, Part 2, 2011, section 6.7.3.1, though has some ambiguous wording, is understood to mean .. use 'Clause X' when referring to clause x. Accordingly it requests changing 'See 13.' To 'See Clause 13.' In the Note in sub-clause 31.1.

Mr. Michel Suignard: Apparently references to its own major clauses in an ISO standard are rare. Sub-clauses are referenced. The ISO/IEC directives have no example of references to major clauses. If this request is accepted by WG2, the whole document should be checked and modified as needed.

References to sub-clauses are already in accordance with the directives.

Disposition: Accepted. Use 'See Clause 13' and not 'See 13' (based on opinions expressed around the table).

T42 - Japan proposes to change "Subheads grouping various subsets" to "Subheads grouping various parts" in the second item of the second list in sub-clause 31.2; the term 'subset' has specific meaning per Clause 8 of the standard.

Disposition: Accepted.

E43 - In the character names list in sub-clause 31.2, Japan points out an error and suggests replacing 'TILDE' with 'SWUNG DASH sign' in the text.

(Same as comment E8 from Japan for Amendment 2 ballot.)

Disposition: Accepted.

E44 - Japan suggests adding an example of usage of the new sign (SWUNG DASH) in clause 31.2

EXAMPLE -- such as a name list entry for 1820 (MONGOLIAN LETTER A) into the example.

(Same as comment E9 from Japan for Amendment ballot.)

Disposition: Accepted in principle. Based on convenience another example than 1820 may be chosen.

T45 - Japan brings WG2's attention to IRG's finding related to errors in CJKU_SR.txt that would be reported by Chinese national body for two deletions and a modification of G-source involving 3828, 3ABF and 400B code points in the standard - referencing sub-clause 31.3.

Note: the defects were identified in China's comments T.1, T.2 and T.3.

Disposition: See discussion and dispositions for comments T1, T2 and T3 from China, in section 7.3.1 on page 20. All the proposed changes were accepted.

E46 - Japan requests the missing appropriate glyph for K2-6F42 source for 9A3A be added.

Mr. Michel Suignard: The font used seems to be missing the glyph. Korea should take note of the missing glyph in their V.50 font. We will use a previous version of the font.

Disposition: Accepted.

G47 - Japan points out that the layout of text in sub-clauses F.1 through F.8 is confusing. Cites an example of the problem. Suggests reorganizing the text in Annex F, with a suggested rewording for sub-clause F.1.1.

Disposition: Partially accepted. The editor will reword the text to address concerns expressed by Japan. See page 22 in the final disposition of comments document [N4454](#).

E48 - Japan points out there are Note 2 and Note 3 but no Note 1 in sub-clause F.1.1.

Disposition: Accepted in principle. The reworded text to address G47 fixes this.

E49 - Japan proposes changing "The use of these characters is discouraged." to "These characters should not be used." in sub-clause F.2.1; the word 'discouraged' is inappropriate per ISO Directives.

Disposition: Accepted in principle. The characters are not format characters and will be removed from the annex.

T50 - Japan proposes moving "0605 ARABIC NUMBER MARK ABOVE" to the list in sub-clause F.4 and removing sub-clause F.5, updating the following clause numbers accordingly; the rationale for the proposal is explained.

Mr. Michel Suignard: There is a typo in F.5 -- 'is used to supertend' should be 'is used to subtend'. The word 'supertend' is also not common. 070F is already in the list of subtending characters. I propose to rewrite the last paragraph of F.4 as follows:

The scope of these characters and more details about their usage can be found in the Unicode Standard (see Annex M for referencing information).

Disposition: Accepted in principle.

E51 - Japan proposes adding a new clause title "F.6 Shorthand format characters", changing the current F.6 and F.7 as F.6.1 and F.6.2, to group the shorthand related characters together.

Disposition: Accepted in principle. Merging the two sub-clauses is OK. There is no need for creating the subgroups.

T52 - Japan proposes replacing SPACE with space in the text ... "where punctuation or SPACE may be omitted" in sub-clause F.8, to avoid mis-interpreting SPACE as the specific character 0020, since that was not meant in this context.

Disposition: Accepted in principle.

A new title and introduction, inspired from the Unicode Standard 6.2 section 15.6, will be added as follows:

F.8 Invisible Mathematical operators

In mathematics, some operators and punctuation are often implied but not displayed. Special format control characters known as invisible operators can be used to make such operators explicit for use in machine interpretation of mathematical expressions.

E53 - Referencing different style guidelines from ISO/IEC Directives regarding notes and referencing them in a table, Japan proposes the following changes for Table I.1:

Remove an asterisk "*" from the "Relative positions of DCs" column of the bottom row. Remove an asterisk before the word "NOTE" of the NOTE.

Insert "In IDC-OVL, " at the beginning of the NOTE.

Enclose the NOTE in a table border.

Disposition: Accepted (follow ISO/IEC directives).

T54 - Japan proposes use of a new REPLACEMENT CHARACTER (FFFD) in an IDS, instead of allowing use of PUA character as a Description Component (DC), for an ideograph that is not yet encoded in UCS. A rationale is provided for the request.

(Same comment as T10 from Japan for Amendment 2 ballot).

Disposition: See discussion and disposition for comment T10 from Japan for Amendment 2 on page 17.

E55 - Japan proposes, in Annex L, replacing all occurrences of the phrase "character names and named UCS Sequence Identifiers" with "character names and named UCS Sequence Identifier names", to correctly indicate it is the name associated with a 'named USI' that is meant.
Disposition: Accepted in principle. Use NUSI as an abbreviation, appearing at the first occurrence and use NUSI names in all subsequent occurrences.

E56 - Japan proposes replacing NOTE 1 to just NOTE in Annex L guideline 4, since there is only one NOTE.
Disposition: Accepted.

E57 - Japan proposes adding the missing appropriate glyph at the left-most column for the last item (LATIN CAPITAL LETTER U WITH OGONEK AND ACUTE), in the last line of the examples in guideline 4 of Annex L.
Disposition: Accepted in principle. The glyph is there - but is obscured by the glyph of the character in the previous line. The interline spacing will be increased to make it visible.

G58 - Japan suggests restructuring the text in Annex L to be in accordance with the ISO/IEC Directives.
Mr. Michel Suignard: This is unnecessary. And having lines such as 'L.3 Guideline 2' where the sub-clause and the guideline number are off by one seems awkward.
Mr. Taichi Kawabata: Agreed.
Disposition: Not accepted.

E59 - Japan proposes adding the following sentence before the sentence "National and ...". The sources are grouped by their categories, in the first paragraph of Annex M for clarifying that the entire Annex M is grouped by categories.
Disposition: Accepted.

E60 - Japan proposes changing heading "Egyptian Hieroglyphic" to "Egyptian Hieroglyph" in one of the headings in Annex M, to distinguish it as a script from a style of writing the Hieroglyphs.
Dr. Deborah Anderson: We should use the plural "Egyptian Hieroglyphs".
Mr. Michel Suignard: Sometimes the information in the standard is behind and out of synch with new additions.
Disposition: Accepted.

E61 - Japan proposes Change the hyphenation of "Prosvesh-chenie" to "Prosve-shchenie", in the third reference under the Glagolitic heading, removing the hyphenation.
Mr. Michel Suignard: The hyphenation is automatically generated and has its limitations when applied to transliterated words. For such words we have to prevent hyphenation.
Disposition: Accepted in principle.

T62 - With reference to the IRG Errata report regarding CJK-Ext B (document N4173) Japan points out that while 2 of the 25 errors have been dealt with elsewhere, 23 others still need to be addressed. Japan proposes some informative text for each of these 23 ideographs to be added to Annex P.
Disposition: Accepted in principle. Currently there is no mechanism for adding information on ideographs. The nameslist provides such a mechanism for non-ideographs. The editor will explore the most suitable format for including this information, possibly including the glyphs. Annex P is being recreated but only for Ideographs. Non-ideograph related information have all migrated to nameslist.

T63 - Japan proposes to include the following in Annex P, pointing out that this ideograph was omitted by mistake in the first version of the IRG errata report submitted to WG2 (document N4173) and has since been revised:

25B88

UCS2003 glyph for this code point was mistakenly designed

Disposition: Accepted in principle. Will be included with disposition to comment T62 from Japan above.

T64 - Japan proposes to add information (suggests some text) about 243BE in Annex P. In CJK-Ext B T7-2F4B has mistakenly dis-unified from 24381 and allocated to a separate code point 243BE; and the glyph for 243BE was wrong in ISO/IEC 10646-2:2001. The IRG recognized that this was an error, but the consensus in its Chongqing meeting was to keep 243BE's source reference to T7-2F4B.

Disposition: Accepted in principle.

Will be included in text to accommodate comment T62 from Japan above.

T65 - Japan proposes to change two occurrences of 'additional information' to 'annotation' in Annex R; the term 'annotation' is used in the title of clause 24 and elsewhere.

Disposition: Accepted.

T66 - Japan points out that the second pair of ideographs has the wrong glyph on the right side, changed from the 2nd edition (2011) version, in sub-clause S.1.5 item d). Both the correct and erroneous glyphs are shown in the comment. It was in error also in the 3rd edition.

Mr. Michel Suignard: Somehow images of old pdf to new pdf changed the glyph. This is dangerous and the editor cannot check all the ideographs. The PDF version will be down versioned to 1.4 for production version to correct the problem.

Disposition: Accepted.

E67 - Japan proposes correcting designation of the two notes under sub-clause S.1.6 to 'NOTE 1' and 'NOTE 2' from 'NOTE' and 'NOTE'.

Disposition: Accepted.

E68 - Japan proposes changing the title of sub-clause S.3 from 'Source code separation ...' to 'Source separation ...' - the latter being the current term we use for the standard.

Disposition: Accepted.

E69 - Japan proposes to correct a reference by changing "Identified at the beginning of this annex ...: to "identified in S.1.6", in the Note under sub-clause S.3.

Disposition: Accepted.

T70 - Japan proposes reverting the glyphs shown for example pairs and triples under sub-clauses S.3 and S.4 to those from 2003 edition, pointing out the differences do not convey what was used when CJK UNIFIED IDEOGRAPHS were first created. Illustrate the point with one example.

Mr. Michel Suignard: We have published several editions since 2003 and this issue has not been brought up till now. We have reversed glyph in other sub-clauses in Annex S wherever it mattered. The glyph outlines are much better looking than images of glyphs. Also these examples were done before the multi-column format for the ideograph charts and availability IRG sources fonts were available to the editor.

Disposition: Accepted in principle.

If real fonts from IRG can be used to produce the glyphs without errors comparing with the 2003 edition, we will use them. The fallback is images from the 2003 edition.

E71 - Japan proposes editing the text to avoid use of the wording "this Clause", "this sub-clause" and "this Annex" entirely, and replace them with references using explicit numbers, e.g., "Clause X", "X.X", "Annex X", citing the guideline from ISO Directives.

Disposition: Partially accepted. Use of 'this' is not imprecise in many cases. Editor will check and replace any improper use of 'this' with reference to specific numbered items.

E72 - Japan proposes editing the text of the standard to avoid hanging paragraphs, citing the prohibition of hanging paragraphs in ISO Directives.

Mr. Michel Suignard: There are too many instances of these. For examples clauses 8 and 9 have these. It is OK to fix it in clause 8, but not in 9, 10, 11 or 31. Typically a 'General' sub-clause is used to enclose the subsequent paragraphs.

Disposition: Accepted in principle. The editor will check and fix where it makes sense to avoid them.

E73 - Japan proposes editing the text to enclose any NOTES to a table to be within the table border. (See also comment E.53 from Japan and its disposition above).

Mr. Michel Suignard: Disposition of comment E.53 has already all the tables (5 in the main body and one in Annex I) excepting Table 5 and its associated notes. It is a case where it does not make sense to try the verbose notes into the table.

Disposition: Partially accepted. The editor will fix where it makes sense.

Mr. Michel Suignard: I really appreciate and congratulate Japan for the detailed review they have done.

7.3.5 USA: Negative.

TE1 - The US again requests the removal of U+A78F LATIN LETTER MIDDLE DOT. References the original rationale and further justifications in documents N3678, N4339 and N4340. (See also comment T1 from Ireland.)

Disposition: See discussion and disposition to comment T1 from Ireland, on page 21. The character A78F is retained with name changed to LATIN LETTER SINOLOGICAL DOT, and the glyph is changed to a larger and raised Dot.

TE2 - The US requests the addition of U+1032F OLD ITALIC LETTER TTE, as proposed in document N4395.

Discussion:

- a. Mr. Michael Everson: There is no consensus on unification. The activity among the experts is too slow. Two of the experts think not to unify.
- b. Dr. Ken Whistler: The argument is whether Old Italic is a new script or not.
- c. Dr. Deborah Anderson: I am in contact with three experts. They are not in agreement yet. The two European experts are in disagreement with the US expert.
- d. Mr. Michael Everson: I will encourage Dr. Deborah Anderson to get the experts engaged.
- e. Dr. Ken Whistler: I would like to see a demo why Old Italic cannot be represented. What is the case that it should not be? It is similar to the Runic scripts covering a wide geography. Why is Old Italic different from Central Italic; why it cannot cover the additions?
- f. Mr. Michael Everson: That is why we have to demonstrate that it is possible. There are two fonts coverings the two groupings or clusters. We have to engage the scholars. We have to resolve North Italic versus Old Italic etc.
- g. Dr. Ken Whistler: That is not necessarily relevant.
- h. Mr. Michael Everson: Experts claim that they need distinction. It is the Phoenician argument.
- i. Dr. Ken Whistler: I need a statement why they were separated, why different fonts etc. Etruscan versus Raetic may need different fonts. Note that even though Phoenician is already unified, it may need different fonts for the subsets.
- j. Mr. Michael Everson: The expert from Berkeley has cherry picked several. We need continued discussions. Raetic versus Etruscan are of interest to different groups.
- k. Dr. Ken Whistler: If they agree that is how the text is to be represented, address the issues systematically. Is it needed to have separate script when the representation is close enough? You claimed that "US is holding Phags Pa for one character".. we could turn around the argument.
- l. Mr. Michael Everson: If we add this character, one may not be able to dis-unify later.
- m. Dr. Ken Whistler: One basic argument is that the set can be represented by adding this one character.
- n. Mr. Michel Suignard: We can put this character into a bucket and it can go to a future ballot.
- o. Dr. Ken Whistler: There is no question about its identify. The open question is should there be a separate script.
- p. Mr. Peter Constable: If it is in a pipeline, the discussions will be engaging and we could make progress.
- q. Mr. Michel Suignard: It is similar to the Middle Dot.
- r. Mr. Michael Everson: I am concerned that this is a bad unification similar to Coptic etc.
- s. Dr. Ken Whistler: The Alpine repertoire is being held back because of this one character; let us get done with it. It completes one set.

Disposition: Accept the character 1032F OLD ITALIC LETTER TTE as proposed in document N4395, for a future Amendment to the 4th edition. It will not be in the current CD/DIS.
See relevant resolution M61.12 on page 48.

TE3 - The US requests the removal of 108F3 HATRAN LETTER RESH, moving the following two characters up to fill the hole. The US also requests renaming 108E3 HATRAN LETTER DALETH to HATRAN LETTER DALETH-RESH.

(See also comment E1 from Ireland.)

Disposition: See discussion and disposition to comment E1 from Ireland, on page 23. 108E3 is renamed to HATRAN LETTER DALETH-RESH; 108F3 is deleted; hole is kept.

See relevant resolution M61.02 item f, on page 33.

TE4 - The US requests the hole at 124D2 be closed up, and all the following characters be moved up by one code point.

(See also comment T6 from Ireland.)

Disposition: See discussion and disposition under comment T6 from Ireland on page 22.

See relevant resolution M61.02 item d, on page 33.

E1 - The US proposes correcting 'Old Hungarian' to 'Hungarian' in the title of the ballot page 1.

(See also comment E1 from Japan.)

Disposition: Accepted. (With the move of Hungarian to CD of 4th edition with name reverted to Old Hungarian, this comment will be moot.)

E2 - The US requests the Editor check all new annotations, because ~ (FFFD) now appears in the annotations for various characters, such as at U+111CC (Sharada block) and U+14413 (Anatolian Hieroglyphs block).

Disposition: Accepted. This was a production issue due to UTF-8 versus Latin-1.

Based on these dispositions, the US changed its vote to YES.

With the above dispositions, all the national ballot responses become 'Yes'.

Relevant resolution:

M61.02 (Disposition of ballot comments of CD of 4th edition): WG2 accepts the disposition of CD ballot comments in document N4454. The following significant changes are noted:

- a. Insert the 108 characters of 'Hungarian' that was removed from Amendment 2, into 4th edition with name of the block and the characters in the block reverted to 'Old Hungarian'.
- b. Correct the following source references for ideographs:
 - G source of 03828 from GHZ-10810.02 to GHZ-101810.03
 - Remove G source for 0400B (keep its T source reference)
 - Remove G source for 03ABF (keep its T and J source references)
- c. Rename A78F from LATIN LETTER MIDDLE DOT to LATIN LETTER SINOLOGICAL DOT, with its glyph changed to be a larger dot.
- d. Move the range of characters 124D3...12544 up by one position to 124D2...12543, in the Early Dynastic Cuneiform block.
- e. Rename 145B1 from ANATOLIAN HIEROGLYPH A383 COMBINING RA OR RI to ANATOLIAN HIEROGLYPH A383 RA OR RI.
- f. In Hatran block:
 - Delete four characters - 108F3 HATRAN LETTER RESH, 108F9 HATRAN NUMBER TWO, 108FA HATRAN NUMBER THREE and 108FB HATRAN NUMBER FOUR.
 - Rename 108E3 from HATRAN LETTER DALETH to HATRAN LETTER DALETH-RESH.
 - Move 108F8 HATRAN NUMBER ONE to vacated code position 108FB.
- g. Create additional information related to Ideographs in Annex P in a format suitable to accommodate the ballot comments from Japan.
- h. Reallocate five characters in Sharada block (based on document N4417):
 - Move SHARADA CONTINUATION SIGN from 111CE to 111DD.
 - Move SHARADA HEADSTROKE from 111DB to 111DC.
 - Move SHARADA SIGN SIDDHAM from 111DC to 111DB.

- Move SHARADA SECTION MARK-1 from 111DD to 111DE.
- Move SHARADA SECTION MARK-2 from 111DE to 111DF.
- i. CJK Extension E (per document N4439):
 - Delete six characters 2C7E1, 2B934, 2BBCF, 2C163, 2C156, and 2C1BF.
 - Rearrange the chart to remove vacated code positions.
 - Correct the attribute for 2B8A9 from 9.7 to 41.6, and any associated reordering.

7.4 Roadmap Snapshot

Input document:

[4415](#) Snapshot of Pictorial view of Roadmaps to BMP, SMP, SIP, TIP and SSP; Uma; 2013-05-24

Dr. Umamaheswaran explained the changes in document [N4415](#) from the previous snapshot. (There was no discussion.)

Disposition: Accepted for posting to SC2 membership for reference and information.

Relevant Resolution:

M61.15 (Roadmap snapshot): WG2 instructs its convener to post the updated snapshot of the roadmaps (in document [N4415](#)) to the WG2 web site and communicate the same to SC2 secretariat.

8 IRG status and reports

8.1 IRG meetings 39 and 40 - summary report

Input documents:

[4388](#) IRG Meeting 39 Resolutions; Lu Qin; 2012-11-16FYI

[4426](#) IRG Meeting No. 40 resolution; Lu Qin; 2013-05-24

[4427](#) IRG Meeting Summary; Lu Qin; 2013-05-24

Dr. Lu Qin: Document [N4427](#) is a summary for two IRG meetings 39 and 40. The other two documents contain the resolutions and are for your information.

Item 1 - Future Meetings (for endorsement): Resolution IRG 39.1 and Resolution IRG 40.1

The following gives the IRG future meeting schedules:

IRG #41 Tokyo, Japan, 2013-11-18/22

IRG #42 Qingdao, China, 2014-05-19/23

IRG #43 USA (first choice: 2014-11-17~21; second choice: 2014-11-03/07)

(Adobe as sponsor, tentative)

Disposition: Accepted. Tokyo, Qingdao and USA meetings need endorsement by WG2. Adobe has confirmed with first choice selected.

See relevant resolution M61.16 on page 56.

Item 2 - G-Source Change for CJK Ideographs (for action): Resolution IRG M39.2

The IRG requests China to report to WG2 about the deletion and modification of the G-source reference of characters agreed in IRGN1896. This item is for information to WG2.

The input was sent to WG2 as part of ballot comments by China (see comments from China on Amendment 2 ballot and their dispositions in section 7.3.1 on page 20).

Item 3 - Change of the IRG Technical Editor (for Information): Resolution IRG M40.2

The IRG accepts the request from China on the change of Technical Editor from Ms WANG Xiaoming to Mr. CHEN Zhuang with immediate effect.

Dr. Lu Qin: This item is for information to WG2. Next SC2 meeting will endorse.

Item 4 - Extension E Work (for action): Resolution IRG M39.3 and IRG M40.2

Extension E work was submitted to ISO/IEC 10646 Project editor after IRG Meeting 39. There were a number of requests from different IRG members. Discussion resulted in request for the removal of 5 characters; one duplicate character and one attribute change from CJK-Ext. E. Details are given in IRG/N1948; and are also in WG2 N4439.

See discussion and disposition under section 9.2.4 on page 38.

Item 5 - Extension F Working Schedule and the Split of the Repertoire: Resolution: IRG 39.6 and IRG M40.4

IRG #39 accepted collections from China, Japan, R.O. Korea, and the international SAT project for Ext. F work. The first consolidation after IRG Meeting #39 yielded over 8,000 characters in its collection and IRG has finished the first round of review (full review by two groups, each group reviewed only half). IRG #40 decided to split Ext F into two subsets principally of roughly equal size for timely delivery of quality output. The IRG will have a full review of F1v1.0 for IRG #41 discussion. The split is in principle based on radical orders with the exception of Japan to accommodate for the urgent request from its e-government project. The IRG would like to seek advice on the naming of the two split subsets.

Dr. Lu Qin: We need some WG2 discussion here. We had over 8000 ideographs in our last review. The review process is not effective due to its size. For efficiency purposes the collection is split into two. We are internally calling these as F1 and F2.

Discussion:

- a. Mr. Michel Suignard: What would be the difference in time frame?
- b. Dr. Lu Qin: If it is separated out, we may be able to finish F1 within a year with two IRG reviews. F1 has some UNC-s for Japan.
- c. Mr. Michel Suignard: Do you see F1 being ready in Sep 2014?
- d. Dr. Lu Qin: It should be; we will have at least two IRGs. It would be approximately 4000 ideographs. All the font issues will be dealt with.
- e. Mr. Michel Suignard: The US meeting of IRG will be after Sri Lanka WG2 meeting in September.
- f. Dr. Umamaheswaran: Do you want WG2 to do anything at this meeting? Such as endorse starting of G (F2)?
- g. Dr. Lu Qin: No. We would submit the F1 as CJK-ext F with about 4000 characters.

Item 6 - Encoding of Characters Derived from Handwritten Forms (for information): Resolution IRG 39.5 and Resolution IRG 40.5

The IRG agrees in principle to restrict the acceptance of characters derived from handwritten forms. The IRG invites member bodies to give written feedback (by November 1, 2013) on how this principle can be applied in IRG's editorial work for discussion at IRG#41.

Dr. Lu Qin: This item is related to discussions in two meetings. Some submissions looked as handwritten forms. The agreement was to accept only printed form. The printed form was the brush style and looked like handwritten form for a few of the ideographs. About 4 or 5 retained their brush stroke style and are accepted as exception to the principles.

Discussion:

- a. Mr. Michel Suignard: When we accept these for encoding, do you expect these characters to retain the handwritten forms in the charts? It would be precedence -- mostly non-brush style.
- b. Dr. Lu Qin: These will be in the F1 collection. It is part of the Japan's urgently needed subset in CJK-Ext. F1. They may look little bit inconsistent with others in style, but these ideographs have always been in that style, and we do not want to change the appearance.
- c. Mr. Taichi Kawabata: I was not at the meeting; so cannot comment.
- d. Prof. Kyongsok Kim: Two separate issues. Dr. Lu Qin said - if the chars in forms have printed form UCS, the printed form will be used. The other one is not a stroke issue -- it is the style issue.
- e. Mr. Peter Constable: When the time comes to submit ext. F1, please have a separate contribution on these characters; addressing questions such as whether these are unifiable, whether these could be represented by VS etc.

Item 7 - IRG Principles & Procedures Update (for information): Resolution IRG 39.5, Resolution IRG 39.7, Resolution IRG 39.8, and Resolution IRG 40.6

IRG made some revision to its PnP to include more details of how to handle new working set with a limit of 4,000, taking characters from implemented systems (with IRG approval), inclusion of first stroke information for submission, and other recording of its editorial work. A revision of the PnP document is underway and will be finalized in IRG Meeting No. 41 in Nov. 2013.

Dr. Lu Qin: We had updates on principles. We are trying to address the size limitation exceeding the 4000 limit guideline. It will be ready for the next meeting. The other issue is addressing the first stroke -- IRG members can use their own, but the IRG editor can change it.

Discussion:

- a. Mr. Michel Suignard: One of the proposals is to extend the radical / stroke information to accommodate alternates. This is needed for Unihan. In the future if there are multiple radical/stroke information, we can accommodate that.
- b. Dr. Lu Qin: The submissions are in our system. In the past we allowed only one first stroke.
- c. Mr. Michel Suignard: I would suggest paying attention to document N4436 (see discussion under section 10.4.3 on page **Error! Bookmark not defined.**).

Item 8 - Use of Special Symbol in IDS for IRG Internal Work (For information and action): Resolution IRG39.9

For internal work of IRG, it is important to introduce a symbol for non-encoded components. However, IRG would like to wait for WG2's discussion on this issue before the introduction of this symbol.

Dr. Lu Qin: I think there is another document on this topic on the agenda.

Mr. Michel Suignard: There were ballot comments from Japan and Korea related to the above for Amendment 2 and for CD Fourth edition.

See discussion and disposition of comment T10 from Japan on Amendment 2 ballot on page 17.

Item 9 - Z Source Issue (for Action): Resolution IRG40.7

The IRG has reserved the letter Z as the sources of International project to handle possible multiple submissions from different international projects, IRG would like to inform WG2 and request the ISO/IEC project editor to find a solution to accommodate for such situation in the future.

Dr. Lu Qin: In IRG we had a first time submission from a non member body - but from a consortium. The z-source indicator accommodates national body sources currently. We may be able to have z1, z2 ... in the future.

Discussion:

- a. Mr. Peter Constable: Do you expect agencies to have a single z-source submission each, or, a single agency could have multiple z-sources?
- b. Dr. Lu Qin: Will be similar to G1, G2 etc.
- c. Mr. Michel Suignard: It should be similar to the U-source. I prefer not to have too many sources for z.
- d. Dr. Lu Qin: This request was from Mr. John Jenkins to inform WG2. In the current system we can have z1, z2 etc. Mr. John Jenkins mentioned some operational issues.
- e. Mr. Michel Suignard: It could easily become difficult to find out the true source of the characters. We need to see some evidence of use of these before we go that route.

Action Item: Project editor (Mr. Michel Suignard) to provide comments back to IRG on this question.

Item 10 - IRG Working Document Series (for information): Resolution IRG 39.10 and Resolution IRG 40.8

The IRG will update its WDS according to the additional examples discussed in IRG No. 37 and 38 and further make the example tables using multi-column representation for easy reference. The review process is underway. The revised version will be finalized in IRG Meeting No. 41 in Japan, Nov. 2013.

Dr. Lu Qin: We will be adding more working examples and updating the document.

Item 11 - Urgently Needed Characters from UTC (for information): Resolution IRG 40.9

The IRG reviewed Unicode Consortium's request (IRGN1936) to encode 19 ideographs as urgently needed characters. The IRG requests member bodies to give written feedback before November 1, 2013 for discussion at IRG#41.

Dr. Lu Qin: IRG members are asked to provide feedback on the 19 UNCs from UTC.

Discussion:

- a. Mr. Michel Suignard: Can these be included in Ext F? If we know the radical / stroke we can always insert then into F.
- b. Dr. Lu Qin: We can take a look at it. For normal IRG work, we do not insert into an extension. I will bring it to the attention of IRG and report back.
- c. Mr. Michel Suignard: Do not disturb the ext F work because of this. But if these can be merged it would be easier. Removal of characters is worse than inserting into an extension collection.

See also discussion on UNC process in section 8.2 on page 37.

*Item 12 - IRG's feedback to WG2 regarding IVD registration by UTC (WG2 N4075) (for information):
Resolution IRG 39.11*

Regarding IRG N1889 (WG2 N4075), the IRG concludes that the UK position is very close and supportive to the IRG position. The IRG further instructs the Rapporteur to report to WG2 the IRG position.

Dr. Lu Qin: The UK did not want the registration to be done for IVS-s for already encoded characters. IRG is in support of the UK position. An IVD can be submitted by a vendor or another source and can be registered. The action item on IRG on this topic can be marked as complete.

8.2 Process for Urgently Needed Characters

Input documents:

[4230](#) Proposal to establish a CJK Unified Ideographs "Urgently Needed Characters" process; Unicode Consortium and USNB - Ken Lunde & John Jenkins; 2012-02-10

[4410](#) Comments RE: WG2 4230 (=IRG N1843) UNC process; Kim Kyongsok; 2013-05-05

Prof. Kyongsok Kim: Some of the sections in document [N4410](#) are extracted from document [N4230](#). On point 1 - in the past it was true that the size of the sets were large and took a long time to finalize an extension. The size has been limited to 25 for UNC. We analyzed the cause for these. It was the size of these blocks that led to the long time taken. Now that the IRG has limited the extension to 4000 ideographs, it should not take as much time as before. Another issue was the quality. The 5% rule for quality assurance also has improved the situation in the IRG review process. The third problem was the use of TTF fonts for multiple column formats. The change in formats and use of the fonts led to long time for reviewing Ext. E. Such changes are not expected in the future. Based on these, we suggest that the UNC process should be used very sparingly and only when it is really needed. We also suggest that the UNC-s should not be separate blocks and should be merged into a unified extension as much as possible. Example of Ext. F is shown.

Discussion:

- a. Mr. Michel Suignard: I was suggesting the last item in our IRG discussion earlier. When I produce a new block, lot of churns happens while the charts are produced for publication. Inserting 19 or so UNC-s into an extension F is doable and the choice between two methods B1 or B2 (in Korean document) should be left to the editor. If it is too complicated we can move the UNC-s to the end of the block. All your points in the document are valid.
- b. Mr. Peter Constable: The position of the UTC would be to agree that multiplication of the blocks would be good thing. The focus of the UTC document was more on the amount of time taken to standardize the characters. Your analysis that is based on reducing the block size for extensions, would also something UTC would agree with. One question would be - when we have a set of UNC-s and an Ext F (for example), how would these be progressed without delaying either?
- c. Mr. Michel Suignard: We do have test case right now. 19 UNCs and Ext F1 with 4000 characters in progress. We can decide on how they can be merged.
- d. Dr. Lu Qin: We do not want to insert the UNCs in the review process of ext F. They are two separate things from IRG perspective. WG2 can merge these as needed. IRG review process is aimed at ensuring the quality. The IRG P&P has this recognized.
- e. Mr. Peter Constable: The proposal for UNC was not to force any impact on the IRG .. nor to affect the review process etc.
- f. Mr. Michel Suignard: There are some spaces in existing blocks and these could be used for UNCs. Some of these are not in any radical / stroke sequence anyway. The intent was not to create a separate block for the UNCs.

Disposition: Noted.

9 Script contributions related to ballots:

9.1 Related to Amendment 2 (DAM2)

Note: All the documents that were listed under this section have been with during the disposition of ballot comments, or in ad hoc sessions, and have been moved to the list of documents under section 6.4 on page 13.

9.2 Related to ISO/IEC 10646 4th edition CD

Note: All the documents that were dealt with during the disposition of ballot comments, or in ad hoc sessions, have been moved to the list of documents under section 7.3 on page 20.

9.2.1 Reallocating recently approved characters within the Sharada block

Input document:

[4417](#) Reallocating recently approved characters within the Sharada block; Anshuman Pandey; 2013-04-25

Mr. Michel Suignard: I do not see any issue with the proposed change - moving five characters in a more pleasing way.

Disposition: Accept moving of current 111CE to 111DD shifting current 111DD and 111DE down to 111DE and 111DF, and swapping current 111DB and 111DC, in the fourth edition.

See relevant resolution M61.02 item h on page 33.

9.2.2 Minor typos in ISO/IEC 10646 4th edition CD (ROK)

Input document:

[4421](#) Minor typos in ISO/IEC 10646 4th ed. CD, WG2 4385; Kim Kyongsok; 2013-05-05

Mr. Michel Suignard: These are minor typos in the 4th edition text. I will take these into account.

Disposition: Accepted.

Action item: Project editor to take note and incorporate the appropriate changes in the text of the 4th edition.

9.2.3 Comments on ISO/IEC 10646 4th edition CD (editor)

Input document:

[4437](#) Comments on 1066 4th edition CD; Michel Suignard (Project editor); 2013-05-22

Mr. Michel Suignard: This document details the corrections received from various sources. Some are typos. Others are related to referencing the correct versions of Unicode. Format characters related items were in the comments from Japan. Sections to be removed or updated are indicated. The number of characters in the intro of 4th edition had to be updated. I am requesting the committee to incorporate these into the disposition of comments. New collection is also to be checked.

Disposition: Accepted.

See final disposition of comments in document N[4454](#).

9.2.4 CJK Ideographs Extension E correction

Input document:

[4439](#) CJK Ideographs Extension E correction; IRG; 2013-05-22

Mr. Michel Suignard: Does the IRG expect any more reviews of Ext. E?

Discussion:

- a. Dr. Lu Qin: If you have already done the changes, you will not need the mapping table. I can send you the mapping table received from the IRG editor.
- b. Mr. Michel Suignard: It is easier for me to remap the font by changing the CMAP table of the TTF. I can change the UCS references in the font and send the modified font back to IRG.
- c. Mr. Satoshi Yamamoto: For the six characters I suggest to leave these unassigned. It is easier to check.
- d. Mr. Michel Suignard: We do not leave holes in the CJK blocks. There are about 10000 glyphs and these are not done by hand; they are automated. I am assuming the content of Ext E is stable.
- e. Mr. Andrew West: It may be easier to check. It is OK to close the gap too. We feel there is a character that should have been unified but was not commented on. A comment could be made during DIS.
- f. Dr. Lu Qin: I can forward the revised table to IRG for checking.

Disposition: Accepted.

See relevant resolution M61.02 item i on page 33.

Action Item: Font to be sent to IRG; CJK Ext E table to be sent to IRG for a quick verification.

9.2.5 Cuneiform Sign Ka Times U (editor)

Mr. Michel Suignard: I had sent an email to Mr. Michael Everson in November 2012 regarding this character.

to: Michael Everson 2012-11-06 20:50
Cc: "Mike Ksar (mikeksar@10646.com)", Uma Umamaheswaran

Michael

CUNEIFORM SIGN KA TIMES U is duplicated in 12187 (existing) and 124D2 (proposed for CD). The glyphs are not exactly identical but seem to show the same thing.

Two things:

1 True duplicate, I will then remove the character in 124D2 from the ballot.

2 Or you meant: 'CUNEIFORM SIGN KA TIMES U U'

(I see you have the 'U U U' proposed)

If that was the case I need a new Cuneiform font the two 'U U' variant. It'd be nice to get an answer this week during the UTC.

I am copying Mike and Uma because this could affect the resolution for character counts and repertoire accepted. I saw the problem when I merged the CD content with the previous repertoire.

It was confirmed to be a duplicate and was removed (marked reserved) in the CD text and charts.

Dr. Umamaheswaran: The relevant resolution M60.11 below was not revised.

M60.11 (Early Dynastic Cuneiform script): WG2 accepts to create a new block named Early Dynastic Cuneiform in the range 12480 to 1254F, and populate it with **197** characters in code positions 12480 to 12544, with their names and glyphs as shown in document [N4278](#).

Disposition: The resolution M60.11 is to be read as corrected to 196 characters after removing the duplicate. The total count of additions in the 4th edition is adjusted down from 7438 to 7437 due to deletion of one duplicate character 124D2 CUNEIFORM SIGN KA TIMES U in the CD after the last meeting prior to issuing the ballot. This is reflected in this meeting resolution document [N4404](#).

10 Script contributions not related to ballots

10.1 Carried forward

10.1.1 Scripts and new blocks:

Afáka script ([N4292](#)); Bagam script ([N4293](#)); Balti 'B' ([N4016](#)); Balti scripts ([N3842](#)); Bhaiksuki ([N4121](#)); Chinese Chess symbols ([N3910](#), [N3966](#), [3992](#)); Coorgi-Cox Alphabet ([N4287](#)); Dhimal ([N4140](#)); Dhives Akuru ([N3848](#)); Diwani Numerals ([N4119](#)); Diwani Siyaq Numbers ([N4122](#)); English Phonotypic Alphabet (EPA) ([N4079](#)); Garay script ([N4261](#)); Gondi script ([N4291](#)); Indic Siyaq ([N4123](#)); Jenticha ([N4028](#)); Jurchen ([N4077](#)); Kawi script ([N4266](#)); Khatt-i Baburi ([N4130](#)); Khambu Rai ([N4018](#)); Khema ([N4019](#)); Kirat Rai ([N4037](#)); Kpelle ([N3762](#)); Landa ([N3768](#)); Loma ([N3756](#)); Magar Akkha ([N4036](#)); Moon ([N4128](#)); Mwangwego ([N4323](#)); Nepaalalipi script ([N4322](#)); Nepal Himalayish ([N4347](#)); Newar script ([N4184](#)); Old Yi ([N3288](#)); Obsolete Simplified Chinese Ideographs ([N3695](#)); Ottoman Siyaq System Numerals ([N4118](#)); Ottoman Siyaq ([N4124](#)); Persian Siyaq ([N4125](#)); Pyu ([N3874](#)); Raqm Numerals ([N4117](#)); Rohingya ([N4283](#)); Tangut script ([N4325](#), [N4327](#)); Tangut radicals ([N4326](#), [N4327](#)); Tikamuli ([N3963](#)); Tolong Siki ([N3811](#)); Tulu ([N4025](#)); Unifon ([N4262](#)); Woleai ([N4146](#)); Zou ([N4044](#)).

10.1.2 Miscellaneous additions to blocks:

Heraldic hatching characters ([N4011](#)); Annotations for Bengali ISSHAR ([N4156](#)); Bengali annotations ([N4148](#)); Latin letters used in the Former Soviet Union ([N4162](#)); Metrical symbols ([N4174](#)); Dis-unifying Emoji symbols for the Western zodiac ([N4207](#)); Historic currency signs of Russia ([N4208](#)); Low One Dot Leader ([N4209](#)); Linguistic Doubt Marks ([N4210](#)); Two Greek modifier letters for Critical Apparatuses ([N4211](#)); Combining decimal digits above ([N4212](#)); Revised preliminary proposal to encode six punctuation characters ([N4256](#)); Proposal to encode a symbol "Capitalized Commercial At" ([N4257](#)); Proposal for additional annotations for some modifier letters used for transliteration of Hebrew ([N4281](#)); Preliminary Proposal to encode Bodoni Ornament symbols ([N4299](#)); Revised proposal to incorporate the symbols of ISO/IEC 9995-7:2009 and its Amendment 1 ([N4317](#));

Mr. Michel Suignard: Most of these documents came from Chiang Mai. Except for the 9995 symbols, all the others should not be carried forward. We dealt with Manat currency sign. Checked with those present, if any of these have to be raised at this meeting. I prefer to drop these from list of carried forward.

Annotations requested in Annotations for Bengali ISSHAR ([N4156](#)); Bengali annotations (N4148), and Additional annotations for modifier letters for transliteration of Hebrew ([N4281](#)) are already done.

Latin letters used in the Former Soviet Union ([N4162](#)) is being worked on
Metrical symbols ([N4174](#)) proposal is still preliminary.
Dis-unifying Emoji symbols for the Western zodiac ([N4207](#)) - this was not accepted.

10.2 New Scripts or Blocks

10.2.1 Nushu

Input document:

- [4341](#) Updated proposal for encoding Nushu (Nushu); China NB - Zhao Liming; 2012-09-10
- [4376](#) Nushu ad hoc report; Nushu ad hoc group; 2012-12-24
- [4442](#) Comments on Nushu; Deborah Anderson (SEI); 2013-05-31
- [4451](#) Mapping of Nushu characters (from N4376 and N4341) and Additional Comments; Deborah Anderson, SEI, UC Berkeley; 2013-06-05
- [4461](#) Nūshu ad hoc report; Nūshu ad hoc committee – Tero Aalto; 2013-06-12

An ad hoc met and discussed the various documents.

Mr. Tero Aalto: In the original proposal there are some characters from the book that is used as a reference. We talked about missing characters from the book. They would most likely to be added later. See the ad hoc report in document N4461 for more information.

Discussion:

- a. Dr. Deborah Anderson: The proposal is not yet ready. We have made some progress.
- b. Mr. Michel Suignard: Is there any chance to get something for this week? Is there any chance that there will be an acceptable proposal before the next meeting that could be sent out for a ballot prior to the next meeting?
- c. Mr. Michael Everson: There is a clear indication as to what the names will be, an acceptable code chart etc.
- d. Mr. Michel Suignard: I can include that in the bucket and send out a PDAM ballot before the next meeting. It could contain Nushu provided it is in time for a possible PDAM ballot.
- e. Mr. Chen Zhuang: It would be acceptable to China.
- f. Mr. Michel Suignard: What would be the expected date?
- g. Mr. Michael Everson: It will take me up to a week.
- h. Dr. Deborah Anderson: Two months would be reasonable. It would include preparation, checking and verification and feedback back from China.

Disposition: Mr. Michel Everson will coordinate the activities towards finalizing the proposal. It would be a candidate for inclusion in PDAM ballot.

Relevant resolution:

M61.14 (Nushu): WG2 invites China, Ireland and SEI to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nushu ad hoc report in document [N4461](#). The resulting document would be candidate for inclusion in the next amendment to the 4th edition of the standard.

10.2.2 Nandinagari script

Input document:

- [4389](#) Preliminary Proposal to Encode Nandinagari; SEI - Anshuman Pandey; 2013-01-14

Dr. Deborah Anderson: I would like to receive national body feedback on this preliminary proposal.

Action Item: National bodies to review and provide feedback.

10.2.3 Pau Cin Hau syllabary - chart

Input documents

- [3961](#) Introducing the Logographic Script of Pau Cin Hau; Anshuman Pandey; 2010-10-27
- [4412](#) Pau Cin Hau Syllabary; SEI - Anshuman Pandey; 2013-04-15

Dr. Deborah Anderson: I would like to receive national body feedback on these documents.
Action Item: National bodies to review and provide feedback.

10.2.4 Mongolian Square script

Input document:

[4413](#) Proposal to encode the Mongolian Square script; SEI - Anshuman Pandey; 2013-04-22

Dr. Deborah Anderson: This is a historic script; it is complex. There are descriptions on encoding model etc. It includes additional text - has been revised and reviewed by UTC. Not yet ready to go yet. Specific comments would be welcome.

Discussion:

- a. Mr. Michel Suignard: Is this a horizontal or vertical script?
- b. Mr. Andrew West: It is horizontal.
- c. Mr. Michel Suignard: Would this be mature before next meeting? It can possibly be a candidate for inclusion in PDAM ballot prior to next meeting.
- d. Mr. Peter Constable: It will be ready for inclusion in the next amendment.

Action Item: National bodies to review and provide feedback.

10.2.5 Soyombo script

Input document:

[4414](#) Revised Proposal to Encode the Soyombo Script; SEI - Anshuman Pandey; 2013-04-22

Dr. Deborah Anderson: The work on Soyombo script is not as far along as Mongolian Square. Document [N4414](#) is a revised proposal. There are still a few questions remaining on the encoding model. This script can also be written vertically. It has addressed some of the earlier feedback from Japan.

Discussion:

- a. Mr. Michel Suignard: This would have similar impact on fonts like Mongolian?
- b. Mr. Andrew West: It is usually written horizontally.
- c. Dr. Ken Whistler: The chart in document [N4414](#) is the right way - the glyphs are based on horizontal writing mode. The characters have all the bars to the right. They can be stacked vertically also - see page 38 in the document; the glyphs do not rotate.
- d. Mr. Peter Constable: Yes the language is related to Mongolian. The writing is not.
- e. Mr. Michel Suignard: If it is stable enough prior to next meeting it could possibly go into a PDAM ballot.

Action Item: National bodies to review and provide feedback.

10.2.6 Leke script

Input document:

[4438](#) Revised proposal to encode the Leke script; Erich Fickle, Martin Hosken; 2013-04-26

Mr. Michel Suignard: There are some comments that have been sent to the authors. They have not been addressed yet.

10.2.7 Tamil supplement block

Input document:

[4430](#) Revised proposal to encode Tamil fractions and symbols; Shriramana Sharma; 2013-03-05

[4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

[4462](#) Attestations for Tamil fractions and symbols; Shriramana Sharma; 2013-06-12

Dr. Ken Whistler: Document [N4430](#) is a concise description of the proposal. See also [N4433](#) item 4. The background material is in a UTC contribution document L2/12-231. The evidences etc. would be requested to be submitted as a separate WG2 document.

(Note: The author has sent in document [N4462](#) containing the attestations after the meeting.)

Disposition: Accept for encoding in a future amendment to the fourth edition.

6 characters in the existing Tamil block and a new block 11FC0 to 11FFF (4 cols) named TAMIL SUPPLEMENT, as requested in document [N4433](#) item 4. Document [N4430](#) has the names and glyphs (based on section 4). Also proposed annotations in document [N4430](#) are noted.

Relevant resolution:

M61.11 (Tamil and Tamil Supplement): WG2 resolves to accept the following for inclusion in a future amendment to the 4th edition of the standard:

- a. Add the following six Tamil characters (with their glyphs based on document N4430) in the Tamil block:
 - 0BDF TAMIL CURRENT SIGN
 - 0BFB TAMIL TRADITIONAL NUMBER SIGN
 - 0BFC TAMIL TRADITIONAL CREDIT SIGN
 - 0BFD TAMIL AND ODD SIGN
 - 0BFE TAMIL SPENT SIGN
 - 0BFF TAMIL TOTAL SIGN
- b. Create a new block named Tamil Supplement in the range 11FC0...11FFF and populate it with 49 characters with their glyphs, names and code positions from sections 3 and 4 in document N4430.

10.2.8 Oracle Bones - status

Input document:

[4443](#) Oracle Bones Status report; TCA; 2013-06-10

Ms. Lin-Mei Wei presented the report in document N[4443](#). TCA and China are working together to make TTF font, based on the outputs from the Old Hanzi experts group. Two thousand of the glyphs will be completed this year, and the next 5,000 will be completed next year. It is expected that TTF font will be complete by the end of 2014, and then submitted to WG2 for encoding.

Discussion:

- a. Mr. Michel Suignard: I would suggest some material that may be ready be sent to WG2 to review, so that we would have some idea of the progress being made.
- b. Dr. Ken Whistler: I would also like to suggest that before a complete collection of 7000+ characters is presented to WG2, I would like to see the sources, the principles for unification, for ordering etc. is presented to WG2. I don't want to review the fonts for the 7000 without some information about the background. Dr. Lu Qin: The IRG had sent an oracle bone principles etc. to WG2. It has some information in it already. I am not aware of any official meetings of experts as yet.
- c. Mr. Michel Suignard: The principles and references should be used in the work.
- d. Dr. Lu Qin: Yes, of course.
- e. Mr. Taichi Kawabata: Japan had sent in some comments (IRG N1771?) presented to the Oracle Bones group. The response should have been presented to WG2, but it was not done. Refer to document N[4236](#). JP has been waiting for the responses for our concerns related to handling variants, architecture for ordering etc.
- f. Mr. Michel Suignard: Until we have a document, we cannot do much. I would like to see some intermediate progress of work, for example ... if you have 2000 ready out of the 7000 it would be useful to verify that the concerns are addressed before going too far. Are there any meetings on the topic?
- g. Dr. Lu Qin: There have not been any official meetings yet. Since it was in IRG earlier I asked what the progress was and that is why the status report was sent in.
- h. Dr. Ken Whistler: Following up on document N[4357](#), it is a set of steps which sorts the material into glyph buckets towards a font. However, it does not have information on what are the characters? You may end up in many many glyphs in the font, but they could represent the same thing without an understanding of what the ' same thing' means.
- i. Dr. Lu Qin: The expert group was not clear on what Japan was requesting. The expert group was thinking that they were just putting together a repertoire. I hope they will be making some progress and the suggestion for a partial submission is a good one and will be helpful.

10.2.9 Re-facture of Tangut fonts

Input document:

[4455](#) Explanation on the Re-facture of Tangut Fonts; China; 2013-06

Discussion:

- a. Mr. Andrew West: We had submitted a revised Tangut proposal last year accommodating all the previous requests. We have not had any feedback from other national bodies including China. China has indicated that their experts are working on a project collecting all the primary Tangut sources. They are trying to clarify what the correct glyph forms for these are. I don't know how it fits with what is proposed, or whether China is going to come up with yet another proposal. The

current proposal has taken care of secondary sources such as dictionary from various countries. China's attempt is to clarify the forms. I don't see any problems with putting the current proposals on ballot and China can provide ballot comments. Document N4455 from China talks about the current work in progress. It is not clear how it relates to the current proposal.

- b. Mr. Chen Zhuang: Our Tangut experts are not here. They are the only ones who can clarify their concerns.
- c. Mr. Michel Suignard: So what do we do?
- d. Mr. Michael Everson: What they seem to be doing is that they are revising all the reference documents. The agreement that was in previous ad hoc was the proposal should reference all sources. Mr. Andrew West took about two years to get all that collated and are in the proposals. From all the reviews I have had, the current proposed code charts are suitable for balloting, and I do not see what could be gained by delaying these. I am perfectly happy to put into a bucket.
- e. Dr. Deborah Anderson: Chinese experts had an action item to provide feedback on current proposal. I am not sure if they have done a complete review or not. A face to face meeting between Messrs. Andrew West, Michael Everson and the Chinese experts is what I would recommend - go page by page. It could have some meeting in November time frame. I may be able to get some funding sources to help out to get the experts to China to that meeting.
- f. Mr. Michael Everson: It may be a wise thing to do before putting them on a ballot.
- g. Mr. Michel Suignard: If it is going to be in November, putting it in the bucket does not help. We could shoot for having a consensus proposal by February meeting. Lots of people have put a lot of work into the topic. I would like to see this progressed.
- h. Mr. Michael Everson: We could target for a second meeting if needed prior to February meeting in San Jose - may be a few days prior to the meeting.
- i. Mr. Andrew West: I welcome the Chinese invitation to the meeting. My only concern is potential differences that could take us back to square one.
- j. Dr. Ken Whistler: If that happens we are trying to shake this out before the topic goes into a ballot. We do not want to end up discussing it as part of ballot resolutions if there are potentially such differences in directions.
- k. Mr. Michel Suignard: I think this is the best we can do at this meeting.
- l. Dr. Deborah Anderson: End of November is the expected date for the Tangut experts meeting in Beijing, China.

Disposition: Await output from Tangut meeting.

10.3 Additions to Existing Scripts or Blocks

10.3.1 Four Historic Latin letters for Sakha (Yakut)

Input document:

[4213](#) Revised proposal to encode four historic Latin letters for Sakha (Yakut); Ilya Yevlampiev, Nurlan Jumageldinov, Karl Pentzlin; 2012-01-29

[4397](#) Proposed Additions to ISO/IEC 10646; U.S. National Body (INCITS/L2); 2013-02-13

Mr. Michael Everson: Four characters are proposed to be added to Latin Extended-E block, for Siberian language called Yakut. In that orthography they did not have capital letters. The authors have provided evidence of use.

Discussion:

- a. Mr. Michael Everson: The Iotified E could be described as small i e ligature. I have some issues with the names. The Roman form of Italic Form of Cyrillic yat. If you go to Wikipedia and look at Yat, you will see the italicised version of Yat. My proposed name for the corresponding character is to call it Low Yat. The regular Roman one does not have the shape proposed. It could prevent future potential dis-unification.
- b. Dr. Ken Whistler: It could be SAKHA YAT.
- c. Mr. Michael Everson: Should be OK too.
- d. Mr. Michel Suignard: The US has requested to include this in 4th edition (in document N[4397](#), item 1).
- e. Dr. Ken Whistler: These four characters are being suggested for 4th edition because these are not controversial.

Disposition: Accept four characters for fourth edition. Name for AB60 will be SAKHA YAT

See relevant resolution M61.09 item c on page 44.

10.3.2 Telugu Letter RRRRA

Input document:

[4215](#) Proposal to encode 0C5A TELUGU LETTER RRRRA; Shriramana Sharma, Suresh Kolichala, Nagarjuna Venna, Vinodh Rajan; 2012-01-18

Dr. Deborah Anderson: This proposal was written in 2012. We were awaiting review by some experts from India and support it. Government of Andhra Pradesh informed that they support this to Unicode last month. The 0C5A TELUGU LETTER RRRRA with its glyph based on what is shown in section 1 of document N[4215](#).

Disposition: Accept for future Amd.

See relevant resolution M61.12 on page 48.

10.3.3 Four new Arrows

Input document:

[4318](#) Proposal to add four arrows to get a consistent mapping from ISO/IEC 9995-7 symbols to Unicode; Karl Pentzlin; 2012-09-10

[4397](#) Proposed Additions to ISO/IEC 10646; U.S. National Body (INCITS/L2); 2013-02-13

Mr. Michel Suignard: these are keyboard symbols from ISO/IEC 9995-7 standard. They are well attested and no controversy on these. Four additions are proposed. Some annotation changes are also there.

Discussion:

- a. Dr. Ken Whistler: N[4397](#) requests changed names. See section 2.

Disposition: Accept the four characters, with modified names. Also, remove annotations on four existing arrows, per section 3 in N[4318](#).

See relevant resolution M61.09 item d on page 44.

10.3.4 One Slavonic Cyrillic character

Input document:

[4390](#) Proposal to encode an outstanding early Cyrillic character; Aleksandr Andreev, Yuri Shardt, Nikita Simmons; 2013-01-29

[4397](#) Proposed Additions to ISO/IEC 10646; U.S. National Body (INCITS/L2); 2013-02-13

Dr. Deborah Anderson: It is a proposal from Palomar project. They found that a superscript combining Cyrillic character was missing and have proposed to be added to the standard. It is also requested by the US in document N[4397](#) item 4 to be added to the fourth edition.

Disposition: Accept A69E COMBINING CYRILLIC LETTER EF for fourth edition.

See item in relevant resolution M61.09 below.

M61.09 (Additional characters for CD of 4th edition): WG2 accepts the following additional characters for the 4th edition of the standard:

- a. Following 6 Siddham variant characters (with their glyphs from document N4407R) in Siddham block:
 - 115E0 SIDDHAM LETTER I VARIANT FORM A
 - 115E1 SIDDHAM LETTER I VARIANT FORM B
 - 115E2 SIDDHAM LETTER II VARIANT FORM A
 - 115E3 SIDDHAM LETTER U VARIANT FORM A
 - 115E4 SIDDHAM VOWEL SIGN U VARIANT FORM A
 - 115E5 SIDDHAM VOWEL SIGN UU VARIANT FORM A(note: 115E4 and 115E5 are combining characters).
- b. Following 14 Siddham section marks (from document N4336 modified with names in document N4457) in Siddham block:
 - 115CA SIDDHAM SECTION MARK WITH TRIDENT AND U-SHAPED ORNAMENTS
 - 115CB SIDDHAM SECTION MARK WITH TRIDENT AND DOTTED CRESCENTS
 - 115CC SIDDHAM SECTION MARK WITH RAYS AND DOTTED CRESCENTS
 - 115CD SIDDHAM SECTION MARK WITH RAYS AND DOTTED DOUBLE CRESCENTS
 - 115CE SIDDHAM SECTION MARK WITH RAYS AND DOTTED TRIPLE CRESCENTS
 - 115CF SIDDHAM SECTION MARK DOUBLE RING
 - 115D0 SIDDHAM SECTION MARK DOUBLE RING WITH RAYS
 - 115D1 SIDDHAM SECTION MARK WITH DOUBLE CRESCENTS
 - 115D2 SIDDHAM SECTION MARK WITH TRIPLE CRESCENTS

115D3 SIDDHAM SECTION MARK WITH QUADRUPLE CRESCENTS
115D4 SIDDHAM SECTION MARK WITH SEPTUPLE CRESCENTS
115D5 SIDDHAM SECTION MARK WITH CIRCLES AND RAYS
115D6 SIDDHAM SECTION MARK WITH CIRCLES AND TWO ENCLOSURES
115D7 SIDDHAM SECTION MARK WITH CIRCLES AND FOUR ENCLOSURES

- c. Following 4 characters (with their glyphs from document N4213R) in Latin Extended-E block:
AB60 LATIN SMALL LETTER SAKHA YAT
AB61 LATIN SMALL LETTER IOTIFIED E
AB62 LATIN SMALL LETTER OPEN OE
AB63 LATIN SMALL LETTER UO
- d. Following 4 arrows (with their glyphs from document N4318) in Miscellaneous Symbols and Arrows block:
2BEC LEFTWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS
2BED UPWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS
2BEE RIGHTWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS
2BEF DOWNWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS
- e. 1F54F BOWL OF HYGIEIA (with its glyph from document N4393) in the Miscellaneous Symbols and Pictographs block
- f. A69E COMBINING CYRILLIC LETTER EF (with its glyph from document N4390) in the Cyrillic Extended-B block

(note: several of the proposal documents referenced above have proposed annotations or changes to existing annotation in the names list)

10.3.5 Bowl of Hygieia

Input document:

[4393](#) Proposal requests addition of the symbol: BOWL OF HYGIEIA; Unicode Consortium; 2013-02-05

[4397](#) Proposed Additions to ISO/IEC 10646; U.S. National Body (INCITS/L2); 2013-02-13

Dr. Ken Whistler: The proposed symbol is different from snake wrapped around. It appears as a map symbol for drug stores / pharmacies.

Discussion:

- a. Mr. Michael Everson: I saw this symbol in Lithuania on Sunday.

Disposition: Accept single character 1F54F BOWL OF HYGIEIA into the 4th ed. See documents [N4393](#) and [N4397](#).

See relevant resolution M61.09 item e on page 44.

10.3.6 Duodecimal Digit forms

Input document:

[4399](#) Proposal to encode Duodecimal Digit Forms; Karl Pentzlin; 2013-03-30

[4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

Dr. Ken Whistler: Document [N4399](#) is a proposal by Mr. Karl Pentzlin looking at duodecimal numbers, which needs two more digits beyond 10 - one for 11 and one for 12. There were several groups promoting this system. The one from Great Britain had one representation. The one from US had a different system. The one from Great Britain is more current with a website showing examples. Four digit forms are in section 2 - one set each for the two systems. In the Unicode review we found it was a reasonable proposal. The first two from Great Britain were considered to be appropriate. The UTC agreed to the first two. For the second set, the Raised Chi is similar to a Chi that is under ballot and would be a duplicate. For the Turned Ezh .. the difference is too marginal a difference to the other proposal. The recommendation was to accept the first two and the other two should be held off till open issues are resolved. To encode these as symbols would be more appropriate rather than digits. It affects the property discussion at the UTC. Also the UTC has proposed different names for these in [N4433](#).

Discussion:

- a. Mr. Michael Everson: I would concur.
- b. Mr. Michel Suignard: These are going into a bucket for a future amendment.

Disposition: Accept 218A TURNED DIGIT TWO and 218B TURNED DIGIT THREE with their glyphs as in document [N4399](#); for future amendment.

See relevant resolution M61.12 on page 48.

10.3.7 Symbols for penalty cards

Input document:

[4406](#) Proposal to encode symbols for penalty cards; Karl Pentzlin; 2013-04-01

Discussion:

- a. Mr. Peter Constable: No evidence that it is used as plain text is presented.
- b. Mr. Michael Everson: Figure 1 has a row of text. I have no problems with their use in text. We have already a soccer ball encoded! To imbed it in a sentence we may have to resort to the images.
- c. Mr. Peter Constable: Top row has a row with some text.
- d. Dr. Ken Whistler: Precisely why we are asking for justification for embedding these in plain text. It is unclear as to whether these are justified.
- e. Mr. Andrew West: I tend to agree with Dr. Ken Whistler on this. People would use pictures of red or yellow cards etc. If they need these images they would need the colour too.
- f. Dr. Umamaheswaran: This also has the problem with the colours like in Emoji.
- g. Dr. Ken Whistler: It looks like the arguments in interoperability context, real use by actual users etc. are not presented.

Disposition: Not accepted. Author to take note of the discussion.

10.3.8 Azerbaijani Manat currency sign

Input documents:

[4163](#) Letter re Confirmation of the Manat sign; Central Bank of the Republic of Azerbaijan –via Karl Pentzlin; 2011-10-31

[4168](#) Proposal to add the currency sign for the Azerbaijani Manat to the UCS; German NB; 2011-11-10

[4445](#) Proposal to add the currency sign for the Azerbaijani Manat; Karl Pentzlin, Expert Contribution in succession of a German NB contribution; 2013-06-10

Discussion:

- a. Mr. Michel Suignard: We had looked at it earlier and had rejected it because of lack of evidence. Document [N4445](#) is the latest.
- b. Mr. Michael Everson: We do have more evidence now with lots of scanned material from Azerbaijan. I would prefer to add those into a revised document. We can act on approving the character ... with those upcoming evidences. We could put it into Amd. 2.
- c. Dr. Ken Whistler: If it is in DAM it would be published earlier than the 4th edition.

Disposition: Accept for Amd. 2. 20BC - MANAT SIGN with its glyph from document [N4445](#) (with changed name)

See relevant resolution M61.01 on page 19.

10.3.9 Jain Om for Devanagari

Input document:

[4408](#) Proposal to Encode the JAIN OM for Devanagari; Script Encoding Initiative (SEI), Author: Anshuman Pandey; 2013-04-25

[4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

Dr. Deborah Anderson: This is a proposal from Mr. Anshuman Pandey for an OM sign for Jain texts in Devanagari script. The evidence is given in the document. The US national body has reviewed it and would like this to be accepted.

Discussion:

- a. Mr. Michel Suignard: By putting into a bucket it would give parties such as Government of India a chance to review.
- b. Mr. Michael Everson: I have done the font.

Disposition: Accept for a future Amendment. A8FD DEVANAGARI JAIN OM with glyph from document [N4408](#).

See relevant resolution M61.12 on page 48.

10.3.10 Bakhshali minus sign

Input document:

[4416](#) Sharada Bakhshali minus sign; Anshuman Pandey; 2013-04-25

Discussion:

- a. Mr. Michel Suignard: The proposed character is a minus sign that looks like a plus sign; confusability issue.
- b. Mr. Michael Everson: We could use the existing sign - it does not have to be script specific. It is not in modern use.

Disposition: Not accepted. Dr. Deborah Anderson will communicate with the author.

10.3.11 Malayalam Chillu LLL

Input document:

[4428](#) Proposal to encode MALAYALAM LETTER CHILLU LLL; Cibu Johny; 2013-05-15

[4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

Mr. Peter Constable: In Malayalam certain consonants had a Chillu Form -- we have encoded a few. This document has obtained evidence for one more. The name has LLL from transliteration.

Mr. Michel Suignard: have the font.

Disposition: Accept for future Amendment; 0D4F MALAYALAM LETTER CHILLU LLL, with glyph from document [N4428](#).

See relevant resolution M61.12 on page 48.

10.3.12 Malayalam minor fractions

Input document:

[4429](#) Proposal to encode Malayalam minor fractions; Shriramana Sharma; 2013-04-25

Dr. Deborah Anderson: Document [N4429](#) is a proposal from Mr. Shriramana Sharma for Malayalam minor fractions - 10 characters are proposed in section 7 of document. Evidence of use is provided. The US national body has reviewed this and considers it is ready to be standardized.

Disposition: Accept following 10 characters for a future amendment:

0D58; MALAYALAM FRACTION ONE ONE-HUNDRED-AND-SIXTIETH

0D59; MALAYALAM FRACTION ONE FORTIETH

0D5A; MALAYALAM FRACTION THREE EIGHTIETHS

0D5B; MALAYALAM FRACTION ONE TWENTIETH

0D5C; MALAYALAM FRACTION ONE TENTH

0D5D; MALAYALAM FRACTION THREE TWENTIETHS

0D5E; MALAYALAM FRACTION ONE FIFTH

0D76; MALAYALAM FRACTION ONE SIXTEENTH

0D77; MALAYALAM FRACTION ONE EIGHTH, and,

0D78; MALAYALAM FRACTION THREE SIXTEENTHS

with their glyphs based on the chart in section 8 of document [N4429](#).

See relevant resolution M61.12 on page 48.

10.3.13 Grantha Om

Input document:

[4431](#) Proposal to encode 11350 Grantha Om; Shriramana Sharma; 2013-04-10

[4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

Dr. Deborah Anderson: The proposal is for one character 11350 GRANTHA OM. Evidence is shown in [N4431](#). The US national body has reviewed this and considers the proposal is mature for encoding.

Disposition: Accept 11350 GRANTHA OM, with its glyph is based on document [N4431](#) for future amendment.

See relevant resolution M61.12 on page 48.

10.3.14 Grantha Anusvara Above

Input document:

- [4432](#) Proposal to encode Grantha Anusvara Above; Shriramana Sharma; 2013-03-04
- [4433](#) More Future additions to ISO/IEC 10646; USNB; 2013-05-10

The proposal is for a single combining character. Evidence is given in the document.

Disposition: Accept for a future amendment, 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE with its glyph based on document [N4432](#). Take note of requested annotation also.

Relevant resolution:

M61.12 (Character additions for a future amendment to 4th edition): WG2 accepts to add the following in a future amendment to the 4th edition of the standard:

- 1032F OLD ITALIC LETTER TTE as proposed in document N4395.
- 0C5A TELUGU LETTER RRRA with its glyph based on what is shown in section 1 of doc N4215.
- Two characters - 218A TURNED DIGIT TWO and 218B TURNED DIGIT THREE (with their glyphs from document N4399) in the Number Forms block.
- Ten Malayalam minor fractions (with their glyphs from document [N4429](#)) in the Malayalam block:
0D58 MALAYALAM FRACTION ONE ONE-HUNDRED-AND-SIXTIETH
0D59 MALAYALAM FRACTION ONE FORTIETH
0D5A MALAYALAM FRACTION THREE EIGHTIETHS
0D5B MALAYALAM FRACTION ONE TWENTIETH
0D5C MALAYALAM FRACTION ONE TENTH
0D5D MALAYALAM FRACTION THREE TWENTIETHS
0D5E MALAYALAM FRACTION ONE FIFTH
0D76 MALAYALAM FRACTION ONE SIXTEENTH
0D77 MALAYALAM FRACTION ONE EIGHTH
0D78 MALAYALAM FRACTION THREE SIXTEENTHS
- A8FD DEVANAGARI JAIN OM (with its glyph from document [N4408](#)) in the Devanagari Extended block.
- 0D4F MALAYALAM LETTER CHILLU LLL (with its glyph from document [N4428](#)) in the Malayalam block.
- **Two** characters - 11350 GRANTHA OM (with its glyph from document [N4431](#)), and 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE (with its glyph from document [N4432](#)), in the Grantha block.

(note: several of the proposal documents referenced above have proposed annotations or changes to existing annotation in the names list)

10.3.15 Symbols of ISO/IEC 9995-10: 2013

Input document:

- [4444](#) Proposal to incorporate the symbols of ISO/IEC 9995-10:2013; ISO/IEC/JTC1/SC35; 2013-02-22
- [4464](#) Evidence of keyboard symbols from ISO/IEC 9995-7 and 9995-10 in print; Karl Pentzlin; 2013-06-13

Mr. Alain Labonté: The main argument has been that these symbols are entered in documentation, and would be searchable.

Discussion:

- a. Mr. Peter Constable: The argument is not convincing. There is one picture with a symbol on a keycap. It is not an indication that it is a text interchange scenario. If a documentation of these keyboards is produced one can use images. For searching these symbols they cannot be entered as data to any search. I still want to have some evidence of use or implementations on use of these as plain text.
- b. Dr. Ken Whistler: The examples shown ... are use of the dead key symbols. Things may be represented in documentation ... ' use the following key sequence to represent xxxx'.
- c. Mr. Michael Everson: I imagine the shapes of these symbols etc. are to make the keycaps more attractive.
- d. Dr. Deborah Anderson: We had the same feedback requesting evidence of use as plain text.
- e. Mr. Alain Labonté: The standard is used to tell the users to enter characters that are confusables in Unicode.
- f. Dr. Ken Whistler: That is OK for entering on a keyboard. But that does not provide evidence that these symbols are really needed in plain text for interchange or searching etc. It is one thing to say that for a given font we will use the PUA to glyphs mapping.
- g. Mr. Michel Suignard: Use of PUA for fonts purposes etc. is something we do all the time .. even in producing the ISO/IEC 10646 documentation.

Disposition: WG2 has not received sufficient evidence of use of these symbols in plain text. We cannot do anything with this request from SC35 till we receive adequate evidence for encoding in ISO/IEC 10646.

Document [N4464](#) was made available to the meeting on Thursday 2013-06-13. It contains some more rationale for the proposed symbols.

Discussion: This document was made available quite late into the meeting. The further evidence provided for encoding these symbols is primarily based on requirement for printing, such as the printed edition of German standard DIN 2137-1:2012. However, printing can be accomplished, for example, by using images for the symbols. This document was not discussed in detail.

10.3.16 Marchen script

Input document:

[4032](#) Proposal to encode the Marchen script; Andrew West; 2011-04-30

Mr. Andrew West: Five scripts are discussed. Of these four are Font variants. Most widely used is Marchen; it is different from Tibetan with different behaviours. Differences from Tibetan and with the 4 variants are shown in the document. It is not widely used; it is of scholarly interest. We have not had any feedback from WG2 or any other experts over the last few years. It follows the encoding model of Tibetan with subjoining characters.

Discussion:

- a. Dr. Deborah Anderson: UTC did look at this document in 2011. There was some feedback regarding the combining canonical classes. I was trying to get additional feedback from more experts. There was a question on the overall approach.
- b. Mr. Michel Suignard: Question about having dash in the name - was verified to be OK.
- c. Mr. Peter Constable: This was discussed in the UTC in 2011. I know some questions about the family of scripts and how they should be broken up for encoding. It was an open question, but not a reason to object. There were some questions about the character properties. I am not sure whether the feedback was sent to authors.
- d. Dr. Ken Whistler: Some of the subjoining characters are given combining class of zero. Vowel signs 130-132 are related to corresponding Tibetan characters, and these do not follow what we do for new scripts. Neither of these questions impacts the repertoire.
- e. Mr. Andrew West: The Tibetan subjoining classes do have zero. The vowel signs should be checked.
- f. Dr. Ken Whistler: You are right for sub joiners - they are class zero. Combining classes and general category of vowel signs were of concern.
- g. Mr. Michel Suignard: The information that is asked for from UTC should be attended to.
- h. Mr. Peter Constable: It would be advisable to request UTC to discuss it at the next meeting.
- i. Dr. Deborah Anderson: I can do some due diligence before the next UTC.
- j. Mr. Michel Suignard: We have enough material to proceed with the repertoire point of view. Fonts are to be sent to me.
- k. Mr. Andrew West: I do have the fonts.
- l. Mr. Peter Constable: If there was a different analysis of the classifications of the different scripts, would there be different conclusions?
- m. Mr. Andrew West: The other four scripts are now well attested. They are found mostly in Tables -- not enough evidence for encoding those. It is possible someone could come along that Marchen is different enough from others etc.
- n. Dr. Deborah Anderson: I would like to see a little more details about the different scripts - going back to my email in 2011.
- o. Mr. Andrew West: All the information I have found is what is documented in the table of comparison. A, B and C are different samples of the same script. I am using the glyphs from A column - the more blocky one.
- p. Mr. Michel Suignard: This could be a candidate for the bucket that could be processed as a PDAM.
- q. Dr. Ken Whistler: I would like to see an updated version of the proposal.11C50 ... five cols from roadmap.
- r. Mr. Andrew West: I will do that update before the next UTC.

s. Ms. Lisa Moore: The next UTC is the week starting on July 29, 2013.
Disposition: Await revised proposal from Mr. Andrew West.

10.4 Miscellaneous Proposals

10.4.1 Subtitles in U11xx and U31xx (Hangul Jamo)

Input document:

[4409](#) A request to change subtitles in U11xx and U31xx (Hangul Jamo); Kim Kyongsok; 2013-05-05

Prof. Kyongsok Kim: Document N4409 requests changing subtitles for some of the Hangul Jamo blocks U11xx and U31xx. There is some inconsistency in the way the two blocks are described. Proposal is to make these consistent - as shown in Attachment 3.

Discussion:

- a. Dr. Ken Whistler: I don't think these are necessary. But what is proposed is not wrong. I would not have any objection to add these. These labels are not really trying to classify these - there is no confusion as to what is old and new.
- b. Prof. Kyongsok Kim: In 2003 edition, the labels were not there. When the format of the lists was changed, and the labels were introduced, some inconsistency in the labels came in. You could also delete all the labels instead.

Disposition: Accept proposed label insertions and modifications as in Attachment 3; for 4th edition.

Relevant resolution:

M61.03 (Subheadings in the nameslist in 4th edition): WG2 accepts the following subheading insertions and replacements (from attachment 3 in document N[4409](#)) in the nameslist for the 4th edition of the standard:

Insert 'Old *initial consonants*' between lines for 1112 and 1113.

Insert 'Old *medial vowels*' between lines for 1175 and 1176.

Insert 'Old *final consonants*' between lines for 11C2 and 11C3.

Replace 'Initial consonants' with 'Old *initial consonants*' before the line for A960.

Replace 'Medial vowels' with 'Old *medial vowels*' before the line for D7B0.

Replace 'Final consonants' with 'Old *final consonants*' before the line for D7CB.

Replace 'Modern *letters*' with 'Consonant *letters*' before the line for 3131.

Insert 'Vowel *letters*' before the line for 314F.

Replace 'Old *letters*' with 'Old consonant *letters*' before the line for 3165.

Insert 'Old vowel *letters*' before the line for 3187.

10.4.2 Clause 22.1 Hangul syllable composition method and 23.1 List of source references in ISO/IEC 10646

Input document:

[4411](#) A request to change clauses 22.1 and 23.1 in 10646; Kim Kyongsok; 2012-11-08

Prof. Kyongsok Kim: Hangul Jamo Ext-A and Ext-B were added recently, and are not reflected in the corresponding clauses 22.1 and 23.1 in the standard.

Discussion:

- a. Mr. Michel Suignard: We typically do not update source references. I am concerned about them.
- b. Dr. Ken Whistler: I have the same concern. We should keep the old source references in the standard. We can have a note saying that these have been republished as xxxx.
- c. Mr. Michel Suignard: We had this sort of discussion before. It is a historical record of the source references. We did similar thing for K0 and K1 earlier, even though it was controversial at that time.
- d. Prof. Kyongsok Kim: For some of these, the older documents are just not available. I am OK with keeping the old source references, but add a note that they have new numbers / new publication numbers.
- e. Dr. Lu Qin: In IRG discussion, Korea had brought up the issue. The only reference for the old source references were ISO/IEC 10646.
- f. Dr. Umamaheswaran: We can update K0 and K1 also to follow the new proposed change.

Disposition: Accept in principle. Update K2, K5, K0 and K1 in clause 23.1; different wording in clause 22.1.

Relevant resolutions:

M61.04 (Clause 22.1 in 4th edition): WG2 accepts the following change (proposed in document N4411) in clause 22.1 in the 4th edition of the standard:

Replace

"In rendering ... (from ... 11FF) is displayed ..."

With

"In rendering ... (from ... 11FF, HANGUL JAMO EXTENDED-A block: A960 to A97F and HANGUL JAMO EXTENDED-B block: D7B0 to D7FF) is displayed ..."

M61.05 (Clause 23.1 in 4th edition): WG2 accepts replacing the list of Hanja K sources with the following (per discussion on document N4411) in clause 23.1 in the 4th edition of the standard:

- K0 KS C 5601-1987 (now known as KS X 1001:2004).
- K1 KS C 5657-1991 (now known as KS X 1002:2001).
- K2 PKS C 5700-1 1994 (Reedited and standardized as KS X1027-1:2011).
- K3 PKS C 5700-2 1994 (Reedited and standardized as KS X1027-2:2011).
- K4 PKS 5700-3: 1998 (Reedited and standardized as KS X1027-3:2011).
- K5 Korean IRG Hanja Character Set 5th Edition: 2001 (Reedited and standardized as KS X1027-4:2011).

and, deleting the current Note 4.

10.4.3 Data format for CJK sources

Input document:

[4436](#) Proposal to change data format for CJK sources; Michel Suignard (Project editor); 2013-06-03

Mr. Michel Suignard: We have two data files for CJK. CJKU and CJKC. The U can have several sources. C has additional field. In addition we have IICORE with pseudo source info. So far they are consistent. However, there is a risk for these going out of synch easily -- the same information is there but different formats. On the Unicode side in Unihan, the same information is there but different format again. Radical Stroke is another piece on Unihan. I need to produce the multiple column charts for both -- ISO/IEC 10646 and Unicode standard. To make life easier, I would like to have the same source of data and field formats to prevent potential divergences etc. The formats between CJKU and Unihan are also different, even though the information is the same. Unihan has possible multiple radical/stroke values. The IICORE information in ISO/IEC 10646 is more complete as compared to Unihan. I am proposing a single file to contain all the relevant information that is split between the three different files in ISO/IEC 10646 now. It is presented in a table using a RegEx syntax. Examples are shown. If we accept this new format, some rewriting of texts in clauses will be involved. The only potential issue would be where 'RegEx' definition would be recorded. I will point to the current Perl RegEx definition. The Perl RegEx is used to validate the data that we have today. If we do this, it will simplify the life of the project editor. I already use the Perl RegEx and the formats described to produce the documents today. I have to convert between the ISO/IEC 10646 and Unicode formats. I would like to use the new formats for the 4th edition DIS.

Discussion:

- a. Prof. Kyongsok Kim: You are proposing merging the three files into one in ISO/IEC 10646. What about Unicode side?
- b. Mr. Michel Suignard: The Unihan is in the form of a database. I would expect that if we adopt this in ISO/IEC 10646, I would expect Unicode also to adopt it. There are 10 or more files in Unihan. The three files in ISO/IEC 10646 are among the 10.
- c. Dr. Umamaheswaran: If there are any parsers depending on the current CJKx.txt they will be impacted -- users will have to change the parsing.
- d. Mr. Michel Suignard: The old format was columnar; the new one is one source per line.
- e. Dr. Lu Qin: Does this have any implication for z-variants?
- f. Mr. Michel Suignard: If we have a new source, there will be an additional row.
- g. Dr. Ken Whistler: If you were to add a new z-source, there will be a new tag definition. It will not change the formats. With the current CJKx format, if we add a new source a new column has to be added.
- h. Mr. Michel Suignard: The only thing that is new is the kIICORE tag. The data will be the same, only the format is changed.
- i. Prof. Kyongsok Kim: There is no technical change - but only the format. But there will be a new

program to interpret the new format. Why can't you keep the format as is? Would you submit to national bodies to review?

- j. Mr. Peter Constable: If we add a new z source, you will need to rewrite a tool anyway.
- k. Mr. Michel Suignard: I already use this new format for creating the multiple column charts etc.
- l. Dr. Lu Qin: Do you want the IRG to provide information in this new format?
- m. Mr. Michel Suignard: Today you are supplying the information in an .xls and I have to convert it anyway to the internal format I use. It should not impact the work of IRG at all. The charts that are produced will not be different - for IRG to review.
- n. Mr. Michel Suignard: If it goes to DIS, you will have a chance to comment.
- o. Dr. Ken Whistler: You could modify the proposal so that the clause 23.1 description of the tag and the possible values as they are. You would not have to go hunting for a source to define RegEx etc. Rename fields as tags. It will be less risky in going forward.
- p. Mr. Michel Suignard: I can accept that amendment. I agree it is less disrupting.
- q. Dr. Umamaheswaran: There will be needed rewording of the clauses to reflect the merging of the three data files into a single one.

Disposition: Accept the proposal in document N4436 to merge the three data files for CJK into a single new format. The tag descriptions and their values will be as they are now. Wordings in clause 23 will be reworded to reflect the new proposed format. It will be in 4th edition.

Relevant resolution:

M61.06 (New data format for CJK data files for 4th edition): WG2 accepts the proposed reformatting (based on document N4436) of the CJK data files, allowing merging CJK_U, CJK_C and IICORE.txt files into a single file, and instructs its project editor to implement the new format along with any associated explanatory text in the 4th edition of the standard.

10.4.4 Lithuanian accents (SEI)

Input document:

[4452](#) Accents - Follow - Up; Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2013-06-07

This document is a follow-up to the WG2 meeting 59 Lithuanian ad hoc report recommendation re: CLDR in document [N4242](#). It was discussed during CLDR-related Lithuanian discussion, outside of WG2 meeting.

10.4.5 Latvian characters

Input documents:

[4449](#) Cedillas and commas below; Eric Muller, Adobe; 2013-01-29

[4448](#) Transition Considerations; Lisa Moore; 2013-03-29

[4450](#) Latvian and Livonian glyphs with comma accent in the Unicode Standard; Roberts Rozis, Tilde; 2013-06-07

[4456](#) Latvian and Marshallese Ad Hoc Report; Lisa Moore, IBM; 2013-06-11

Ms. Lisa Moore: An ad hoc reviewed the two documents [N4449](#) and [N4450](#). The Unicode Standard was unable to support four characters required by Marshalles. The Latvian standards body had sent a representative - Mr. Robert Rozis. There were some typos in the document N4449; an update is sent. We discussed Latvian use of the cedilla, comma etc. We discussed potential ways to represent Latvian data correctly. There are four characters with name CEDILLA but the Glyph is with Comma below. The least disruptive way for users and the standard's architecture will be to add four new characters (see document [N4456](#)). These will be atomic characters with no decomposition. This report and Robert Rozis' document will be discussed at the UTC.

Discussion:

- a. Mr. Peter Constable: These will be confusable pairs - and that situation is not different from current situation.
- b. Mr. Michael Everson: I will prepare the contribution requesting the new characters.
- c. Ms. Lisa Moore: If these characters are accepted we should move on these quickly - otherwise Marshalles cannot be represented.
- d. Dr. Ken Whistler: If we do issue a PDAM before the next meeting, these could be included in it - and can be reviewed prior to the next meeting.
- e. Mr. Michel Suignard: We could also use the discussion list of WG2 -- we can get feedback on inclusion of these in PDAM. Online dispositions can also be done as we did earlier.

- f. Mr. Michael Everson: What would be implications for synchronization between Unicode and ISO/IEC 10646?
- g. Ms. Lisa Moore: We may go out of synch once in a while -- based on urgency of UTC members' requirements.
- h. Mr. Peter Constable: Current target is for Unicode 7 to be in synch with Amendment 2.
- i. Ms. Lisa Moore: We are discussing other potential content for Unicode 7 - not decided yet.
- j. Mr. Michael Everson: Hopefully this contribution is ready early for UTC discussions.

Action Item: National bodies are to review and feedback on the ad hoc report.

10.4.6 Draft UTN on User Guidelines for Uyghur, Kazakh, Kyrgyz and Chagatai

Input document:

[4463](#) Draft UTN for User Guidelines for Uyghur, Kazakh, Kyrgyz and Chagatai; Wushour Silamu (China), Debbi Anderson (SEI) and Peter Constable (Microsoft); 2013-06-11

Dr. Deborah Anderson: Document [N4463](#) is the draft for a UTN for Uighur combining sequences. It is in response to an action item. Mr. Woushur Silamu had asked for two more sequences. Messrs. Chen Zhuang and Woushur Silamu have reviewed this document and are OK with it.

Dr. Umamaheswaran: I will mark off the AI-59-8 as done.

11 Architecture issues

11.1 Charts presentation

11.1.1 Math characters and variation sequences

Input document:

[4434](#) Math characters and variation sequences; Michel Suignard (Project editor); 2013-05-22

Mr. Michel Suignard: In Amendment 2 we have added variation sequences in the code charts (nameslist). Example of 2272 and 2273 is shown in the document N4434. The glyph for the variant and the variation sequence is shown in the nameslist. We have to be consistent in order to show these glyphs, and we will need fonts to show them correctly. For Math I have been using STIX font. The use of STIX font will probably affect the glyphs in the math Symbols block. At the end of each block, the corresponding variation sequences and the glyphs are shown. I have choice of which symbols could be changed within the code charts using the new font that would be used for variants also.

Discussion:

- a. Dr. Ken Whistler: I think the Math symbols are better with the new font. There may be some characters like the No. symbol etc. we may have to revisit.
- b. Mr. Michael Everson: When would you like to have the feedback?
- c. Mr. Michel Suignard: Preferably this week. All the affected blocks that are affected are in document N4434.
- d. Mr. Andrew West: Would it be useful to list the blocks having the variants? I like the suggestion of the list of the variants separately. You can document that in the associated sub clause.
- e. Mr. Michel Suignard: there may be issues with Mongolian, Emoji etc. I do not want to commit to the separate list of variants for all the blocks. For Math we have the font and the work has been done. I may not be able to continue with the supplement table -- pending a solution for issues for non-Math symbols etc.
- f. Mr. Michael Everson: Quick scan through shows that there will not be too many.
- g. Mr. Michel Suignard: For the Emoji - there is no font available for variants called Emoji style. I need input suggestions on these.
- h. Mr. Peter Constable: For those characters that were unified from the Emoji set, there was a need to show those symbols in the original Emoji style -- the variation sequences were used to show the Emoji style. There are 100+ for these.
- i. Dr. Ken Whistler: Getting the appropriate glyphs for Emoji and showing them in the .pdf with the appropriate format, format like ISO/IEC10646 would be asking for trouble.
- j. Mr. Michel Suignard: We have a special case for CJK. For ideographic compatibility variants, we can have the compatibility glyph and can be shown. But if there are multiple sources for the compatibility ideograph, the glyphs could be different, depending on the source. We have different options - asking whether a variant for each source glyph should be shown.

- k. Dr. Umamaheswaran: We should be using the unified nominal glyph for the ideographic code point.
- l. Mr. Michel Suignard: We do keep that unified glyph -- it was typically the G glyph.
- m. Prof. Kyongsok Kim: We did not have a discussion what that nominal glyph could be for the charts which had multiple columns -- CJK main and CJK Compatibility block.
- n. Prof. Kyongsok Kim: I checked and among all the CJK compatibility ideographs 95% have only a single source. For all the others we can show more.
- o. Mr. Michel Suignard: I am not going to change the entry for showing the corresponding Unified ideograph for the compatibility ideograph. It will have only one glyph - typically the G column. If there is only a single source there is no confusion. The question I had raised was only for showing the variation sequence associated with the compatibility ideographs. I will be showing only a single glyph for the variant.

Disposition: Accept editor's proposal to use the STIX Font for the Math blocks described in document N4434. We will show only one representative glyph for the CJK compatibility variation sequences - the one that was used in the single column presentations earlier.

Relevant resolution:

M61.07 (Fonts for showing standardized variants in 4th edition): WG2 accepts the project editor's proposal (in document [N4434](#)) to use STIX font for showing the glyphs for standardized Math variants in the list of names. Glyphs for standardized variants for other scripts can be shown if an appropriate font is available. The standardized variants for compatibility Ideographs will continue to show only a single nominal glyph of the corresponding CJK Unified ideograph (that was used in the Unicode Standard before the multiple column charts were implemented in the charts for the Unicode Standard).

11.1.2 Presentation of Vertical scripts (Mongolian and Phags-pa)

Input document:

[4435](#) Presentation of Vertical scripts (Mongolian and Phags-pa); Michel Suignard (Project editor); 2013-05-27

Mr. Michel Suignard: This document is for vertical script presentation - like in Mongolian. Commercial fonts are meant for using in horizontal writings but rotated for vertical presentation. When we try to present the variants used for vertical writing, there are some production problems. An example is shown of horizontal writing of Mongolian. The way we present the glyphs in the charts impacts the technical report #50 on vertical text layout. The proposal is to display the glyphs in their horizontal layout. Some errata found in Unicode for Standardized Variants have been fixed. I also discovered a large number of additional variants that would be needed. It mostly affects Mongolian and Phags-Pa. Having a real font allows us to explore the multiple options for production.

Discussion:

- a. Mr. Andrew West: There is a group in China looking at these variants,
- b. Mr. Michel Suignard: The switching to horizontal layout does not affect significantly; but we may have to add some notes to clarify this.
- c. Mr. Andrew West: I personally don't like the horizontal layout for Phags Pa and Mongolian. I know people do it for technical reasons etc. If we are doing something for Mongolian we should do so for Phags Pa also. Some documents on Mongolian coding for users have charts with vertical layouts in the charts and horizontal layout examples.
- d. Mr. Peter Constable: I am wondering - the people who look at code charts are they the same as the implementers? From UTC perspective, when we work on UTF 50, we are providing guidelines for vertical writing. For example when Chinese is in vertical layouts, some transformations happen to glyphs. The transformation has to happen with a point of reference. It is beneficial from the UTR 50 perspective; horizontal layout would be beneficial with a stable point of reference for transformation.
- e. Mr. Michel Suignard: Phags Pa is a special case. If we do something for Mongolian, we need to do that for Phags Pa. I do have Phags Pa font with Horizontal points of reference, but they look different from what we are using in the charts to date.
- f. Mr. Andrew West: You will not want a mismatch.
- g. Mr. Michel Suignard: Whatever we do for ISO/IEC 10646 will be reflected in the charts for Unicode as well.
- h. Mr. Andrew West: You may want someone from China to assist.

- i. Mr. Michel Suignard: I have already done a prototype for Phags Pa. I can send it to you (Mr. Andrew West).

Disposition: Accept the proposed changes to font for presenting Mongolian and Phags Pa code charts as proposed in document [N4435](#).

Relevant resolution:

M61.08 (Fonts for Mongolian and Phags-pa for 4th edition): WG2 accepts the project editor's proposal (in document [N4435](#)) to use fonts based on horizontal writing orientation as reference for generating the charts for Mongolian and Phags-pa scripts in the 4th edition.

12 Progression of Work Items

12.1 Amendment 2 to 3rd edition

See relevant resolution *M61.01* on page 19.

12.2 4th edition

Relevant resolution:

M61.10 (Progression of 4th edition): WG2 instructs its project editor to prepare and to forward the final text of 4th edition of the standard, which will include the changes arising from resolution **M61.02 to M61.09** above, along with the final disposition of comments (document [N4454](#)) to the SC2 secretariat for processing as a DIS ballot. The final code charts will be in document N4459. The target starting dates are unchanged: DIS 2013-08 and FDIS 2014-03.

12.3 Future Amendment 1 to 4th edition

Relevant resolution:

M61.13 (Project subdivision for future first amendment to 4th edition): WG2 instructs its convener and project editor to create a project subdivision proposal document (will be document N4465) for creation of an amendment to ISO/IEC 10646 4th edition, to include the additions accepted in resolutions **M61.11** and **M61.12** above. The schedule for the Amendment will be determined by the project editor. WG2 notes that Nushu, Mongolian Square, Soyombo and Marchen are some candidate scripts close to maturity.

13 Liaison reports

13.1 Unicode Consortium

Input document:

[4447](#) Unicode Liaison Report to WG2; Unicode Consortium; 2013-06-10

[4446](#) Proposed Update Unicode Standard Annex #9

Mr. Peter Constable: The first topic is -- Unicode 6.3 is under preparation. Its primary role is to update the bidi algorithm. The UAX on bidi is sent in for information to WG2 - doc. [N4446](#). That doc is a draft update to the bidi algorithm - normatively referenced in ISO/IEC 10646. It contains some significant changes to bidi algorithm to address some of the problems the implementers are encountering. One is related to pairs of punctuation marks - which have to be treated at the same embedding level, but are not. Additional embedding controls are also being generated. It is coordinated with work of w3c work on embedding markup text. The changes will keep the bidi algorithm in synch with CSS work in w3c.

The second topic is related to Latvian. We discussed this topic earlier.

The UTC evaluated various options on the Hungarian - decided to support Hungarian.

We had communicated to UTC members the issues faced by Lithuanian users. It is being addressed by CLDR committee, and we have at this meeting requested Lithuanian experts to participate in CLDR.

Action item: National bodies to take note (and provide any comments to the Unicode Consortium) of the liaison report and of the proposed update to the Bidirectional Algorithm.

13.2 SEI

Input document:

[4440](#) SEI Liaison report; Deborah Anderson (SEI); 2013-05-31

Dr. Deborah Anderson: The first part of this report gives a list of proposals that have been made. The second part shows list of scripts under research and continuing investigations.

Discussion:

- a. Mr. Michel Suignard: I will double check the list of items that are being carried forward.
- b. Mr. Peter Constable: What would be status on SignWriting? We have reviewed some of the earlier documents. There is some work being done with Wiki. There will be transcoding from their current use of pictures to any encodings.
- c. Dr. Deborah Anderson: Mr. Anshuman Pandey will be going to India and work with the Nepal experts and user community on the different proposals.

Action Item: National bodies are to take note and provide feedback.

14 Other business

14.1 Future Meetings

14.1.1 Meeting 62 – 2014-02 24-28 - Adobe, San Jose, CA, USA (Unicode: Host)

(Expect invitation and logistics to be sent out)

14.1.2 Meeting 63 – 2014-09 Sri Lanka (tentative); (China backup) (co-located with SC2)

Preference will be for end of September. The host is flexible on the dates. Tentative - 22/26 Sept 2013 or 29 Sep / Oct 3 2013. Waiting for info from Sri Lanka.

UTC is May 6 to 10 2014.

14.1.3 Meeting 64 –2015-05 Spring/Summer - looking for host (Europe?)

Suggestion for meeting 64 is for late April or Early June in 2015.

Possibly Germany - wait for Mr. Karl Pentzlin's input. The IRG meets 19/22 May 2015. UTC is early May 2015. China could be considered also - since several of the scripts are from Chinese experts.

We just hosted IRG - but WG2 hosting is difficult for HKSAR. If we are considering TCA as host, Chinese delegates will have difficulty getting visa. We need firmer idea at the next meeting.

Relevant resolution:

M61.16 (Future meetings): WG2 endorses the following schedule for future meetings of WG2 and of IRG:

WG2 meetings:

Meeting 62 – 2014-02-24/28, Adobe, San Jose, CA, USA (host: the Unicode Consortium)

Meeting 63 – 2014-09-29/10-03 (or 2014-09-22/26) (date to be confirmed), Colombo, Sri Lanka; (with China as backup) (co-located with SC2)

Meeting 64 - 2015 (late April or early June); looking for host (Europe?)

IRG meetings:

IRG Meeting 41, Japan, 2013-11-18/22

IRG Meeting 42, Qingdao, China, 2014-05-19/23

IRG Meeting 43, USA, 2014-11-17/21

15 Closing

15.1 Approval of Resolutions of Meeting 61

Output document:

[4404](#) Resolutions of meeting 61 in Vilnius, Lithuania; WG2; 2013-06-14

Experts from Canada, China, Finland, Ireland, IRG, Japan, JTC1/SC35 (Liaison), Korea (Republic of), Lithuania, SEI - UC Berkeley (Liaison), TCA (Liaison), the Unicode Consortium (Liaison), UK and USA were present when the following resolutions were adopted. Even though the IRG convener was not present, there were a number of other IRG member bodies present.

The draft resolutions prepared by the recording secretary, and previewed by the drafting committee, was reviewed and a total of 18 resolutions were adopted, some with edits. All the 18 resolutions were adopted unanimously.

See document [N4404](#) for the adopted set of resolutions. The net change to the various character counts are as follows:

Character count 110181 in 3rd edition - remained unchanged.

Addition of 1769 in Amd.1 to 3rd edition - remained unchanged.

Addition of 1177 in PDAM 2 to 3rd edition - decreased to 1070 additions.

Addition of 7437 (adjusted down from 7438 due to a deletion of a duplicate) in CD of 4th edition - increased to 7565 additions.

The total character count **120564** (adjusted total at end of CD of 4th edition) increased to **120585**.
72 additions have been accepted for a future first Amd. to the 4th edition
The total number of characters allocated to date is **120657**.

Appreciation:

Relevant resolutions:

M61.17 (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.

M61.18 (Appreciation to Host): WG2 thanks the Lithuanian Standards Board and its members, in particular Messrs. Algirdas Krupovnickas, Valteris Mūžas, Genadijus Kulvietis, Vladas Tumasonis, Virginijus Dadurkevičius, and Ms. Grasilda Blažienė, for hosting the meeting, providing excellent meeting facilities, for the tour of the Institute of the Lithuanian Language, and for their kind hospitality and dinner.

15.2 Adjournment

The meeting adjourned at 11:44h.

16 Action items

All the action items recorded in the minutes of the previous meetings from 25 to 51, and, 53 to 56 have been either completed or dropped. Status of outstanding action items from previous meetings 52, 57 to 60, and new action items from this meeting 61 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)
- Meeting 59, 2012-02-13/17, Mountain View, CA, USA (document N4253)
- Meeting 60, 2012-10-22/27, Chiang Mai, Thailand, (document N4353)
- Meeting 61, 2013-06-01/14, Vilnius, Lithuania, (document N4403) (this document)

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

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.	<i>M52.5 (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 to M61 – in progress.	In progress

16.2 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-57-8	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	
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. M58 to M61 – in progress.	In progress.

16.3 Outstanding 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.)	Status
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. M58 to M61 – in progress.	In progress.
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 . M58 to M61 – in progress.	In progress.
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. M58 to M61 – in progress.	In progress.

16.4 Outstanding action items from meeting 59, Mountain View, CA, USA, 2012-02-13/17

Item	Assigned to / action (Reference resolutions in document N4254 , and unconfirmed minutes in document N4253 for meeting 59.)	Status
AI-59-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
s.	With reference to document N4173 - IRG Errata Report, to check for possible Source-Mapping changes that we can request IRG to review and put a solution in place. M60 and M61 -- in progress.	In progress.

16.5 Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27

Item	Assigned to / action (Reference resolutions in document N4254 , and unconfirmed minutes in document N4253 for meeting 59.)	Status
AI-60-7	China (Mr. Chen Zhuang)	
	To take note of and act upon the following items:	

a.	<i>M60.20 (Nushu)</i> : WG2 invites China to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nushu ad hoc report in document N4376 . M61 -- in progress.	In progress.
b.	To provide whatever feedback Chinese experts have on Tangut to the authors of Tangut proposals at the earliest, and to ensure that a comparison is made between their new font with the current font used in the proposal charts. M61 -- in progress.	In progress.
AI-60-9	SEI - Dr. Debbie Anderson	
b.	Is invited to revise the proposal in document N4262 on Unifon and other characters based on ad hoc discussions at this meeting. M61 -- in progress.	In progress.
AI-60-10	Irish national body - Mr. Michael Everson	
a.	To get more information related to the status, its stability and other clarifications based on the discussions in the meeting on document N4323 - Mwangwego script. M61 -- in progress.	In progress.

16.6 New action items from meeting 61, Vilnius, Lithuania, 2013-06-10/14

Item	Assigned to / action (Reference resolutions in document N4404 , and unconfirmed minutes in document N4403 for meeting 61 (this document you are reading).	Status
AI-61-1	Recording Secretary - Dr. V.S. UMaaheswaran	
a.	To finalize the document N4404 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N4404 .
b.	To finalize the document N4403 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N4403 .
AI-61-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items:	
a.	<i>M61.15 (Roadmap snapshot)</i> : WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N4415) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
b.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list of documents under AI-61-9 - items a and d - below.)	
AI-61-3	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>M61.01 (Disposition of ballot comments and progression of Amd. 2)</i> : WG2 accepts the disposition of DAM 2 ballot comments in document N4453 . The following significant changes are noted: <ul style="list-style-type: none"> • A7AE LATIN SMALL LETTER INVERTED ALPHA is moved to code position AB64. • A7AF LATIN LETTER SMALL CAPITAL OMEGA is moved to code position AB65 and renamed to GREEK LETTER SMALL CAPITAL OMEGA. • Rename 115C4 from SIDDHAM SEPARATOR-1 to SIDDHAM SEPARATOR DOT. • Rename 115C5 from SIDDHAM SEPARATOR-2 to SIDDHAM SEPARATOR BAR. • In the block name and all character names in the block 1E800..1E8DF - replace MENDE with MENDE KIKAKUI. • Move 'Hungarian' out of Amendment 2 into the 4th edition reverting its name to 'Old Hungarian'. • Remove 'Old Hungarian' from the title page of the Amendment. • Addition of a new bullet and associated text on use of FF1F to indicate an 'undescribed component' in an Ideographic Description Sequence in Annex I.1. • Addition of 20BC MANAT SIGN, with its glyph from document N4445. WG2 further instructs its project editor to prepare and to forward the final text of Amendment 2 to the 3 rd Edition, along with the final disposition of comments (document N4453) to the SC2 secretariat for processing as an FDAM ballot. The final code positions, glyphs and names are in the charts in document N4458 .	Completed; document 02n4296.
b.	<i>M61.02 (Disposition of ballot comments of CD of 4th edition)</i> : WG2 accepts the disposition of CD ballot comments in document N4454 . The following significant	

	<p>changes are noted:</p> <p>a. Insert the 108 characters of 'Hungarian' that was removed from Amendment 2, into 4th edition with name of the block and the characters in the block reverted to 'Old Hungarian'.</p> <p>b. Correct the following source references for ideographs:</p> <ul style="list-style-type: none"> • G source of 03828 from GHZ-10810.02 to GHZ-101810.03 • Remove G source for 0400B (keep its T source reference) • Remove G source for 03ABF (keep its T and J source references) <p>c. Rename A78F from LATIN LETTER MIDDLE DOT to LATIN LETTER SINOLOGICAL DOT, with its glyph changed to be a larger dot.</p> <p>d. Move the range of characters 124D3...12544 up by one position to 124D2...12543, in the Early Dynastic Cuneiform block.</p> <p>e. Rename 145B1 from ANATOLIAN HIEROGLYPH A383 COMBINING RA OR RI to ANATOLIAN HIEROGLYPH A383 RA OR RI.</p> <p>f. In Hatran block:</p> <ul style="list-style-type: none"> • Delete four characters - 108F3 HATRAN LETTER RESH, 108F9 HATRAN NUMBER TWO, 108FA HATRAN NUMBER THREE and 108FB HATRAN NUMBER FOUR. • Rename 108E3 from HATRAN LETTER DALETH to HATRAN LETTER DALETH-RESH. • Move 108F8 HATRAN NUMBER ONE to vacated code position 108FB. • Create additional information related to Ideographs in Annex P in a format suitable to accommodate the ballot comments from Japan. <p>g. Reallocate five characters in Sharada block (based on document N4417):</p> <ul style="list-style-type: none"> • Move SHARADA CONTINUATION SIGN from 111CE to 111DD. • Move SHARADA HEADSTROKE from 111DB to 111DC. • Move SHARADA SIGN SIDDHAM from 111DC to 111DB. • Move SHARADA SECTION MARK-1 from 111DD to 111DE. • Move SHARADA SECTION MARK-2 from 111DE to 111DF. <p>h. CJK Extension E (per document N4439):</p> <ul style="list-style-type: none"> • Delete six characters 2C7E1, 2B934, 2BBCF, 2C163, 2C156, and 2C1BF. • Rearrange the chart to remove vacated code positions. • Correct the attribute for 2B8A9 from 9.7 to 41.6, <i>and any associated reordering</i>. 	
c.	<p><i>M61.03 (Subheadings in the nameslist in 4th edition):</i> WG2 accepts the following subheading insertions and replacements (from attachment 3 in document N4409) in the nameslist for the 4th edition of the standard:</p> <p>Insert 'Old <i>initial consonants</i>' between lines for 1112 and 1113. Insert 'Old <i>medial vowels</i>' between lines for 1175 and 1176. Insert 'Old <i>final consonants</i>' between lines for 11C2 and 11C3. Replace 'Initial <i>consonants</i>' with 'Old <i>initial consonants</i>' before the line for A960. Replace 'Medial <i>vowels</i>' with 'Old <i>medial vowels</i>' before the line for D7B0. Replace 'Final <i>consonants</i>' with 'Old <i>final consonants</i>' before the line for D7CB. Replace 'Modern <i>letters</i>' with 'Consonant <i>letters</i>' before the line for 3131. Insert 'Vowel <i>letters</i>' before the line for 314F. Replace 'Old <i>letters</i>' with 'Old <i>consonant letters</i>' before the line for 3165. Insert 'Old <i>vowel letters</i>' before the line for 3187.</p>	
d.	<p><i>M61.04 (Clause 22.1 in 4th edition):</i> WG2 accepts the following change (proposed in document N4411) in clause 22.1 in the 4th edition of the standard:</p> <p>Replace "In rendering ... (from ... 11FF) is displayed ..." With "In rendering ... (from ... 11FF, HANGUL JAMO EXTENDED-A block: A960 to A97F and HANGUL JAMO EXTENDED-B block: D7B0 to D7FF) is displayed ..."</p>	
e.	<p><i>M61.05 (Clause 23.1 in 4th edition):</i> WG2 accepts replacing the list of Hanja K sources with the following (per discussion on document N4411) in clause 23.1 in the 4th edition of the standard:</p> <ul style="list-style-type: none"> K0 KS C 5601-1987 (now known as KS X 1001:2004). K1 KS C 5657-1991 (now known as KS X 1002:2001). K2 PKS C 5700-1 1994 (Reedited and standardized as KS X1027-1:2011). K3 PKS C 5700-2 1994 (Reedited and standardized as KS X1027-2:2011). 	

	<p>K4 PKS 5700-3: 1998 (Reedited and standardized as KS X1027-3:2011). K5 Korean IRG Hanja Character Set 5th Edition: 2001 (Reedited and standardized as KS X1027-4:2011). and, deleting the current Note 4.</p>	
f.	<p><i>M61.06 (New data format for CJK data files for 4th edition):</i> WG2 accepts the proposed reformatting (based on document N4436) of the CJK data files, allowing merging CJK_U, CJK_C and IICORE.txt files into a single file, and instructs its project editor to implement the new format along with any associated explanatory text in the 4th edition of the standard.</p>	
g.	<p><i>M61.07 (Fonts for showing standardized variants in 4th edition):</i> WG2 accepts the project editor's proposal (in document N4434) to use STIX font for showing the glyphs for standardized Math variants in the list of names. Glyphs for standardized variants for other scripts can be shown if an appropriate font is available. The standardized variants for compatibility Ideographs will continue to show only a single nominal glyph of the corresponding CJK Unified ideograph (that was used in the Unicode Standard before the multiple column charts were implemented in the charts for the Unicode Standard).</p>	
h.	<p><i>M61.08 (Fonts for Mongolian and Phags-pa for 4th edition):</i> WG2 accepts the project editor's proposal (in document N4435) to use fonts based on horizontal writing orientation as reference for generating the charts for Mongolian and Phags-pa scripts in the 4th edition.</p>	
i.	<p><i>M61.09 (Additional characters for CD of 4th edition):</i> WG2 accepts the following additional characters for the 4th edition of the standard:</p> <p>a. Following 6 Siddham variant characters (with their glyphs from document N4407R) in Siddham block: 115E0 SIDDHAM LETTER I VARIANT FORM A 115E1 SIDDHAM LETTER I VARIANT FORM B 115E2 SIDDHAM LETTER II VARIANT FORM A 115E3 SIDDHAM LETTER U VARIANT FORM A 115E4 SIDDHAM VOWEL SIGN U VARIANT FORM A 115E5 SIDDHAM VOWEL SIGN UU VARIANT FORM A (note: 115E4 and 115E5 are combining characters).</p> <p>b. Following 14 Siddham section marks (from document N4336 modified with names in document N4457) in Siddham block: 115CA SIDDHAM SECTION MARK WITH TRIDENT AND U-SHAPED ORNAMENTS 115CB SIDDHAM SECTION MARK WITH TRIDENT AND DOTTED CRESCENTS 115CC SIDDHAM SECTION MARK WITH RAYS AND DOTTED CRESCENTS 115CD SIDDHAM SECTION MARK WITH RAYS AND DOTTED DOUBLE CRESCENTS 115CE SIDDHAM SECTION MARK WITH RAYS AND DOTTED TRIPLE CRESCENTS 115CF SIDDHAM SECTION MARK DOUBLE RING 115D0 SIDDHAM SECTION MARK DOUBLE RING WITH RAYS 115D1 SIDDHAM SECTION MARK WITH DOUBLE CRESCENTS 115D2 SIDDHAM SECTION MARK WITH TRIPLE CRESCENTS 115D3 SIDDHAM SECTION MARK WITH QUADRUPLE CRESCENTS 115D4 SIDDHAM SECTION MARK WITH SEPTUPLE CRESCENTS 115D5 SIDDHAM SECTION MARK WITH CIRCLES AND RAYS 115D6 SIDDHAM SECTION MARK WITH CIRCLES AND TWO ENCLOSURES 115D7 SIDDHAM SECTION MARK WITH CIRCLES AND FOUR ENCLOSURES</p> <p>c. Following 4 characters (with their glyphs from document N4213R) in Latin Extended-E block: AB60 LATIN SMALL LETTER SAKHA YAT AB61 LATIN SMALL LETTER IOTIFIED E AB62 LATIN SMALL LETTER OPEN OE AB63 LATIN SMALL LETTER UO</p> <p>d. Following 4 arrows (with their glyphs from document N4318) in Miscellaneous Symbols and Arrows block: 2BEC LEFTWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS 2BED UPWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS 2BEE RIGHTWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS 2BEF DOWNWARDS TWO-HEADED ARROW WITH TRIANGLE ARROWHEADS</p>	

	<p>e. 1F54F BOWL OF HYGIEIA (with its glyph from document N4393) in the Miscellaneous Symbols and Pictographs block</p> <p>f. A69E COMBINING CYRILLIC LETTER EF (with its glyph from document N4390) in the Cyrillic Extended-B block</p> <p>(note: several of the proposal documents referenced above have proposed annotations or changes to existing annotation in the names list)</p>	
	<p>j. To accommodate the typographical errors in the text of 4th edition reported in document N4421.</p>	
	<p>k. <i>M61.10 (Progression of 4th edition)</i>: WG2 instructs its project editor to prepare and to forward the final text of 4th edition of the standard, which will include the changes arising from resolution M61.02 to M61.09 above, along with the final disposition of comments (document N4454) to the SC2 secretariat for processing as a DIS ballot. The final code charts will be in document N4459. The target starting dates are unchanged: DIS 2013-08 and FDIS 2014-03.</p>	<p>Items b to k completed; document 02n4288.</p>
	<p>l. <i>M61.11 (Tamil and Tamil Supplement)</i> WG2 resolves to accept the following for inclusion in a future amendment to the 4th edition of the standard:</p> <p>a. Add the following six Tamil characters (with their glyphs based on document N4430) in the Tamil block:</p> <p>0BDF TAMIL CURRENT SIGN 0BFB TAMIL TRADITIONAL NUMBER SIGN 0BFC TAMIL TRADITIONAL CREDIT SIGN 0BFD TAMIL AND ODD SIGN 0BFE TAMIL SPENT SIGN 0BFF TAMIL TOTAL SIGN</p> <p>b. Create a new block named Tamil Supplement in the range 11FC0...11FFF and populate it with 49 characters with their glyphs, names and code positions from sections 3 and 4 in document N4430.</p>	
	<p>m. <i>M61.12 (Character additions for a future amendment to 4th edition)</i> WG2 accepts to add the following in a future amendment to the 4th edition of the standard:</p> <ul style="list-style-type: none"> • 1032F OLD ITALIC LETTER TTE as proposed in document N4395. • 0C5A TELUGU LETTER RRRA with its glyph based on what is shown in section 1 of doc N4215. • Two characters - 218A TURNED DIGIT TWO and 218B TURNED DIGIT THREE (with their glyphs from document N4399) in the Number Forms block. • Ten Malayalam minor fractions (with their glyphs from document N4429) in the Malayalam block: 0D58 MALAYALAM FRACTION ONE ONE-HUNDRED-AND-SIXTIETH 0D59 MALAYALAM FRACTION ONE FORTIETH 0D5A MALAYALAM FRACTION THREE EIGHTIETHS 0D5B MALAYALAM FRACTION ONE TWENTIETH 0D5C MALAYALAM FRACTION ONE TENTH 0D5D MALAYALAM FRACTION THREE TWENTIETHS 0D5E MALAYALAM FRACTION ONE FIFTH 0D76 MALAYALAM FRACTION ONE SIXTEENTH 0D77 MALAYALAM FRACTION ONE EIGHTH 0D78 MALAYALAM FRACTION THREE SIXTEENTHS • A8FD DEVANAGARI JAIN OM (with its glyph from document N4408) in the Devanagari Extended block. • 0D4F MALAYALAM LETTER CHILLU LLL (with its glyph from document N4428) in the Malayalam block. • Two characters - 11350 GRANTHA OM (with its glyph from document N4431), and 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE (with its glyph from document N4432), in the Grantha block. <p>(note: several of the proposal documents referenced above have proposed annotations or changes to existing annotation in the names list)</p>	
	<p>n. <i>M61.13 (Project subdivision for future first amendment to 4th edition)</i>: WG2 instructs its convener and project editor to create a project subdivision proposal document (will be document N4465) for creation of an amendment to ISO/IEC 10646 4th edition, to include the additions accepted in resolutions M61.11 and M61.12 above. The schedule for the Amendment will be determined by the project editor. WG2 notes that Nushu, Mongolian Square, Soyombo and Marchen are some candidate scripts close to maturity.</p>	<p>Items l, m and n completed; documents N4465 and N4484 (PDAM1)</p>

	o.	To provide input to the IRG on the z-source related question discussed under item 9 in section 8.1 of these minutes (document N4403).	
	p.	To send the font and CJK Extension E chart to the IRG convener for quick verification by IRG.	
AI-61-4		IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
		To take note of and act upon the following items:	
AI-61-5		Ad hoc group on roadmap (Dr. Umamaheswaran)	
	a.	To update the Roadmaps with the results from this meeting.	
AI-61-6		China (Mr. Chen Zhuang), SEI (Dr. Deborah Anderson) and Unicode (Mr. Peter Constable)	
		To take note of and act upon the following items:	
	a.	<i>M61.14 (Nushu)</i> : WG2 invites China, Ireland and SEI to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nushu ad hoc report in document N4461 . The resulting document would be candidate for inclusion in the next amendment to the 4th edition of the standard.	
AI-61-7		Unicode Consortium - Mr. Peter Constable	
	a.	To communicate the corrections needed for Ideographic source references in Unihan, based on discussions on ballot comments T1 on Amd. 2 in section 7.2.1 of these minutes (document N4403).	
AI-61-8		Japanese national body - Mr. Tetsuji Orita	
	a.	To communicate to Japanese experts document N4369 - response to concerns expressed in document N4361 on Siddham proposal, and the discussion in the meeting.	
AI-61-9		All national bodies and liaison organizations	
		To take note of and provide feedback on the following items.	
	a.	The following documents were introduced at meeting 61 with a request for national body review and feedback to the authors: N4389 - Preliminary Proposal to Encode Nandinagari N4412 - Pau Cin Hau Syllabary N4413 - Proposal to encode the Mongolian Square script N4414 - Revised Proposal to Encode the Soyombo Script, and, N4456 - Latvian and Marshallese Ad Hoc Report, concerning letters with Cedillas and Commas below.	
	b.	Unicode Liaison Report to WG2 in document N4447 , and Proposed Update Unicode Standard Annex #9 (on Bidi Algorithm) in document N4446 .	
	c.	SEI liaison report in document N4364 .	
	d.	Following items are carried forward from earlier meetings: Scripts, new blocks or large collections (awaiting updated proposals from the authors): Afaka script (N4292); Bagam script (N4293); Balti 'B' (N4016); Balti scripts (N3842); Bhaiksuki (N4121); Chinese Chess symbols (N3910 , N3966 , 3992); Coorgi-Cox Alphabet (N4287); Dhimal (N4140); Dhives Akuru (N3848); Diwani Numerals (N4119); Diwani Siyaq Numbers (N4122); English Phonotypic Alphabet (EPA) (N4079); Garay script (N4261); Gondi script (N4291); Indic Siyaq (N4123); Jenticha (N4028); Jurchen (N4077); Kawi script (N4266); Khatt-i Baburi (N4130); Khambu Rai (N4018); Khema (N4019); Kirat Rai (N4037); Kpelle (N3762); Landa (N3768); Loma (N3756); Magar Akkha (N4036); Moon (N4128); Mwangwego (N4323); Nepaalalipi script (N4322); Nepal Himalayish (N4347); Newar script (N4184); Old Yi (N3288); Obsolete Simplified Chinese Ideographs (N3695); Ottoman Siyaq System Numerals (N4118); Ottoman Siyaq (N4124); Persian Siyaq (N4125); Pyu (N3874); Raqm Numerals (N4117); Rohingya (N4283); Tangut script (N4325 , N4327); Tangut radicals (N4326 , N4327); Tikamuli (N3963); Tolong Siki (N3811); Tulu (N4025); Unifon (N4262); Woleai (N4146); Zou (N4044); Symbols of ISO/IEC 9995-7:2009 and its Amendment 1 (N4317). Additions to existing blocks: The following are awaiting updated proposals from the authors: Heraldic hatching characters (N4011); Latin letters used in the Former Soviet Union (N4162); Metrical symbols (N4174); Historic currency signs of Russia (N4208); Low One Dot Leader (N4209); Linguistic Doubt Marks (N4210); Two Greek modifier letters for Critical Apparatuses (N4211); Combining decimal digits above (N4212); Six punctuation characters (N4256); "Capitalized Commercial At" symbol (N4257); Bodoni Ornament symbols (N4299).	

<p>e. <i>M61.16 (Future meetings):</i> WG2 endorses the following schedule for future meetings of WG2 and of IRG:</p> <p>WG2 meetings:</p> <ul style="list-style-type: none"> Meeting 62 – 2014-02-24/28, Adobe, San Jose, CA, USA (host: the Unicode Consortium) Meeting 63 – 2014-09-29/10-03 (or 2014-09-22/26) (date to be confirmed), Colombo, Sri Lanka; (with China as backup) (co-located with SC2) Meeting 64 - 2015 (late April or early June); looking for host (Europe?) <p>IRG meetings:</p> <ul style="list-style-type: none"> IRG Meeting 41, Japan, 2013-11-18/22 IRG Meeting 42, Qingdao, China, 2014-05-19/23 IRG Meeting 43, USA, 2014-11-17/21 	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

***** END OF MINUTES *****