



**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 62
Adobe, San Jose, CA, USA; 2014-02-24/28

SOURCE: V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary
Mike Ksar (mikeksar@10646.com), 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: 2014-09-22

DISTRIBUTION: SC 2/WG 2 members and Liaison organizations

MEDIUM: Acrobat PDF file

NO. OF PAGES: 48 (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 **N4553**
2014-09-16

Title:	Unconfirmed minutes of WG 2 meeting 62 Adobe, San Jose, CA, USA; 2014-02-24/28
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary Mike Ksar (mikeksar@10646.com), Convener
Action:	WG 2 members and Liaison organizations
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 members and liaison organizations

1 Opening and roll call

Input document:

[4505](#) 2nd call for meeting 62 - Preliminary Agenda; Mike Ksar; 2014-02-14

The meeting was convened at 10:30h.

Mr. Mike Ksar: Welcome to meeting 62 here in San Jose. We have some new experts attending the meeting. If you have any documents to put on the agenda you need to give it to me either on a flash card or send me via email. I will assign a document number for you and we will see how we can fit it into the agenda. A hard copy of the agenda is being circulated. We do not distribute hard copies. If you need to get something printed please contact our host Dr. Ken Lunde for assistance. We have Ms. Lisa Moore, who will say a few words, on behalf of our host, the Unicode Consortium.

Ms. Lisa Moore: I do want to welcome everyone on behalf of the Unicode consortium. It will be a good meeting. I would like to say something about Mr. Mike Ksar. He has been the convener of WG2 for 24 years. Many of you have been working with hm. Over the years he has made tremendous contributions, helping to forge cooperation between ISO/IEC 10646 and the Unicode Standard. We would like to present him with his own convener's gavel. Please do sign the sheet of paper for the dinner tonight. A sign up sheet is being circulated. We would like to have a count today.

Mr. Mike Ksar: Thank you. My grand children will be working with the gavel. We would like Dr. Ken Lunde to say a few words about the logistics.

Dr. Ken Lunde: For refreshments, there are snacks, coffee etc. in the room right across. In the afternoon we will have some refreshments brought in. For lunch we should break before 11:30h or after 12:30h to avoid the rush in the cafeteria. There is another room next door for ad hoc meetings. Each of you should have information about access to wireless - you have been sent the information. You will need to pick up a badge each day.

Mr. Mike Ksar: The latest agenda is on display. It has been updated with all the documents I have received so far.

1.1 Roll Call

Input document:

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

Mr. Mike Ksar: Dr. Umamaheswaran has prepared the experts list for you to verify and correct if needed. It is being circulated for your review. Please provide your business card also so that we can have your name and location captured correctly.

The following **30** attendees representing **7** national bodies, **4** liaison organizations, and **2** invited experts, were present or participated via telephone at different times during the meeting.

Name	Representing	Affiliation
Mike KSAR	.Convener, USA	Independent
Taichi KAWABATA (Siddham ad hoc)	.Expert - Japan	NTT
Andrew GLASS	.Expert - USA	Microsoft Corporation

Name	Representing	Affiliation
(Siddham ad hoc)		
LU Qin	.IRG Rapporteur	Hong Kong Polytechnic University
Kuang-Shun (Rick) LIN	.TCA – Liaison	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs
Lin-Mei (Selena) 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
PENG Haitao	China	China Publishing Group Digital Media Corporation
WEN Yingming	China	China Publishing Group Digital Media Corporation
Wushour SILAMU	China	Xinjiang University
Tero AALTO	Finland	CSC-IT Center for Science
Michael EVERSON	Ireland; Contributing Editor	Evertime
Kiyonori NAGASAKI	Japan	International Institute for Digital Humanities, Tokyo
Satoshi YAMAMOTO	Japan	Hitachi Ltd.
Toshiya SUZUKI	Japan	Hiroshima University
Eldar ABDRAHIMOV	Russian Federation	The Central Bank of Russian Federation
Yury TIMOFEEV	Russian Federation	The Central Bank of Russian Federation
Anshuman PANDEY	SEI, UC Berkeley; Liaison	University of Michigan
Craig CUMMINGS	USA	Informatica
Ken LUNDE	USA	Adobe
Lisa MOORE	USA	IBM Corporation
Roozbeh POURNADER	USA	Google
Steven LOOMIS	USA	IBM Corporation
Ken WHISTLER	USA; Contributing Editor	SAP America, Inc.
Michel SUIGNARD	USA; Project Editor	Unicode Consortium
Deborah ANDERSON	USA; SEI, UC Berkeley – Liaison	Department of Linguistics, University of California, Berkeley
Peter CONSTABLE	USA; Unicode Consortium – Liaison	Microsoft Corporation

Drafting committee: Messrs. Mike Ksar, Michel Suignard, Satoshi Yamamoto and Dr. Deborah Anderson volunteered to assist Dr. Umamaheswaran with the preparation and review of the draft meeting resolutions.

Mr. Mike Ksar: We have some experts from Russia for the first time to WG2. It is good to see you here - welcome to WG2. Now, some items about our logistics. Monday through Thursday are for technical discussions, including disposition of ballot comments. By Thursday noon, there would be OWG-SORT for about an hour and half. The drafting committee would meet and work on draft resolutions. The drafting committee meets Friday morning before the WG2 meeting. WG2 will meet to adopt the resolutions, starting around 10:00h. The adoption takes about an hour. All documents will be posted soon after the meeting to the WG2 site. We will meet starting at 09:00h for the rest of the week. We usually adjourn around 18:00h. Some ad hoc meetings may happen after the meeting. Dr. Ken Lunde will advise us after checking with security as to how long we can stay in the evenings. We will skip the items that are marked as FYI on the agenda - you can read the relevant documents.

2 Approval of the agenda

Input document:

[4505](#) 2nd call for meeting 62 - Preliminary Agenda; Mike Ksar; 2014-02-14

[N4505-A](#) Agenda

Mr. Mike Ksar reviewed the agenda.

The following changes are noted:

- New document [N4557](#) from Mr. Suzuki Toshiya added as item 9.1.1.5
- Added document [N4487](#) under item 10.3.5 on Cherokee
- Added document [N4558](#) (IRG N1973) on Extension C - change for source and glyph under IRG items.

We will discuss the items under 'Carried forward items' later.

Mr. Mike Ksar: We will have Siddham ad hoc this (Monday) afternoon - lead will be Dr. Deborah Anderson. The output would have influence on the disposition of comments. Nūshu ad hoc will be on Tuesday during a working lunch - lead will be Mr. Taro Aalto. Hopefully we will finish by noon on Friday. As the meeting progresses, we may be jumping around in the agenda - not necessarily sequentially.

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 [N4505-A](#). 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 did not have any discussion are dropped from these minutes, and any relevant documents that were not discussed 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	2
2	Approval of the agenda	3
3	Approval of minutes of meeting 61	5
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	6
4.4	Outstanding action items from meeting 59, Mountain View, CA, USA, 2012-02-13/17	7
4.5	Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	7
4.6	Outstanding action items from meeting 61, Vilnius, Lithuania, 2013-06-10/14	7
5	JTC1 and ITTF matters	12
6	SC2 matters	12
6.1	Summary of Voting DIS – 4th edition	12
6.2	Proposed Disposition of Comments	12
6.2.1	Ireland: Negative	13
6.2.2	Japan: Positive with comments	13
6.2.3	United Kingdom: Positive with comments	14
6.2.4	USA: Negative	15
6.3	Summary of Voting on 10646-PDAM 1 to 4th edition	17
6.4	Proposed Disposition of Comments PDAM1 (N4520)	17
6.4.1	Japan: Negative	18
6.4.2	United Kingdom: Negative	18
6.4.3	USA: Positive with comments	18
7	WG2 matters	19
7.1	Principles and Procedures	19
7.2	Roadmap Snapshot	19
8	IRG status and reports	19
8.1	IRG Meetings 41 Summary Report	19
8.2	Urgently needed characters from China	20
8.3	Request of Changing One CJK_C Source and Glyph (N4558)	21
9	Script contributions related to ballots:	21
9.1	Related to 10646 4th edition	21
9.1.1	Siddham script	21
9.1.2	Declaration for removing the “Old Hungarian” block (N4492)	23

Item Number	Title	Page
9.1.3	Representation of CJK ideographs updated in JIS-2004	23
9.2	Related to PDAM 1 – 4th edition	24
9.2.1	Nüshu script	24
9.2.2	Names of Tamil fractions and symbols	25
10	Script contributions not related to ballots	26
10.1	Carried forward	26
10.2	New Scripts or Blocks	27
10.2.1	Future additions to 10646	27
10.2.1.1	Clause 24.5.4 - Uniqueness of Name Aliases	27
10.2.2	Marchen script	27
10.2.3	Eskaya script of the Philippines	28
10.2.4	Ranjana script	28
10.2.5	Bhaiksuki script	28
10.2.6	Scripts for Tangsa	29
10.2.7	Adlam script	29
10.2.8	Zanabazar Square script	29
10.2.9	Tangut script	30
10.2.9.1	Tangut proposal	30
10.2.9.2	Tangut character names	30
10.3	Additions to Existing Scripts or Blocks	32
10.3.1	Latin letters for transliterating Indic scripts	32
10.3.2	Archaic vowel signs O OO for Kannada	32
10.3.3	Malayalam	32
10.3.3.1	Malayalam Combining Anusvara Above	32
10.3.3.2	Malayalam Sign PARA	32
10.3.3.3	Malayalam Chillu Y	33
10.3.3.4	Malayalam Chillu M	33
10.3.4	Cherokee characters	33
10.3.5	Ruble Sign	34
10.3.6	A Slavonic Punctuation Mark	35
10.3.7	Cedillas and commas below, take 2	35
10.3.8	Latin characters for Marshallese	35
10.3.9	Five Mongolian head marks	36
10.3.10	Four Arabic characters for Bravanese	37
10.3.11	Siddham digits	37
10.3.12	Power symbols	38
10.3.13	“Unifon” and other characters	38
10.4	Miscellaneous Proposals	39
10.4.1	Manichaeian Variation Sequences	39
10.4.2	Osage	39
10.5	Progression of Accepted Proposals	41
11	Liaison reports	41
11.1	Unicode Consortium	41
11.2	SEI	42
12	Other business	42
12.1	Future Meetings	42
13	Closing	43
13.1	Approval of Resolutions of Meeting 62	43
13.2	Adjournment	43
14	Action items	43
14.1	Outstanding action items from meeting 58, Helsinki, Finland, 2011-06-06/10	44
14.2	Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	44
14.3	Outstanding action items from meeting 61, Vilnius, Lithuania, 2013-06-10/14	44
14.4	New action items from meeting 62, San Jose, CA, USA; 2014-02-24/28	44

3 Approval of minutes of meeting 61

Input document:

[4403](#) Unconfirmed Minutes of meeting 61; Uma; 2014-01-28

Delegates are requested to review and provide their comments to the recording secretary.

Dr. Umamaheswaran: In the new action items list from Lithuania meeting - AI-64-4 should be removed - a cut and paste error.

Disposition: The minutes are approved as modified.

4 Review action items from previous meetings

Input document:

[4403](#) Unconfirmed Minutes of meeting 61; Uma; 2014-01-28

[4403-AI](#) Actions Items of meeting 61; Uma; 2014-01-28

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 had been either completed or dropped. Status of outstanding action items from previous meetings 52 and 57 to 61 are listed in the tables below. Of the total of 38 action items that were reviewed, 3 items are carried forward as 'in progress', 4 items were dropped, and 31 items have been either 'noted' or 'completed'.

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.	M52.5 (<i>Principles for Dandas</i>): WG2 adopts the principles guiding the encoding of Dandas in Brahmic scripts from document N3457 , and instructs its ad hoc group on P&P to incorporate these into its document on Principles and Procedures (along with the additions from resolution M52.4 above). WG2 further invites the Irish national body to investigate and report on the current practice on use of currently encoded Dandas in relevant scripts towards finalizing the list of scripts and their corresponding Dandas. (Mr. Michael Everson indicated he will provide some text to include in the P&P document at meeting 58.) M53 to M61 – in progress.	Dropped.

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 to M61 – in progress.	Dropped ... China will submit when ready. Check and add to carried forward Items.

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-58-7	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.	M58.31 (<i>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.	Dropped. China will resubmit when ready. Check and add to

		carried forward items.
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.	Dropped. China will resubmit when ready. Check and add to carried forward items.

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)	
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.	Completed. Included in 4th edition as Annex P.

4.5 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 (Nüshu):</i> WG2 invites China to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nüshu ad hoc report in document N4376 . M61 -- in progress.	Completed. See document N4472 .
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.	Completed. See document N4525 .
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.	Completed. See document N4549 .
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.

4.6 Outstanding 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.)	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.)	Completed.
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:	

<p>a.</p>	<p><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:</p> <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. <p>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.</p>	<p>Completed; document 02n4296.</p>
<p>b.</p>	<p><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 changes are noted:</p> <ol style="list-style-type: none"> 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: <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) 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: <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. g. Reallocate five characters in Sharada block (based on document N4417): <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. h. CJK Extension E (per document N4439): <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> 	
<p>c.</p>	<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: Insert 'Old <i>initial consonants</i>' between lines for 1112 and 1113. Insert 'Old <i>medial vowels</i>' between lines for 1175 and 1176.</p>	

	<p>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.</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: 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: 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.</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> <ol style="list-style-type: none"> 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). 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 	

	<p>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>	
j.	To accommodate the typographical errors in the text of 4th edition reported in document N4421 .	
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.	Items b to k completed; document 02n4288.
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: 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 .	
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: <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 	

	<p>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</p> <ul style="list-style-type: none"> • 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>	
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 4 th 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 Nūshu, Mongolian Square, Soyombo and Marchen are some candidate scripts close to maturity.	Items l, m and n completed; documents N4465 and N4484 (PDAM1)
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).	In progress.
p.	To send the font and CJK Extension E chart to the IRG convener for quick verification by IRG.	Completed.
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.	Completed; see document N4530 .
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 (Nūshu):</i> WG2 invites China, Ireland and SEI to produce a revised proposal, working with other interested parties, taking into consideration the recommendations in the Nūshu 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.	Completed. See document N4472 .
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).	Completed.
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.	Completed.
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.	Noted.
b.	Unicode Liaison Report to WG2 in document N4447 , and Proposed Update Unicode Standard Annex #9 (on Bidi Algorithm) in document N4446 .	Noted.
c.	SEI liaison report in document N4364 .	Noted.
d.	Following items are carried forward from earlier meetings: Scripts, new blocks or large collections (awaiting updated proposals from the authors): Afāka script (N4292); Bagam script (N4293); Balti 'B' (N4016); Balti scripts (N3842);	Noted. Filtered list of items will be in

	<p>Bhaisuki (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).</p> <p>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>	the Carried Forward agenda items for tracking.
e.	<p><i>M61.16 (Future meetings):</i> 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</p>	Noted.

5 JTC1 and ITTF matters

There were no items for this meeting.

6 SC2 matters

Following documents were for information to WG2 experts. They were not discussed.

Input documents:

SC2 program of work:

http://www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=45050&development=on

[4531](#) PDAM1 subdivision of work approval – Proposed modification of SC2 Program of Work; JTC1; 2013-10-24

[4532](#) Results of FDAM2 (of 3rd edition) voting; SC2 N4304; 2013-11-28

6.1 Summary of Voting DIS – 4th edition

Input documents:

[4459](#) Draft additional repertoire for 10646:2014 4th edition; Michel Suignard – Project Editor; 2013-06-23

[4524](#) Summary of Voting and Table of replies – DIS 4th edition; SC2 Secretariat; 2014-01-17

[4524-A](#) NB Comments – DIS 4th edition; SC2 Secretariat; 2014-01-17

There were 14 positive, 2 negative (USA and Ireland), and 19 abstentions.

Comments were received from the UK and Japan along with their positive votes.

6.2 Proposed Disposition of Comments

Input documents:

[4476](#) Request to change the Unicode chart font for Tamil; Shriramana Sharma; 2013-08-09

[4480](#) Request to change two glyphs of existing Tamil symbols; Shriramana Sharma; 2013-09-06

[4486](#) Comments on N4407R Proposal to Encode Variants for Siddham Script; Andrew Glass (Microsoft) (via Deborah Anderson (UC Berkeley)); 2013-10-20

[4490](#) A Practical Approach to Encoding Siddham Variants; Anshuman Pandey; 2013-10-27

[4493](#) Request to add one Cuneiform character; Michael Everson; 2013-10-28

[4521](#) Draft Disposition of Comments – 4th edition; Michel Suignard; 2014-02-10

[4563](#) Annex S Source Separation example; TCA; 2014-02-25

Output documents:

[4564](#) Approved Disposition of Comments DIS 4th edition; Michel Suignard ; 2014-02-26

[4571](#) 4th edition delta FDIS charts; Michel Suignard; 2014-02-27

Comments were received from Ireland, Japan, the UK, and the USA. The following document is the proposed disposition of those comments. The disposition is organized per country.

6.2.1 Ireland: Negative

Comment E.1: Ireland requests adding informative notes to six Old Hungarian characters at 10CA7, 10CAC, 10CAD, 10CE7, 10CEC and 10CED, to recognize that modern orthographic use of a few of the Old Hungarian letters differs somewhat from that of the primary-source manuscripts.

Mr. Michel Suignard: Ireland has cast a negative vote on editorial comments! The Old Hungarian has gone through several rounds. Name change has flip flopped several times. The name will be Old Hungarian. There has been no comment from the national body of Hungary.

E1 is requesting some Annotations. I propose acceptance.

Disposition: Accepted.

Comment E2: Ireland requests changing the glyphs for 10C8B and 10CCB be slightly smaller and for 10C93 and 10CD3 be slightly larger than in current charts, to harmonize with preferences of modern users.

Disposition: Accepted. New font has been sent to the editor.

As a result of the above dispositions Ireland changed its vote to Acceptance.

6.2.2 Japan: Positive with comments

Comment E1: Japan proposes changing "Clause" to "clause" (in clause 2.2 and many others) citing ISO Directives part 2 for casing rules.

Mr. Michel Suignard: The directives document itself uses uppercase in it. We will use uppercase.

Disposition: Not accepted.

Comment T2: Japan proposes changing format used for UCS code point in CJKsrc.txt file to "hhhh" or "hhhhh" from "U+hhhh" or "U+hhhhh", to be consistent with use of the formats elsewhere in the standard.

Mr. Michel Suignard: This comment is with respect to the new CJKsrc.txt file. Part of the move was to align with Unihan. To keep the synchronization with Unihan, U+xxxx is one of the recognized formats, and it will be easier to have one data set that is used between ISO/IEC 10646 and Unihan in Unicode.

Mr. Toshiya Suzuki: Is there any possibility that Unihan may change the format from current?

Mr. Michel Suignard: No. The format is already in place for several years. In a way it is sort of waste of space.

Disposition: Not accepted.

Comment T2: Japan proposes that the glyph corrections for 2C0D1 and 2C7D3 as reported in IRGN1977 be incorporated.

Mr. Michel Suignard: 2C0D1 and 2C7D3 had production issues for the glyphs. These will be fixed.

Dr. Ken Lunde: 2C0D1 had an additional source that was removed. 2C7D3 had the wrong glyph.

Disposition: Accepted.

Comment E4: Japan proposes correcting title of A.6.12 to "313" From "312 ..." in Annex A.

Disposition: Accepted. This was a typographical error.

Comment E5: Japan proposes to be consistent with use of dash in "sub-clause" versus "subclause".

Mr. Michel Suignard: Use with dash is much more prevalent; 'subclause' without a dash is unique to ISO.

To be consistent we will use 'sub-clause' with a dash everywhere.

Disposition: Accepted.

Comment T6: Japan requests that the glyph shown for 5B14 next to 5B0E, for a source separation caused by T source, in clause S.3 is missing a dot and should be reverted to its version as in 2003 edition.

Mr. Michel Suignard: This comment is the same as was given for the CD ballot by Japan. Previous ballot comment on the CD was about several Annex S sections. The previous fix proposed showed something that was still used in Taiwan. But Taiwan changed the glyph from ISO/IEC 10646 older version to what it is now. Source separation rule made the separation, even though they should not have. Even though the glyphs are different from 2003, the information in Annex S is still valid and I would like to keep the glyphs as they are in the charts. Taiwan has changed. These are messy from Taiwan point of view.

Discussion:

- a. Dr. Lu Qin: They are otherwise unifiable. Since Taiwan changed the font, they are unified. We have to keep it separate because of separation rule. The issue is not the glyphs in the IRG. We do understand the rationale.
- b. Mr. Satoshi Yamamoto: I would like to propose some text to add to this case, to deal with the glyph change between editions.
- c. Dr. Ken Whistler: Why can't we keep the G source glyphs as example to show they are unifiable but not unified? It will take us away from the T source confusion.
- d. Mr. Michel Suignard: This will be added to new Annex S if it is not controversial. We can adopt it at this meeting. In Annex S we could use the G source and in Annex P we still can add some explanatory text.

<<break for ad hoc>>

- e. Mr. Michel Suignard: Myself, TCA experts, Japanese experts and Dr. Lu Qin, had some discussion. On the CNS side, one character moved - my understanding is that it is an error in the CNS. Talking to Dr. Lu Qin, we should keep glyphs the same as in 2003 edition. There is no change in mapping. Hong Kong character will be like 5B0E. It does not affect Hong Kong. Document N4563 is additional input from TCA. I will grab the character from the G source for now. At some point I would like to see all the changes that have been made for the charts reflected in a clean font.
- f. Ms. Lin-Mei (Selena) Wei: I Will send the font to Mr. Michel Suignard by next week.

Disposition: Accept in principle. The glyph for 5B0E will have the dot as it is in 2003 edition - similar to what is shown in document N4563, when the font is made available.

6.2.3 United Kingdom: Positive with comments

Comment E1: UK proposes to reword note 2 under 4.12 to indicate that not all previous editions used 'implementation levels'.

Disposition: Accepted in principle. The note will be reworded to "Since its second edition of ISO/IEC 10646:2011, this International Standard does not use implementation levels."

Comment E2: UK proposes updating the referenced version of IVD from 2010 version to 2012 version in Note 2 under clause 16.6.3, to read "This International Standard incorporates by reference the variation sequences listed in version 2012-03-02 of the Ideographic Variation Database, as described at <http://www.unicode.org/ivd/data/2012-03-02>".

Disposition: Accepted.

Comment E3: UK proposes removing the extra hyphen following "Note 4" under clause 21.

Disposition: Accepted.

Comment E4: UK proposes correcting "An entity names ..." to "An entity name ..." in clause 24.2.

Disposition: Accepted.

Comment E5: UK proposes correcting the glyph for 2053 SWUNG DASH, for indicating use of a character as a base character in a standardized variation sequence -- from what appears to be a 'tilde' to 'swing dash'.

Disposition: Accepted. Note that in many fonts, the swung dash is very similar in appearance both in size and vertical alignment to the tilde. However a true swung dash (slightly wider) will be used in the future.

Comment E6: UK proposes rewording the sentence "The content linked to is a plain text file, using ISO/IEC 646-IRV characters with LINE FEED as end of line mark.", which appears in several sections with linked files. All the referenced files have CR/LF as end of line and one of the files has a BOM.

Disposition: Accepted in principle. It is easier to change these to say CARRIAGE RETURN/LINE FEED as the line termination, because this is the way they are produced. The BOM will be removed from the NUSI.txt file.

6.2.4 USA: Negative

Comment TE1: The US requests that a note be added to the text of A.5.9 to indicate that collection 288, originating from ISO/IEC 9995-3, does not cover all languages using Latin-based orthographies.

Disposition: Accepted in principle. The note would say:

NOTE – The collection 288 MULTILINGUAL LATIN SUBSET does not provide an exhaustive coverage of all languages using Latin-based orthographies. It is referenced by ISO/IEC 9995-3:2010 Keyboard layouts for text and office systems -- Part 3: Complementary layouts of the alphanumeric zone of the alphanumeric section.

Comment TE2: The US requests the addition of one character to the Cuneiform block, U+12399 CUNEIFORM SIGN U U, as documented in document [N4493](#). This character was left out in error, according to a co-author of the original cuneiform proposals.

Mr. Michel Suignard: Cuneiform is already in Amendment 2 to 3rd edition that is not yet published. It seems sensible to add the requested character. The character was already in the font.

Mr. Michael Everson: It was missed and the user community has found it is used.

Mr. Mike Ksar: Amendment 2 for 3rd edition will not be published by ITTF, since 4th edition is coming along.

Disposition: Accepted

See relevant resolution M62.01 item a, on page 16.

Comment TE3: The US requests changing the end of the Latin Extended-E block from ABBF to U+AB6F, freeing up 5 columns for potential allocation for other characters such as Cherokee Supplement.

Mr. Michel Suignard: The block Latin Extended-E is relatively recent (added per Amendment 1 in 2013) and only populated up to U+AB63. Furthermore, blocks are not immutable. However there is a collection 165 LATIN EXTENDED E AB30-ABBF, but it is not fixed, so in principle it is still possible to reduce its size. However, should it be done, it has to be done as soon as possible.

Discussion:

- a. Mr. Michael Everson: Ireland thinks we can go ahead with this now.
- b. Mr. Michel Suignard: Do we want to wait till Cherokee discussion. Even if Cherokee does not come in we need to change the collection 165 to change to AB30-ABBF. Also block description changes.

Disposition: Accepted.

See relevant resolution M62.01 item b, on page 16.

Comment TE4: The US requests that the 6 Siddham letter variants 115E0...115E5 be removed, with comments indicating they are not mature for encoding in documents [N4486](#) and [N4490](#).

(See document [N4560](#) Siddham ad hoc report, and discussion under section 9.1.1 on page 21.)

Disposition: Partially accepted.

See relevant resolutions M62.01 item e, on page 16, and M62.02 item b on page 35.

Comment TE5: The US requests that a formal name alias 'UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS OF DOWNWARDS TRIANGLE-HEADED ARROW' be added for 2B81 UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS DOWNWARDS OF TRIANGLE-HEADED ARROW to will correct an error in the names list.

Mr. Michel Suignard: This is another name goof up in the standard. The word '-OF-' was in the wrong place in the name.

Discussion:

- a. Dr. Ken Whistler: Such errors cannot be detected by a spelling check. The word OF ended up in the wrong place.
- b. Mr. Michel Suignard: The Unicode has not picked up this character in it yet to negatively affect the stability policy. We have not published this yet. We should fix this error.

- c. Dr. Ken Whistler: I think this should be fixed. It has not been published in a context where the stability policy will kick in.

Disposition: Accept in principle. Correct the name for 2B81.
See relevant resolution M62.01 item c, on page 16.

Comment E1: The US requests that Lohit Tamil fonts be used for Tamil blocks as requested in document N4476, as a more aesthetically pleasing replacement.

Disposition: Accepted. The request is really for the charts in Amendment 1 to the 4th edition. We can use the font used in Amendment 1 to the fourth edition for publishing the fourth edition. Once a font is provided - even though it was in Amendment 1, it gets inherited by fourth edition charts also until its final publication. Document N4480 is also accommodated by using the new font.

Comment E2: The US requests changing the italicized comment above AB60 in Latin Extended-E names list, from "... 1917-1927 ..." to "...1917 to 1927 ...".

Comment E3: The US requests correction of spelling of "preferred" in the italicized comment above 2BEC in Miscellaneous Symbols and Arrows names list.

Disposition: Accepted.

Comment E4: The US requests correcting the direction of the first single quote in the annotation "used for writing 'matra-vowels'" for 111CC, in Sharada block.

Disposition: Accepted.

Comment E5: The US requests removal of extraneous period at the end of the annotation for 1D1DE in Musical symbols block.

Disposition: Accepted.

Comment E6: The US requests rewording the italicized comment at the top of the names list for Siddham from "... by the names and 'Kutila' ..." to "... by the name 'Siddhamatrika' ...", explaining that the word 'Kutila' is too generic a term that occurs elsewhere also to mean curled or bent etc.

Disposition: Accepted.

Comment E7: The US requests that the font for the Ahom block be reviewed to correct clipping and winding errors.

Mr. Michel Suignard: There are some production fonts that are given to me ... When I modify any of these I have to end up owning these, even if I give back the modified ones.

Disposition: Accepted in principle. Use a more satisfactory font fixing the errors.

Comment E8: The US requests that the glyphs in the Early Dynastic Cuneiform be fixed so they do not extend outside the box area for the glyphs (for example 12484, 12486, 124AB, 12535, etc.).

Mr. Michel Suignard: I will fix where possible. Only a certain amount of modifications can be done.

Disposition: Accepted in principle. Use a more satisfactory font fixing the errors.

As a result of the above dispositions, the US changed its ballot to Acceptance.

The final disposition of comments will be in document N4558.

Relevant resolution:

M62.01 (Disposition of ballot comments and progression of 4th edition):

WG2 accepts the disposition of ballot comments on DIS 4th edition in document N4564. The following significant changes are noted:

- Addition of 12399 CUNEIFORM SIGN U U, with its glyph from document N4493, to the 'Cuneiform' block.
- Shortening the block 'LATIN EXTENDED-E' to end at AB6F (from current ABBF), and adjusting the block description and definition of collection 165 LATIN EXTENDED-E accordingly.
- Changing the name for 2B81 in the 'Miscellaneous Symbols and Arrows' block to:
'UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS OF DOWNWARDS TRIANGLE-HEADED ARROW',

from:

'UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS DOWNWARDS OF TRIANGLE-HEADED ARROW'.

- d. Change the source reference for CJK Extension C ideograph 2A92F from GZJW-00827 to GCY-0665.03 along with change in the glyph, based on document [N4558](#).
- e. Siddham changes:
 - Moving four SIDDHAM characters from 115E0-115E3 to 115D8-115DB with the following new names:
(old 115E0) 115D8 SIDDHAM LETTER THREE-CIRCLE ALTERNATE I
(old 115E1) 115D9 SIDDHAM LETTER TWO-CIRCLE ALTERNATE I
(old 115E2) 115DA SIDDHAM LETTER TWO-CIRCLE ALTERNATE II
(old 115E3) 115DB SIDDHAM LETTER ALTERNATE U
 - Moving two 'Siddham' letter variants at 115E4 and 115E5 from the 4th edition into Amendment 1 for final technical review, with the following new names and code positions:
(old 115E4) 115DC SIDDHAM VOWEL SIGN ALTERNATE U
(old 115E5) 115DD SIDDHAM VOWEL SIGN ALTERNATE UU

6.3 Summary of Voting on 10646-PDAM 1 to 4th edition

Input documents:

[4473](#) Proposal to encode Gujarati Letter ZHA; Vinodh Rajan; 2013-08-01

[4474](#) Proposal to encode three Arabic characters for Arwi; Roozbeh Pournader; 2013-08-19

[4475](#) Proposal to encode Cyrillic half marks; Aleksandr Andreev, Yuri Shardt & Nikita Simmons; 2013-08-14

[4481](#) Future Additions to ISO/IEC 10646; USNB; 2013-08-01

[4519](#) Summary of Voting and Table of Replies; SC2 Secretariat; 2014-01-06

[4519-A](#) Results of Voting PDAM1 4th Edition; SC2 Secretariat; 2014-01-06

[4519-B](#) NB Comments; SC2 Secretariat; 2014-01-06

Per document [N4519-A](#), 21 member bodies had responded. 9 had approved as written, 1 (USA) had approved with comments, 2 (Japan and UK) had disapproved and 9 had abstained.

Note that PDAM1 was issued post meeting 61, and included some characters that were close to maturity at that time. The items that were deemed to be mature by the project editor were included in Amendment 1. It included input from documents [N4473](#), [N4474](#), [N4475](#) and [N4481](#) listed above.

Relevant resolution:

M62.04 (Amendment 1 additions since meeting 61): WG2 notes that in addition to the total of **73** characters listed under resolutions M61.11 and M61.12 (in document [N4404](#)) the following additions were included in the PDAM1 ballot document [N4484](#):

a. The following **six** characters:

08B3	ARABIC LETTER AIN WITH THREE DOTS BELOW
08B4	ARABIC LETTER KAF WITH DOT BELOW
08E3	ARABIC TURNED DAMMA BELOW
0AF9	GUJARATI LETTER ZHA
FE2E	COMBINING CYRILLIC TITLO LEFT HALF
FE2F	COMBINING CYRILLIC TITLO RIGHT HALF

b. A new block named 'Nūshu' in the range 1B100-1B2FF, populated with **397** characters in code positions 1B100-1B28C.

6.4 Proposed Disposition of Comments PDAM1 (N4520)

Input documents:

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

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

[4461](#) Nūshu ad hoc report; Nūshu ad hoc committee – Tero Aalto; 2013-06-12

[4479](#) Request to reallocate one character within the Grantha block; Shriramana Sharma; 2013-09-04

[4484](#) Proposed Draft Amendment (PDAM) 1; Michel; 2013-09-27

[4484-A.txt](#) PDAM 1 Names; Michel; 2013-09-27

[4513](#) Comments on Nūshu script in N4484/PDAM1; Suzuki Toshiya; 2013-12-25

[4520](#) Draft Disposition of Comments – PDAM1 4th edition; Michel Suignard; 2014-02-11

[4533](#) Additional comments on N4483/PDAM1 - Nūshu; Suzuki Toshiya and Orié Endo; 2014-01-30

Output documents:

[4565](#) Approved Disposition of Comments Amendment 1; Michel Suignard; 2014-02-26

[4568](#) DAM1 Content; Michel Suignard; 2014-02-27

Comments were received from Japan, UK, and USA.

6.4.1 Japan: Negative

Comment T1: Japan requests WG2 to consider the Nūshu block based on the comments in document [N4513](#), suggesting that Nūshu block may be incomplete.

Mr. Michel Suignard: See also comment T1 from UK. I would like the ad hoc to consider the various points I have outlined (in document [N4520](#)). Based on Japanese comments the script as it is cannot be kept in the ballot. It was initiated into PDAM1 based on the last meeting's ad hoc report and the text that came out of it. I think the concerns on Nūshu would need another round of committee ballot - we may need to initiate a PDAM1-2nd round instead of DAM ballot. The concerns raised by Japan have to be addressed if the script is to be kept in the ballot.

See Nūshu ad hoc report and discussion in section 9.2.1 on page 24.

Disposition: Moved Nūshu out of Amd. 1 to next Amendment.

See relevant resolution M62.05 item b on page 19.

As a result of the above disposition Japan's vote changed to Acceptance.

6.4.2 United Kingdom: Negative

Comment T1: UK requests changing the block allocation for Nūshu to end at 1B28F instead of 1B2FF, with rationale for the request.

Mr. Michel Suignard: The UK comments could be accommodated.

See Nūshu ad hoc report and discussion in section 9.2.1 on page 24.

Disposition: Accepted. Block may be resized in the future if needed. The entire Nūshu is moved to the next Amendment out of Amd. 1.

See relevant resolution M62.05 item b on page 19.

As a result of the above disposition UK's vote is expected to change to Acceptance.

6.4.3 USA: Positive with comments

Comment TE1: The US requests moving GRANTHA SIGN COMBINING ANUSVARA ABOVE from 1137D to 11300. Moving the ANUSVARA to the beginning of the block would keep it in line with the location of the anusvara in other Indic script blocks - see document [N4479](#).

The request in document [N4479](#) is to move 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE to 11300. The US national body has reviewed this and agrees with it.

Disposition: Accepted.

See relevant resolution M62.05 item a on page 19.

Comment E1: The US requests changing the spelling in the header above 1032F to "Raetic" referencing document [N4395](#) for the rationale.

Disposition: Accepted.

Comment E2: The US requests correcting the glyph for 08E3 TURNED DAMMA BELOW to a glyph based on 064F ARABIC DAMMA, pointing out that it is too small compared to 064F.

Disposition: Accepted in principle. Need a new font.

Comment E3: The US requests correcting the glyph for 0D4F MALAYALAM LETTER CHILLU LLL removing the winding error in the glyph.

Disposition: Accepted in principle. There are hundreds, maybe thousands of glyphs with winding errors in the charts. The editor is relying on volunteers for these fonts. There is also a proposal to move this character along with additional Chillus.

(See discussion and disposition under 10.3.3.3 on page 33.)

Comment E4: The US requests that the Nūshu font be carefully reviewed, the winding errors corrected, and stroke thickness be made more consistent.

Mr. Michel Suignard: See also comment T1 from Japan and T1 from UK.

Other concerns need to be addressed first before we can start improving the font.

See Nūshu ad hoc report and discussion in section 9.2.1 on page 24.

Disposition: Accepted in principle. Fix the font. The entire Nūshu is moved out of Amd. 1 to the next Amendment.

See relevant resolution M62.05 item b on page 19.

Comment E5: The US requests replacing the current glyph for A8FD DEVANAGARI JAIN OM to one closer to that in document N4408.

Disposition: Accepted in principle. Await corrected font from the author of the proposal.

Mr. Michel Suignard: There are several new proposals in the agenda. These would be candidates for inclusion in PDAM1-2nd ballot. The disposition will include the recommendation for Nūshu from the ad hoc.

The final disposition of PDAM1 ballot comments will be in document N4565.

Relevant resolution:

M62.05 (Disposition of ballot comments of PDAM1 to 4th edition):

WG2 accepts the disposition of PDAM1 ballot comments in document N4565. The following significant changes are noted:

- a. Moving of 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE to 11300 in the 'Grantha' block.
- b. Deletion of 'Nūshu' script from Amendment 1, moving it to a future Amendment, with the following modifications recommended in the Nūshu ad hoc report in document N4561:
 - Changing to a 'rule based' naming system, such as NUSHU CHARACTER-<codepoint>
 - Presenting the charts with an improved font, and,
 - Reducing the block range from 1B100-1B2FF to 1B100-1B28F.

7 WG2 matters

7.1 Principles and Procedures

Input document:

[4502](#) Updated Principles and Procedures; Uma; 2014-01-29

Dr. Umamaheswaran explained the changes in the document.

Disposition: Accepted with update to Annex L and send for circulation to SC2 secretariat.

Dr. Umamaheswaran will edit additional paragraph in Annex L, regarding English character names, and send it to Mr. Mike Ksar.

Relevant resolution:

M62.17 (Principles and Procedures):

WG2 instructs its convener to post the updated Principles and Procedures (in document N4502) to the WG2 web site and communicate the same to SC2 secretariat.

7.2 Roadmap Snapshot

Input document:

[4530](#) Roadmap snapshot; Uma; 2014-02-19

Dr. Umamaheswaran outlined the changes from previous version. An edit error was pointed out - to fix Znabazaar to Zanabazaar in History section.

Disposition: Accepted. Send to SC2 for distribution to member bodies.

Relevant resolution:

M62.18 (Roadmap snapshot): WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N4530) to the WG2 web site and communicate the same to SC2 secretariat.

8 IRG status and reports

8.1 IRG Meetings 41 Summary Report

Input documents:

[4509](#) IRG Summary; Lu Qin; 2013-11-28

[4510](#) IRG Resolutions; Lu Qin; 2013-11-22

[4511](#) IRG PnP Version 6; Lu Qin; 2013-11-22

Dr. Lu Qin presented the summary report from IRG meeting 41.

Item 1: Meetings IRG 42 and 43 have been approved.

Item 2: Extension E

Dr. Lu Qin: Mr. Michel Suignard, our project editor, had created new Extension E charts reflecting the errors reported by IRG. Feedback from IRG members have been sent to Mr. Michel Suignard.
Mr. Michel Suignard: I refactored the fonts.

Item 3: Extension F work

Dr. Lu Qin: The first cycle of full review has been completed. Full review is in process. The results would be ready in time for the next WG2 Colombo meeting.

Discussion:

- a. Mr. Mike Ksar: How big is Extension F?
- b. Ms. Lin-Mei (Selena) Wei: About 4000+ characters.
- c. Dr. Ken Lunde: One question that came up at UTC was about F1 and F2 within IRG.
- d. Dr. Lu Qin: What is internally F1 is F for WG2 report. We did split the collection into two.
- e. Mr. Michel Suignard: They will be different compared to other collections, in terms of where the split was done.

Item 4: IRG P&P

Dr. Lu Qin: The updated P&P document has been confirmed and posted to IRG site. It has been forwarded to WG2 for feedback as document [N4511](#). There is a section on Urgently Needed Characters (UNCs) that was updated. Some submissions are being made following the updated procedure.
Action item: WG2 experts and member bodies are requested to review and feedback on document [N4511](#).

Item 5: Large files on IRG website

Dr. Lu Qin: This item is an action item on myself. Large files are a security concern for the IRG site. Maximum size is 4M. I am the only one to upload files, and can grant permission for others to upload the files. I need to find suitable alternative. Suggestions are welcome.

Mr. Mike Ksar: It is a good idea to control with one person. We had some bad experience on the WG2 site in the past with multiple upload authority.

Item 6: Urgently Needed Characters (UNCs)

6.1 - China had 3 UNCs - they are in a national standard. They have submitted to IRG for consideration. IRG has agreed that these are required. It is on the agenda - document [N4508](#).

6.2 - UTC requested some UNCs. IRG raised some questions on these. Some of these characters came from the web sources. IRG members need more time to review and study these.

6.3 - Slavonic transcriptions - the requested characters look legitimate. But their use is different from the current CJK characters. Some of these are already in CJK - ideographic than being just phonetic. IRG members have been asked to review. One of the concerns is how to sequence these phonetically - since they are used in transcriptions. Some being already encoded in CJK, it would be better to order them with Radicals - not useful from transcription point of view. Submitters have been given the feedback.

Item 7: Notes accompanying reviews from IRG reviewers

Dr. Lu Qin: Some of the editorial notes received from IRG reviewers were not too detailed. The editors were asked to provide more detail, and this guideline has been put into practice with extension F.

Item 8: Unification and dis-unification examples

Dr. Lu Qin: These examples have been posted to IRG site. There are some technical problems in terms of sorting and finding the characters.

Mr. Mike Ksar: Only item for WG2 to consider is document [N4508](#) under item 6.1 above. The meetings under item 1 have already been approved. Well done.

8.2 Urgently needed characters from China

Input document:

[4508](#) Urgently Needed Characters from China; Lu Qin; 2013-11-25

Mr. Chen Zhuang: A new list was issued by China government; consisting of 8000+ characters to contain place names, scientific terms and for pedagogical purposes. There were 3 characters from that list that are not in ISO/IEC 10646. This Hanzi list must be followed by all the government departments. We are requesting these three missing characters to be added. There are three levels - level 3 is for scientific place names. Each requested character is identified as to the level of use and they are also found in dictionaries. Evidence of use is also provided.

Discussion:

- a. Dr. Lu Qin: Two of these characters are in extension F. One is not. WG2 can consider these - extension F that is to be submitted. We could consider keeping the third also in Extension F. If China wants more urgently, then WG 2 has to decide.
- b. Mr. Michel Suignard: Extension F will be ready by next WG2 meeting in Colombo. It is a bit less work for us if we keep these in Extension F.
- c. Dr. Lu Qin: The plan is to have it ready in May. Enough time prior to September.
- d. Mr. Chen Zhuang: Extension F would be soon enough for us.
- e. Mr. Mike Ksar: We can add the third character to Extension F.
- f. Mr. Michel Suignard: I may decide to insert the characters depending on the radical stroke. People expect the blocks to be reasonably ordered within each set.
- g. Dr. Ken Lunde: The missing character will fit into F1 - radical considerations should be less of a concern.
- h. Mr. Michel Suignard: You will provide me a pseudo-index. Taiwan made a mistake the last time; hopefully they will be correct this time.
- i. Dr. Ken Lunde: Note that one of the characters 1171 requested from UTC is the same as the character being added to extension F.

Disposition: Accept adding the third character to extension F. Await extension F for processing all three.

Relevant resolution:

M62.15 (Urgently needed ideographs):

WG2 instructs the IRG to add the missing urgently needed character, identified as serial number 6774, requested by China in document [N4508](#) to the repertoire of CJK Extension F.

8.3 Request of Changing One CJK_C Source and Glyph (N4558)

Input document:

[4558](#) Request of Changing One CJK_C Source and Glyph; China NB; 2014-02-25

Mr. Chen Zhuang: This request was agreed upon in IRG. The source glyph is currently in the standard - should be changed. The second glyph in our proposal is what we suggest to replace the first one. The difference is that the second one is the modern form. The two are unifiable; they have the same number of strokes.

Disposition: Accept the new source requested by china for 2A92F. Include it in FDIS 4th edition. Change source reference from GZJW_00827 to G_CY0665.

Mr. Michel Suignard: <<While the relevant draft resolution was being reviewed>> The new source reference G_CY0665 is not correct. 0665 is a page number. We need the index in that page for the source reference to be correct.

Mr. Chen Zhuang: An updated [N4558](#) has been sent to the convener. The reference should be to the third character on page 0665.

Mr. Michel Suignard: We will assume GCY-0665.03 (to be double checked).

See relevant resolution M62.01 item d, on page 16.

9 Script contributions related to ballots:

9.1 Related to 10646 4th edition

9.1.1 Siddham script

Input documents:

[4468](#) Additional Siddham Variants; Anshuman Pandey; 2013-06-15

[4490](#) A Practical Approach to Encoding Siddham Variants; Anshuman Pandey; 2013-10-27

[4523](#) 2013-11-22 Siddham Script (梵字) Meeting @ Tokyo; Ken Lunde et al; 2013-11-22

[4467](#) Proposal to encode a set of Siddham digits; Anshuman Pandey; 2013-06-15

[4457](#) Name changes for Siddham Section marks; Deborah Anderson and Anshuman Pandey, SEI, UC Berkeley and Michael Everson; 2013-06-11

[4557](#) Brief summary Siddham; Suzuki Toshiya; 2014-02-24

Output document:

[4560](#) Siddham ad hoc report; Debbie Anderson (ad hoc chair); 2014-02-25

An ad hoc group led by Dr. Deborah Anderson met to consider all the proposals and comments on Siddham script.

Dr. Deborah Anderson: Mr. Toshiya Suzuki led the discussion focusing primarily on document [N4557](#). The ad hoc group's recommendations are summarized in document [N4560](#).

In brief:

- Accept to encode the vowel signs alternate U and UU.
- Siddham vowel sign characters should include annotations identifying whether the form is a “cloud” form (115B2 and 115B3) or “warbler” form (115DC or 115DD).
- Collation weights for the two SIDDHAM VOWEL SIGN ALTERNATEs will be distinguished at the tertiary level from SIDDHAM VOWEL SIGN U and SIDDHAM VOWEL SIGN UU.
- Move 115E0...115E5 to 115D8...115DD with modified names, leaving space in the 115E0...115EF column.

Discussion:

- a. Mr. Peter Constable: The wording under item 4 on collation - 'distinguish will be ' should change to 'distinguish .. should be... ' - at the tertiary level. Any concerns from the Sort experts?
- b. Dr. Ken Whistler: The suggested wording is fine with me.
- c. Mr. Mike Ksar: Any other comments from other participants?
- d. Mr. Michael Everson: In the names - three circles and two circles should be hyphenated.
- e. Mr. Michel Suignard: Where should the revised one go? Some ballot comments were received on PDAM from the US. The US has asked for removing all six. Four were already in the ballot. We could move all the six to Amendment 1, or we could split into 4 and 2. Has Japan any opinion? What is the urgency for these?
- f. Mr. Toshiya Suzuki: Japan suggests to include all the agreed upon 6 into Amendment 1. The gap in the approval between previous and next version should be minimized. Excuse me - I meant to say Japan would like to see them all in the fourth edition.
- g. Dr. Ken Whistler: The US position would be to have these in Amendment 1 - it gives the US national body another chance to look at the results of the ad hoc. If it is OK with Japan that would be fine with us. There was no strong objection to the four characters with changed names into the 4th edition. We would like to see the other two also. Japan's concern is that the 4th edition would be published before the Amendment. 1. If we progress the other two characters in Amendment 1 - from the Unicode version point of view - summer 2015 is the next target - the entire Siddham script will be picked up at that time. The only controversial ones are the two combining characters. US would like to have one more round of review on these. There is no problem with the four in the 4th edition.
- h. Mr. Mike Ksar: Can we include the two also in the 4th edition?
- i. Mr. Michel Suignard: No. The FDIS ballot cannot have technical comments. My preference is to put the two in Amendment 1 providing another round of technical review. We are in good shape - since all the interested parties on Siddham are in agreement at this meeting. Can Japan live with having the four in 4th edition and the other two in Amendment 1?
- j. Mr. Toshiya Suzuki: Does Unicode 7.1 include the four?
- k. Mr. Peter Constable: Unicode 7.1 -- due to its timing - it would be possible to include all 6.
- l. Mr. Toshiya Suzuki: We would like to know when the four non combining and two combining will be included in Unicode.
- m. Mr. Michel Suignard: I was suggesting PDAM 1.2 based on the assumption that there is no urgency for any of the characters in it for a faster progression. We could progress it to FDAM 1 at our next meeting in Colombo. That would freeze the code points for the urgently needed characters. We may still issue DAM1 at this meeting -- and add some characters that may be needed urgently. Would creation of DAM 1 make it easier for Japan from the timing point of view?
- n. Mr. Mike Ksar: You will have one round of technical ballot.
- o. Mr. Peter Constable: The DAM ballot prior to next February - and once it is approved the name and code position would be fixed. The UTC will work on the properties.

- p. Mr. Kyonori Nagasaki: What is your concern about the two combining characters that you need more discussion?
- q. Dr. Ken Whistler: The US technical experts had requested removal of the four. There are other technical experts who are not here who should be given a chance to review the two combining marks and agree on it. I do not want to change the US national body's position.
- r. Mr. Kyonori Nagasaki: Can the experts be brought to this meeting for any technical discussion?
- s. Dr. Ken Whistler: It is not practical to bring the experts to this meeting; it is more practical to have another round of review. We could change the US ballot position to include these in the 4th edition, however, it will be a courtesy to the other US experts to get a chance to review.
- t. Mr. Michael Everson: it is fair to include the four in the FDIS. The other two should be in Amendment 1 giving another round of review.
- u. Dr. Ken Whistler: The change is an interesting difference in the model for the script as it is used in Japan - though it is a Brahmi-derived script. As used in Japan, the different pieces are put together different from Devanagari. The two combining marks are changes with respect to Devanagari. Due to the complexity - we need to explain the difference to the Unicode and other US national body technical experts and get their agreement.
- v. Mr. Mike Ksar: We will go with current four with new names and new code positions in the FDIS. The other two will go into DAM1.

Disposition: Accept the recommendation from the ad hoc, as modified by discussion above. <<Note: An updated version of the ad hoc report has been posted to the WG2 website.>>

See relevant resolutions M62.01 item e, on page 16, and M62.02 item b on page 35.

9.1.2 Declaration for removing the "Old Hungarian" block (N4492)

Input document:

[4492](#) Declaration for removing the "Old Hungarian" block from DAM; Jenő Demeczky, Lajos Ivanyos, Gábor Hosszú, Tamás Rumi, László Sípos, Tamás Somfai, and Erzsébet Zelliger; 2013-10-26

9.1.3 Representation of CJK ideographs updated in JIS-2004

Input document:

[4544](#) Representation of CJK ideograph glyphs; Michel Suignard; 2014-02-20

Mr. Michel Suignard: The CJK ideographs -- we have been practicing using the latest available forms for the CJK ideographs in various blocks for different sources. There is a NOTE in the standard concerning the ideographs in clause 23.1. There are some 168 ideographs that were from a 1990 JIS standard. In their revisions, they are changed quite a bit. This note - the principle of preserving the old form unchanged - prevents the standard from being a reference for showing a representative current glyph. My proposal is to allow the standard to use the later glyphs at the same time preserving the historical information. One of the means of preserving the historic information would be to create collections. It will allow us to maintain the source information using more current glyphs.

Discussion:

- a. Dr. Umamaheswaran: Where will the old glyph information available from?
- b. Mr. Michel Suignard: The reference will be to point to back editions of ISO/IEC 10646.
- c. Dr. Umamaheswaran: One cannot depend on the availability of the previous editions from ISO.
- d. Dr. Ken Whistler: We could point to the Unicode charts archives for implementers to reference.
- e. Dr. Ken Lunde: JIS X0213 does not incorporate all of JIS 2008. 167 characters have changed; one is from JISX0213. X0213-2000 plus JIS reference?
- f. Mr. Michel Suignard: It is good idea for referencing the archived code charts.
- g. Mr. Peter Constable: You may be reproducing all of the URO charts.
- h. Mr. Michel Suignard: I would prefer to include this change in DIS. It would be a question of how soon we could get a font from Japan.
- i. Mr. Toshiya Suzuki: Japan would like to discuss this in Japan national body. It is not unique only for Japan. IRG will need to discuss this also.
- j. Mr. Michel Suignard: I understand concerns expressed by Japan. Even if I make such changes it has to go into DAM 1 -- but I at least need to get the font from Japan for the 168 characters.
- k. Dr. Lu Qin: Japan should discuss this in their national body. Other IRG members should be made aware since they also keep changing the fonts etc.

- l. Mr. Peter Constable: Other IRG members should also be made aware of the concern about the fonts.
 - m. Mr. Toshiya Suzuki: It is too early to go forward with this. It would take some time to get the font, double check it etc.
 - n. Mr. Michel Suignard: I understand that there is a production issue. I would like to see us making this change in the standard at the earliest opportunity. We could show it in the next Amendment, but I would like to have the freedom to include it in Amendment 1 at the next meeting.
 - o. Dr. Ken Whistler: There are three things ... one is removal of note, second is the normative clause text and third is the updating of the glyphs and the collection etc.
 - p. Mr. Michel Suignard: We could split the proposal to have the textual portion through and wait for the fonts for the glyph updates.
 - q. Dr. Ken Whistler: Removing the note 2 by itself is not a technical change. Adding a new clause will be a technical change. The suggested steps are:
 - In the text of DAM1 -- suggest removing of the NOTE 2, giving reasons as an editorial improvement.
 - For Amendment 2 - suggest some text for addressing the effect of removing the note etc.
 - Separately let Japanese national body provide feedback and font to you for inclusion in Amendment 2 at our next meeting - an updated document has to be created.
 - r. Mr. Michel Suignard: It is easier to propose things and go forward at the PDAM level.
 - s. Mr. Peter Constable: What do you think we should have for synchronizing with Unicode in 2015?
 - t. Mr. Michel Suignard: We can include the proposed changes in Amendment 2 ballot, and at our next meeting, if there is no disagreement we can fast track it into FDAM1. I have to wait for fonts from Japan.
 - u. Mr. Toshiya Suzuki: IRG is quite busy doing CJK extensions. If a national body submits an updated font the IRG editors end up in reviewing all the charts.
 - v. Mr. Michel Suignard: When I get a changed font, I only use the changed glyphs. I do not do a 'wholesale replacement'. I only grab the changes. Also this is not an IRG matter either. It is a technical defect in the standard and would like to see it fixed as soon as possible. IRG should be kept informed. We are talking about 168 characters from one source and the review should be far easier and the changes are well documented.
 - w. Mr. Toshiya Suzuki: If a regional standard changes the glyphs, they should be covered by the unification rules. If a changed glyph ends up in being similar to another existing glyph, questions may arise.
 - x. Mr. Michel Suignard: To some degree you do have a valid concern. I have to double check on Annex S content - a glyph change may not look that good, but may cause problems similar to what we discussed earlier with Taiwanese example.
 - y. Mr. Peter Constable: The concern raised is far beyond examples in Annex S. If a font introduces a change that may go far beyond the unification rules etc. there could be negative impacts.
 - z. Mr. Michel Suignard: It is up to the national bodies not to introduce such changes in their fonts! If we discover something we have to find a way to document those.
- <<<< Mr. Michel Suignard will revise the document N4544. >>>>

Disposition: Accept the revised text proposed in document N4544 for sub-clause 23.2.

Action item: Ad hoc on principle and procedures to take note of section 2.1 and update the P&P document appropriately.

Relevant resolution:

M62.13 (Addition of sub-clause on presentation of updated ideographic sources):

WG2 accepts the proposed text for the sub-clause 23.2, from document N4544.

See also relevant resolution M62.06 item a on page 26.

9.2 Related to PDAM 1 – 4th edition

9.2.1 Nūshu script

Input documents:

[4484](#) Proposed Draft Amendment (PDAM) 1; Michel; 2013-09-27

[4513](#) Comments on Nūshu script in N4484/PDAM1; Suzuki Toshiya; 2013-12-25

[4533](#) Additional comments on N4483/PDAM1 - Nūshu; Suzuki Toshiya and Orié Endo; 2014-01-30

[4556](#) Reply to 4513 and 4533 Comments on Nūshu encoding; NB China; 2014-02-22

Output document:

[4561](#) Nūshu ad hoc report; Tero (ad hoc chair); 2014-02-25

An ad hoc group chaired by Mr. Taro Alto considered the various documents and reported its findings and recommendations in document [4561](#).

Mr. Taro Aalto: Thanks for everyone who participated in the ad hoc. There were two main questions in the discussion. First one - how to name the characters? The current naming is based on phonetic values, but the statistics behind that were not reliable. After discussion, the naming would be changed to be based on code points. The second aspect was to review the repertoire once again and pare it down to a common subset across multiple sources. If there are some that are not quite stable they would be removed for now and some others may be added if found to be common across multiple sources. The recommendation was to move the script to Amendment 2.

Discussion:

- a. Mr. Michel Suignard: Even if we change the names to be based on code point, we will keep the nameslist format. It will not be transformed to a CJK like format. There is a lot of information in the nameslist format. As to the review of the repertoire and finalizing what goes into the next Amendment 2, I need a date by which the repertoire will be finalized. If we find something to remove, we will leave a hole and new ones will go to the end of the list. This is not the time to move the characters around.
- b. Mr. Mike Ksar: When will China have the results of comparison of the sources etc. towards finalizing the repertoire?
- c. Mr. Chen Zhuang: By April 2014.
- d. Mr. Michael Everson: Apart from the name changes, the work of the editor will not be affected. If there are any changes to be made, based on the discussion among the experts, it will result in a set of ballot comments. That is my understanding.
- e. Dr. Ken Whistler: I think that is the right way to go forward as well. It will give you the basis for going ahead for Amendment 2 ballot. No change to fonts or glyphs and a new nameslist with change in the naming convention. Ballot comments could deal with any repertoire-related changes. One of the reasons there are no dates in the ad hoc report is because of that understanding. The proposed change is responsive to the Japanese ballot comments on Amendment 1. The name issue was one of Japan's concerns.
- f. Mr. Michel Suignard: OK. Now I know how to deal with Japan's comments. As to the UK, there is more work; only the block allocation would be addressed. If there are more characters we can extend the block.
- g. Mr. Michael Everson: Mr. Roozbeh Pournader is doing the nameslist - it will be sent to me.
- h. Dr. Deborah Anderson: I am looking at the roadmap - what was UK's request? 1B28F is requested as the end of the block.
- i. Mr. Michael Everson: Is 1B100 similar to the Punctuation sign for Tangut? It is Nūshu repetition mark.
- j. Dr. Umamaheswaran: That can also go into the new Ideographic Punctuation and Symbols block that was created for Tangut.
- k. Dr. Ken Whistler: This character is not the same as the Tangut mark. It is best to leave it where it is -- we do have the nameslist to assist, unlike the Tangut change to the chart format.

Disposition: Move current Nūshu to Amendment 2. Change the names with code points as basis - NUSHU CHARACTER-xxxxx. Shorten the block to end at 1B28F. Change the glyphs to accommodate US comments on PDAM1.

See relevant resolution M62.05 item b on page 19.

9.2.2 Names of Tamil fractions and symbols

Input document:

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

[4477](#) Response to L2/13-161 on naming Tamil fractions and symbols; Shriramana Sharma; 2013-08-09

[4478](#) Request to change one character name from N4430 L2/13-047; Shriramana Sharma; 2013-08-25

[4528](#) Spelling changes for Tamil fractions and symbols; INFITT WG2 on Tamil; 2014-01-27

Dr. Deborah Anderson: Document [N4477](#) is in response to some ongoing discussions on the names of these characters. There is a meeting in March in Chennai by INFITT discussing the Tamil fractions and symbols.

Discussion:

- a. Dr. Ken Whistler: These characters are in the Amendment 1 now. There are some technical discussions on their naming conventions. If we produce a PDAM from this meeting these characters should be in there to give a chance for review by others.
- b. Mr. Mike Ksar: What is the plan at this meeting?
- c. Dr. Umamaheswaran: The stable items from Amd. 1 would move to DAM1 and those we think need one more review we can move to a new Amd.2 to be generated at this meeting.
- d. Mr. Mike Ksar: We will need to generate a sub division proposal for Amendment 2. JTC1 has a new process for balloting based on 'no objection - it passes.'
- e. Dr. Ken Whistler: Documents [N4478](#) and [N4528](#) should also be under the advice from INFITT discussion.

Disposition: Accepted. Move the 6 characters in Tamil block and the 49 characters in the Tamil Supplement block that were added in Amendment 1 to move to the next Amendment. We will await the INFITT March meeting output on any name changes.

(Note: Capture all Malayalam fractions also to be moved to the next Amendment, since the naming issues for fractions are somewhat similar.)

Relevant resolution:

M62.06 (Additional changes in Amendment 1): WG2 accepts the following additional changes in Amendment 1:

- a. Per recommendation in document [N4544](#), remove Note 2 in sub-clause 23.1 (Note 1 may have to be renumbered to just a 'Note', as a consequence).
- b. Based on concerns expressed on naming of Tamil fractions in document [N4477](#), move the following Tamil characters that were added in Amendment 1, to a future Amendment for further technical review.
 - the **six** characters 0BDF, 0BFB-0BFF in the 'Tamil' block
 - the 'Tamil Supplement' block 11FC0-11FFF, and the **forty-nine** characters 11FC0-11FEF and 11FFF in that block.
- c. Since the Malayalam fractions are somewhat related, move the **ten** Malayalam fraction characters 0D58-0D5E and 0D76-0D78 that were added in Amendment 1 also to a future Amendment for further technical review.
- d. Delete 0D4F MALAYALAM LETTER CHILLU LLL from Amendment 1 (and add it to a future Amendment to be considered with other MALAYALM CHILLU letters being accepted for coding).
- e. Move 1032F OLD ITALIC LETTER TTE from Amendment 1 to a future Amendment for further technical review.

10 Script contributions not related to ballots

10.1 Carried forward

The following were carried forward from previous meetings:

Afáka SCRIPT ([N4292](#)); Bagam script ([N4293](#)); Balti 'B' ([N4016](#)); Balti scripts ([N3842](#)); 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](#)); Leke ([N4438](#)); Magar Akkha ([N4036](#)); Moon ([N4128](#)); Mwangwego ([N4323](#)); Nandinagari ([N4389](#)); 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](#)); Pau Cin Hau Syllabary ([N4412](#)); Persian Siyaq ([N4125](#)); Pyu ([N3874](#)); Raqm Numerals ([N4117](#)); Rohingya ([N4283](#)); Soyombo script ([N4414](#)); Tikamuli ([N3963](#)); Tolong Siki ([N3811](#)); Tulu ([N4025](#)); Woleai ([N4146](#)); Zou ([N4044](#))

Mr. Michel Suignard: The above list of scripts and other proposals have been carried forward from previous meetings. Scripts can be getting in and out of this list. For those that are single or small number of character proposals, if they had been discussed the authors will have to resubmit; they will not be in the list of carried forward items.

Discussion:

- a. Dr. Umamaheswaran: We have to be take care that we do not let things fall through the cracks ... WG2 has to at least consider the proposal once and the author should get some feedback.
- b. Mr. Michel Suignard: Of course; sometimes we may run out of time to consider some items, we should not drop those; such cases would be rare.

- c. Mr. Peter Constable: The list consists of items that have been considered at least once.
- d. Dr. Deborah Anderson: The following are to be added to the above list (arising out of action items review): Loma N3756, Naxi Dongba N4043, Khitan N3918 and Chinese Chess N3910.
- e. Dr. Anshuman Pandey: The following are candidates for removal from the list - they were all preliminary proposals and are being reworked: Coorgi-Cox Alphabet N4287, Dhimal N4140, Khema N4019, Kirat Rai 4037, Magar Akkha N4036, and Tikamuli N3963.

Action item: Dr. Umamaheswaran to update the list of carried forward items and inform the convener.

10.2 New Scripts or Blocks

10.2.1 Future additions to 10646

Input documents:

[4514](#) Future additions to ISO/IEC 10646; U.S. NB; 2013-11-07

[4546](#) More future additions; U.S. NB; 2014-02-06

From document [N4514](#):

Item 1: Mongolian Square script - discussed under item 10.2.8 on page 29.

Item 2: Arabic Extended-A - discussed under item 10.3.10 on page 37.

From document [N4546](#):

Item 1: Ruble Sign - discussed under item 10.3.5 on page 34.

Item 2: Supplemental Punctuation - discussed under item 10.3.6 on page 35.

Item 3: Malayalam characters - discussed under item 10.3.3 on page 32.

Item 4: Miscellaneous Technical symbols - discussed under item 10.3.12 on page 38.

Item 5: Mongolian characters - discussed under item 10.3.9 on page 36.

Item 6: Tangut script - discussed under 10.2.9 on page 30.

Item 7: Marchen script - discussed under 10.2.2 on page 27.

Item 8: Zanabazar Square script (new name for Mongolian Square script) - discussed under item 10.2.8 on page 29.

Item 9: Manichaeian Standardized Variation Sequences - discussed under 10.4.1 on page 39.

10.2.1.1 Clause 24.5.4 - Uniqueness of Name Aliases

Input document:

[4546](#) More future additions (item 10); U.S. NB; 2014-02-06

Item 10 in document [N4546](#) - The US requests to update Clause 24.5.4:

Insert ", character name aliases" after "For character names" in the second paragraph.

Mr. Michel Suignard: Title of clause 24.5.4 is 'Determining uniqueness'. It is a needed change. I will show the revised text. The aliases are also unique and they share the same name space as the character names.

Discussion:

- a. Mr. Peter Constable: Does Japan have any comments?
- b. Mr. Satoshi Yamamoto: No.
- c. Dr. Ken Whistler: The uniqueness applies to Name Aliases also. This was discovered as a defect in the 4th edition - you can view it as a late US national body comment on the 4th edition ballot.
- d. Mr. Mike Ksar: I understand the need. Any objections to the proposal from the US?

Disposition: Accept proposed wording insertion for inclusion in FDIS 4.

See *relevant resolution M62.02 item c on page 35*.

10.2.2 Marchen script

Input document:

[4491](#) Final proposal to encode the Marchen script; Andrew West; 2013-10-22

Dr. Deborah Anderson: This proposal is from Mr. Andrew West -- was introduced in Lithuania. The US national body experts have reviewed and are in agreement that the proposal is mature enough for encoding. Mr. Michal Everson has written to Mr. Andrew West to get the fonts to Mr. Michel Suignard.

Disposition: Accepted for next Amendment to 4th edition.

Relevant resolution:

M62.10 (Marchen script): WG2 accepts to create a new block named 'Marchen' in the range 11C70 to 11CBF, and populate it with 69 characters in code positions 11C70 to 11C8F and 11C92 to 11CB6, with their names and glyphs as shown in document [N4491](#).

10.2.3 Eskaya script of the Philippines

Input document:

[4499](#) Additional Information on the Eskaya Script of the Philippines; SEI - Anshuman Pandey; 2013-11-08

Dr. Anshuman Pandey: Document N[4499](#) formally introduces Eskaya script used in Philippines. Usage within the user community is not well known. A font is being developed. It is a syllabary with about 1065 characters in it. [Unicode Technical Note #35](#) mentions these as one needing further research. I am currently working with Mr. Piers Kelly to get more details and font.

Action item: National body feedback. Carry forward.

10.2.4 Ranjana script

Input document:

[4515](#) Proposal to encode Ranjana script; Devdass Manandhar; 2013-12-31

Dr. Anshuman Pandey: Ranjana / Newar are related ... in India, Nepal, China etc. It is modeled after Siddhamatrika. The Newar people had the idea that the script belongs to them. I have a related proposal on Newar. But the approach in this document is totally different - and they do not like the Newar proposal. There seems to be some sensitivity to ownership of the script. I had been working on Ranjana starting from the earlier work done by Mr. Michael Everson. Ranjana has some complex issues - due to use of Sanskrit and Tibetan with the same script. The proposal in document N[4515](#) is immature. It is glyph based; there is no mention about Virama, conjuncts etc. It addresses itself to Ranjana language and not other languages using this script. Character inventory-wise Ranjana would be a subset of Lantsa (Tibetan name for Ranjana). Chinese and Korean Buddhist groups have literature in Ranjana. In Korea it is often confused with Siddham. Some political aspects are involved. It is important to meet with them and sort out the various concerns. The authors are located in Nepal. We may be able to get the Korean national body to look at it. Their version of Siddham is really Ranjana.

Discussion:

- a. Mr. Toshiya Suzuki: The proposers are listed - the first two seem to be font designers. Is the user community wide? Are there users in Korea and China? Is the name Ranjana - derived based on a specific community of users?
- b. Dr. Anshuman Pandey: One of the referenced experts is an academic and is not at the university any more. The user community is small in Nepal. The name Ranjana is known in India and Nepal. It is known by other names Lantsa, Ltantha, Landzya etc. elsewhere.
- c. Mr. Toshiya Suzuki: Should this be a separate script or should it be a visual variation of something else?
- d. Dr. Anshuman Pandey: It is a separate script.
- e. Mr. Mike Ksar: Responses to questions like 'is the user community involved', 'is it a complete script' etc. do not seem to be answered correctly.
- f. Mr. Peter Constable: They do have something on conjuncts, but couched as grapheme joining etc.

Action item: Seek feedback from national bodies and liaisons. Carry forward.

10.2.5 Bhaiksuki script

Input document:

[4489](#) Revised Proposal to Encode the Bhaiksuki Script; Anshuman Pandey, Dragomir Dimitrov; 2013-10-27

Dr. Anshuman Pandey: This script proposal has seen many revisions. There was an issue about composition of vowels raised by Mr. Peter Constable. We found a way forward by using two part vowels. There was also a question about limited corpus. There are manuscripts that the scholars have not yet seen; one was released by China in a documentary, another one released by Bihar recently. The scholars are staying in Germany. The proposal is a contribution in collaboration with Mr. Dragomir Dimitrov. I am working on a revision of this proposal.

Discussion:

- a. Mr. Michel Suignard: The nameslist - is it stable? It could be a candidate for adding to next amendment, if it is mature enough before the amendment text is prepared.
- b. Dr. Anshuman Pandey: It is stable.

Disposition: Await revised version.

See also relevant resolution **M62.14** on page 41.

10.2.6 Scripts for Tangsa

Input documents:

[4496](#) Introducing Lakhum Mossang's Script for Tangsa; SEI - Anshuman Pandey; 2013-11-08

[4497](#) Introducing Latsam Khimhun's Script for Tangsa; SEI - Anshuman Pandey; 2013-11-08

Dr. Anshuman Pandey: Mossang's and Khimhun's proposal for Tangsa language go hand in hand. There is a debate in the user community as to which one is going to prevail? These scripts were invented in the last decade and are in use in India. Mr. Stephen Morey is the expert working in the northern part of India. Discussion:

- a. Mr. Michel Suignard: The names of these characters have 1 to n?
- b. Dr. Anshuman Pandey: The lists have to be updated with correct names.
- c. Mr. Toshiya Suzuki: Do you have information about user community. When you submit the full proposal could you give more information about user communities?
- d. Dr. Anshuman Pandey: Scripts are being invented quite frequently in India depending on geopolitical factors etc. These are new and are part of the Nagaland languages.
- e. Dr. Ken Whistler: Tangsa languages are used in Arunachal Pradesh and Assam. There are tens of thousands of users of Tangsa languages. This is a case where we should not be vehicle for developing the script; we should wait for them to develop their own typographical conventions and till they are mature we should not get involved.
- f. Dr. Anshuman Pandey: There are several of these scripts. Of these, only Gondi seems to be somewhere near being mature.

Disposition: For information to national bodies. Do NOT carry forward.

10.2.7 Adlam script

Input document:

[4488](#) Preliminary proposal to encode the Adlam script; SEI - Michael Everson; 2013-10-28

Mr. Michael Everson: The UTC has given feedback on this script proposal. The proposers will have another meeting with other user community members in New York City. The feedback has been communicated to users.

Disposition: Await revised proposal. For national body feedback. Carry forward.

10.2.8 Zanabazar Square script

Input documents:

[4471](#) Final Mongolian Square proposal; Anshuman Pandey; 2013-10-27

[4527](#) Comments on the Zanabazar Square proposal; Shriramana Sharma; 2014-01-26

[4541](#) Zanabazar Square proposal; Anshuman Pandey; 2014-01-22

Dr. Anshuman Pandey: This script was originally called Mongolian Square. There is no traditional name for it in Mongolia - it is a Central Asian script. There is a lot of material written in this script but not enough experts. There were some experts from Poland who I was able to contact. The experts use Zanabazar as the script name after the inventor; there is a book on it. Using Mongolian in the name would have been too restrictive. They had some comments on character names, and their suggestions have been incorporated in line with the Tibetan model. The original proposal had generic sub-joiner for combining. Based on further research a virama was discovered and the sub-joiner was renamed virama. There is also birga. There is an active body of scholars in Poland and Mongolia who are continually discovering new manuscripts. The experts have signed off on the proposal and have sent in a letter to SEI.

Discussion:

- a. Mr. Toshiya Suzuki: Is there any experts in China on this script? I am not sure if this script is out of scope of Chinese national body.
- b. Mr. Chen Zhuang: I have contacted our experts - the response was that the Chinese scholars were not interested in this script -- since its usage was in Outer Mongolia.
- c. Dr. Anshuman Pandey: There are some manuscripts with some Chinese characters in it.

Disposition: Accept for inclusion in next amendment to 4th edition.

Relevant resolution:

M62.11 (Zanabazar Square script):

WG2 accepts to create a new block named 'Zanabazar Square' in the range 11A00 to 11A4F, and populate it with 69 characters in code positions 11A00 to 11A44, with their names and glyphs as shown in document [N4541](#). Some of the characters are combining marks.

10.2.9 Tangut script

10.2.9.1 Tangut proposal

Input documents:

[4516](#) Tangut Meeting Summary; Debbie Anderson; 2013-12-10

[4522](#) Proposal to encode the Tangut script in the UCS; Andrew West, Michael Everson, Han Xiaomang, Jia Changye, Jing Yongshi, Viacheslav Zaytsev; 2014-01-21

[4525](#) Code chart for the Tangut script; Andrew West, Michael Everson, Han Xiaomang, Jia Changye, Jing Yongshi, Viacheslav Zaytsev; 2014-01-22

[4546](#) More future additions (item 6 re: Tangut); U.S. NB; 2014-02-06

Mr. Michael Everson: The proposal for several radicals and logographic signs for Tangut. Some characters have been moved from previous proposals. Almost all the characters come from one source - a large Chinese dictionary - from 2008. About 60+ come from other sources. Mr. Andrew West has put the proposal together to ensure mappings were stable. Characters are organized according to the stroke order. Principles and are reported in document [N4522](#). The Beijing meeting had all the relevant experts present and was positive. We had consensus on everything. The meeting summary is in document [N4516](#). The glyphs and fonts were retained from before. The radicals are being put off for further study. The proposed ordering of 500+ radicals was kept. Names identify the source of the character - *Tangut Sign L2008-xxxx*. These are used by experts to refer to the characters.

Discussion:

- a. Dr. Deborah Anderson: We reviewed this proposal, and in document [N4546](#) we have requested some changes -- "...with a change of name for the characters 17001...187ED to the format TANGUT IDEOGRAPH-XXXXX where XXXXX is the code point. The character at 17000 should retain the name in the proposal, TANGUT ITERATION MARK."
- b. Mr. Peter Constable: Tangut was looked at by WG2 in this very room. In WG2 M56 - that algorithmic names would be acceptable - per Mr. Andrew West's communications at that meeting.
- c. Dr. Deborah Anderson: There was some discussion about the names - no serious objection to the proposed name.

(See more discussion on Tangut character naming under section 10.2.9.2 below.)

10.2.9.2 Tangut character names

Input document:

[4543](#) Character Name considerations; Michel Suignard; 2014-02-20

Mr. Michel Suignard: This document is specifically to address the issues associated with Tangut character names. In ISO/IEC 10646 names are assigned based on meaning, shape, Hangul syllables or Ideograph code points. Unicode has more criteria - described in document [N4543](#). Every character has a name - may have a different property, characteristics etc. Some names are entirely catalog based, some are mixed with reading and catalog number -- whatever is the rationale behind it. I describe the issues associated with Immutability of character names. Once we make a mistake we need means to go around the mistake - even for silly errors. At some point the name becomes immutable - if it is rule-based one cannot make a mistake, whereas in others we can. In large sets which are based on catalogs, we do make mistakes, and we have faced several of these in the CJK source references. We have come up with mechanisms to fix these errors to respect the immutability of names. Tangut naming is discussed as a case study. The initial proposal was to treat Tangut as ideographs. The proposal in document [N4525](#) charts is based on catalog numbers - incorporating seven different sources. They cannot be unified into the same namespace. My biggest concern is that how you can guarantee error-freeness in the set of 6125. I already found a couple of errors - example: 184A1. I checked among 65 after reducing from 6000+. This has the wrong source recorded in the proposal. There are several characters from H2004 - with H1 and H2 sources ... but the namespaces of H1 and H2 sources collide. If another character is added there is bound to be more collisions. It seems to me that it is safer to go with rule-based names to avoid such errors because they are source-reference based. They will be named like CJK ideographs, for example: *Tangut Ideograph codepoint*. An example is shown on page 9 of document [N4543](#). The presentations could have multiple glyphs if needed. We should be able to have multiple sources if there is a need. The chart can be produced by using the source reference listed under the ideograph; for example, L2008-3256 can be presented in a UI if needed. The radical information can also be included similar to the CJK ideographs.

Discussion:

- a. Mr. Peter Constable: My opinion as an individual - in such cases the identity of the character is the source, not just the glyph and the code point. As part of the standard we need the source labels data also. A data file would be needed similar to CJK-src files. The UTC discussed this -- there were some abstentions ... but no objection to use of algorithmic names as proposed by Mr. Michel Suignard along with a data file.
- b. Dr. Ken Whistler: The data file containing this info already exists.
- c. Mr. Michel Suignard: Do you want multiple entries in the data file?
- d. Mr. Peter Constable: The right thing to do would be to capture all possible mappings.
- e. Mr. Michel Suignard: We can add multiple sources if they exist similar to Unihan, separately from what we decide for code charts.
- f. Dr. Ken Whistler: My take on it is that we have a data file containing the necessary information to duplicate what was felt by Mr. Andrew West as sufficient information in the current proposal. We can have that in the ballot and we can have feedback on whether more information is needed. If any of the other sources than what you will initially list is of sufficient interest then that can be part of the ballot comments.
- g. Mr. Chen Zhuang: I can go with what Mr. Michel Suignard has presented.
- h. Mr. Michael Everson: I am not convinced that finding a few errors in something created by one person would be sufficient reason to change the naming convention. One could compare the characters in a dictionary -- errors can be found with multiple eyes. The people are treating Tangut sources as if they are analogous to CJK. Tangut is much simpler than CJK's multiple national sources etc. Dictionary entry would be sufficient. There could be duplicates between dictionaries. Algorithmic names are useful in CJK, since no one uses Character Names. There are multiple character entry methods also, with a giant industry supporting these. Tangut is a dead script used by a small community without much support from the industry. The character entry could be by character pickers; I have used these as well as entering character names to enter some of these. My concerns are what I am expressing. The European Tangutologists prefer to have character names. Finding mistakes does not automatically mean that we should abandon character names. The conventional name used by Tangutologists is the dictionary plus the number. If we are not using that name we are treating as an 'exception' like the CJK.
- i. Mr. Michel Suignard: It is not an exception in the ISO/IEC10646 domain. You can continue using the names you had before, except that you will get these from a data file instead of straight from the nameslist.
- j. Mr. Michael Everson: In my knowledge the catalog number is what the Tangutologists prefer. The Chinese have not objected to it.
- k. Mr. Michel Suignard: The basic character picker needs some code; instead of looking up the long names one could use the data file and pick the correct character. It is a trivial way of doing what you need to do. We are not taking away the source reference information. I have found mistakes in a small set of 65 characters.
- l. Dr. Deborah Anderson: Got a feedback from Mr. Andrew West. He is happy that the repertoire was accepted. As to the names, even though the names as proposed were not accepted in the UTC, in the interest of progressing, he could go with algorithmic names.
- m. Mr. Roozbeh Pournader: Per Mr. Steven Loomis of the ICU team, for implementation, character pickers will be much better off by using data files such as the one for CJKSrc.txt as a much easier input method. A data file is much better in the context of pickers for catalog numbers etc. From that perspective I believe Mr. Michel Suignard's suggested proposal is far easier to implement.
- n. Mr. Chen Zhuang: I agree with Mr. Michel Suignard's approach.
- o. Mr. Toshiya Suzuki: Japanese experts had participated in Beijing.
- p. Mr. Michael Everson: I am concerned about when to use character names and when to use algorithmic names etc.
- q. Dr. Umamaheswaran: Mr. Michel Suignard has articulated the multiple ways of naming items in the standard. The P&P points to the existing methods that are defined in ISO/IEC 10646.
- r. Dr. Ken Whistler: Tangutologists use 17001 as a particular Tangut character. There is a giant spreadsheet of mapping between code points and the Tangut dictionary mappings etc. The first position used by Tangut Repetition Mark does not belong in the Ideographic scheme.

Disposition: Accept the repertoire. New block Tangut 17000...187EF. Populate with 6125 characters starting 17001...187ED. Modify the character naming conventions to the form 'TANGUT IDEOGRAPH-Codepoint'. Move proposed 17000 to a new block Ideographic Symbols and Punctuations (similar to CJK Symbols and Punctuations).16FE0...16FFF, with 16FE0 TANGUT REPETITION MARK.

Relevant resolution:

M62.12 (Tangut script):

WG2 accepts to create:

- a. A block named 'Tangut' in the range 17000 to 187EF, and populate the 'Tangut' block with **6125** ideographs in code positions 17001 to 187ED, with the presentation of charts and associated information in a form similar to CJK ideograph charts, following the methodology detailed in document [N4543](#)
- b. A block named Ideographic Symbols and Punctuation in the range 16FE0 to 16FFF, and populate with **one** character 16FE0 TANGUT REPETITION MARK

with their glyphs based on documents [N4522](#) and the charts in document [N4525](#).

Action Item: Dr. Umamaheswaran is to elaborate on character names in the P&P document working with Mr. Michael Everson.

10.3 Additions to Existing Scripts or Blocks

10.3.1 Latin letters for transliterating Indic scripts

Input document:

[4494](#) Proposal to encode Latin letters for transliterating Indic scripts; Anshuman Pandey; 2013-10-28

Dr. Anshuman Pandey: This document is my attempt at synchronizing characters needed for ISO 15919 and ISO 10646. These are for pre-composed Latin letters. The proposal was already rejected because no more pre-composed Latin letters are to be encoded. They can be represented using combining sequences today. This document is only for the records.

10.3.2 Archaic vowel signs O OO for Kannada

Input document:

[4518](#) Proposal to encode archaic vowel signs O OO for Kannada; Shriramana Sharma; 2013-12-31

This proposal is for feedback from national bodies and liaison. No action for this meeting.

Action item: National bodies and liaisons to feedback.

10.3.3 Malayalam

10.3.3.1 Malayalam Combining Anusvara Above

Input document:

[4517](#) Proposal to encode 0D00 Malayalam Sign Combining Anusvara Above; Shriramana Sharma; 2013-12-30

Mr. Peter Constable: This proposal came to the UTC, and there was a discussion. Several questions were raised; such as should it be Grantha or Malayalam etc. This proposal is not mature enough to proceed with. Feedback from India would be useful on this. The author has to discuss with Grantha and Malayalam experts.

Disposition: Await a revised proposal.

Action item: For national body and liaison feedback.

10.3.3.2 Malayalam Sign PARA

Input documents:

[4538](#) Proposal to encode MALAYALAM SIGN PARA; Debbie Anderson, 'Cibu Johny'; 2014-01-16

[4546](#) More future additions (item 3); U.S. NB; 2014-02-06

Dr. Deborah Anderson: It is for one character used as a sign for measuring rice grains in Kerala. Attestations are given in the document. The US national body has reviewed this and requests for addition of this character.

Mr. Mike Ksar: Any objections? (None)

Disposition: Accept 0D65 MALAYALAM SIGN PARA with its glyph as shown on page 4 in document [N4538](#), for next amendment to 4th edition.

Relevant resolution:

M62.09 (Character additions for a future amendment to the 4th edition):

WG2 accepts the following in a future amendment to the 4th edition of the standard:

- a. Malayalam characters:
 - Add 0D54 MALAYALAM LETTER CHILLU M (with its glyph from document [N4540](#)).
 - Add 0D55 MALAYALAM LETTER CHILLU Y (with its glyph from document [N4539](#))

Move 0D4F MALAYALAM LETTER CHILLU LLL (moved from Amendment 1 to a future amendment in resolution **M62.06** item d, above) to new code position 0D56

Add 0D65 MALAYALAM SIGN PARA (with its glyph from document [N4538](#)).

- b. Add 2E43 DASH WITH LEFT UPTURN (with its glyph from document [N4534](#)) in the 'Supplemental Punctuation' block.
- c. Add **Four** Arabic characters for Bravanese, in the 'Arabic Extended-A' block:
08B6 ARABIC LETTER BEH WITH SMALL MEEM ABOVE
08B7 ARABIC LETTER PEH WITH SMALL MEEM ABOVE
08B9 ARABIC LETTER REH WITH SMALL NOON ABOVE
08BA ARABIC LETTER YEH WITH TWO DOTS BELOW AND SMALL NOON ABOVE
with their glyphs from document [N4498](#).
- d. Add **Three** symbols in the 'Miscellaneous Technical' block:
23FB POWER SYMBOL
23FC POWER ON-OFF SYMBOL
23FD POWER ON SYMBOL
with their glyphs from document [N4535](#).
- e. Add 1F32D BLACK WANING CRESCENT MOON in the 'Miscellaneous Symbols and Pictographs' block, with its glyph from document [N4535](#).
- f. Add A7AE LATIN CAPITAL LETTER SMALL CAPITAL I, in the 'Latin Extended-D' block, with its glyph from document [N4549](#).

10.3.3.3 Malayalam Chillu Y

Input document:

[4539](#) Proposal to encode MALAYALAM LETTER CHILLU Y; Debbie Anderson, 'Cibu Johny; 2013-12-24

Dr. Deborah Anderson: This is a proposal for Chillu Y. Attestation is provided. The author also has requested some code point shuffling. the US national body supports the encoding and the request for moving.

Disposition: Accepted for next Amendment.

Move 0D4F MALAYALAM LETTER CHILLU LLL to 0D56 in Amendment 1 to next Amendment.

Add 0D55 MALAYALAM LETTER CHILLU Y with glyph from page 6 in document [N4539](#)

See relevant resolutions *M62.06 Item d on page 26 and M62.09 Item a on page 32.*

10.3.3.4 Malayalam Chillu M

Input document:

[4540](#) Proposal to encode MALAYALAM LETTER CHILLU M; Debbie Anderson, 'Cibu Johny; 2014-01-08

No objection.

Disposition: Accepted for next Amendment.

Add 0D54 MALAYALAM LETTER CHILLU M with its glyph from p 6 of document.

See relevant resolution *M62.09 Item a on page 32.*

10.3.4 Cherokee characters

Input documents:

[4487](#) Proposal for the addition of Cherokee characters; Michael Everson & Durbin Feeling; 2013-10-24

[4537](#) Revised proposal for the addition of Cherokee characters; Michael Everson, Durbin Feeling; 2014-02-22

Mr. Michael Everson: This proposal is the first time being seen by WG2. Two summers ago I had met the Cherokee experts in Oklahoma. They were complaining about their characters not on the cell phone etc. Their complaint was about casing. About a year ago I worked with them and out of that discussion came document [N4487](#). Document [N4537](#) is after the discussion in UTC. In 1970s we were using Faxes etc. At that time we really did not know they needed case pairs. The case pairs were also used in their government documents and in the Testament documents etc. It took them quite a while for them to use it even after the initial encoding. The case pairings was done by using larger types. They were also asking for a missing letter MA. It was not in the orthography before and was given a typographic form. See section 2. Unicameral to bicameral transformation was a big deal. All the letter properties had to be changed. The ramifications are mentioned in sections 3.1.1 and 3.1.2. Advantages and disadvantages are described there. The resulting recommendation is that all existing Cherokee letters should be considered as CAPITAL LETTERS ... and newer ones should be LOWER CASE. The advantage was the stability associated with current coding. In addition to CAPITAL and SMALL MA, we need also the SMALL LETTERS for others. In terms of encoding it would be advantageous to avoid cross plane mapping between case pairs. A new block of 80 characters containing lower case is proposed. See the

document [N4537](#) for details. The Cherokee community also wants others to know about their Italic and Oblique Italic. See section 7. Section 8 talks about use of Diacritic marks. Section 9 talks about timeliness -- would like to have it in earliest possible ballot. Page 14 has the existing code chart with additions in the block.

Discussion:

- a. Mr. Peter Constable: The UTC has reviewed this proposal. There is consensus in the UTC. Mr. Michael Everson has already described the discussion in the UTC. In section 10, the casing information is backwards; it should be corrected. The chart has them correctly done.
- b. Mr. Michael Everson: I missed correcting those - Lu and LI are to be interchanged. Also I have to fix other spelling errors.
- c. Dr. Ken Whistler: There are also other changes that have been missed.
- d. Mr. Michael Everson: I will submit another revised document.
- e. Ms. Lisa Moore: What about the timing?
- f. Mr. Michel Suignard: It is for Amd. 1. Include it in DAM1. It will contain Cherokee plus a set of miscellaneous characters.
- g. Dr. Ken Whistler: There are two Siddham characters - needing priority treatment, plus Cherokee. All the others can come along for a ride. Mr. Michel Suignard would like to move Old Italic out. I would like us to decide on Cherokee for Amd.1

Disposition: Reduce the Latin Extended block (already in 4th edition ballot comments). Add Cherokee referring to revised document [N4537](#) into Amendment 1.

Relevant resolution:

M62.07 (Cherokee additions): WG2 accepts to

- a. Add the following 7 characters to the Cherokee block:
 - 13F5 CHEROKEE LETTER MV
 - 13F8 CHEROKEE SMALL LETTER YE
 - 13F9 CHEROKEE SMALL LETTER YI
 - 13FA CHEROKEE SMALL LETTER YO
 - 13FB CHEROKEE SMALL LETTER YU
 - 13FC CHEROKEE SMALL LETTER YV
 - 13FD CHEROKEE SMALL LETTER MV,with their glyphs from document [N4537](#).
- b. Create a new block named Cherokee Supplement in the range AB70 to ABBF in the BMP, and populate it with **80** characters in code positions AB70 to ABBF, with their names and glyphs from document [N4537](#).

See also *relevant resolution M62.01 item b, on page 16*.

10.3.5 Ruble Sign

Input documents:

[4512](#) Proposal to encode the ROUBLE SIGN; Michael Everson; 2014-02-04

[4529](#) Proposal to encode the Russian Ruble Symbol; Russian NB; 2014-01-21

(Document [N4529](#) replaces document [N4512](#).)

Mr. Yury Timofeev: Russian national body requests to add the new Ruble sign. After a long discussion in the Russian Central Bank the new sign was created. The proposal was introduced in 2010. Now we are trying to include in Unicode. This sign is popularly used inside Russia. A One Ruble coin will be introduced this year and later in bank notes. The proposal document shows some examples. We would like to see it included in ISO/IEC 10646.

Discussion:

- a. Mr. Peter Constable: The UTC reviewed this proposal. We would like to see this character included. Due to nature of the character we would like to include in Unicode 7.0. We would like WG2 to find an earliest opportunity to include in ISO/IEC 10646.
- b. Mr. Mike Ksar: Can we include this in the DIS?
- c. Mr. Yury Timofeev: The exchange bureau example is from Armenia. The sign is based on Cyrillic R with the horizontal line through it.
- d. Dr. Umamaheswaran: What is the sync point for Unicode 7.0?
- e. Dr. Ken Whistler: The sync point is till end of Amendment 2 of 3rd edition. We are out of sync with ISO/IEC 10646.
- f. Mr. Michael Everson: I would like to bring to attention of WG2 is the spelling of the name of the currency sign -- referring to document [N4512](#) from Ireland. According to our P&P, the Oxford

dictionary is what we go for referencing. ISO 4217 has 'Ruble' already registered. This allows deviation from 'Rouble' per the OED.

- g. Dr. Umamaheswaran: I understand both 'Rouble' and 'Ruble' are accepted in OED. So we are not really violating OED.
- h. Mr. Michael Everson: Both appear in OED, but Rouble comes first. I am bringing this up for future such characters.
- i. Ms. Lisa Moore: Unicode 7.0 was mentioned - Its data files would be released this summer and it will include the Ruble sign.

Disposition: Accepted. 20BD RUBLE SIGN with its glyph as shown in document N4529. Include it in the FDIS ballot of 4th edition.

Relevant resolution:

M62.02 (Additional changes in 4th edition): WG2 accepts the following additional changes to the 4th edition:

- a. Addition of 20BD RUBLE SIGN with its glyph as shown in N4529 in the 'Currency Symbols' block.
- b. Capture annotation recommendations in the Siddham ad hoc report in document N4560.
- c. Insert ", character name aliases" after "For character names" in the second paragraph in 'Clause 24.5.4 Determining uniqueness'.
- d. Add five Manichaean Standardized Variation Sequences, 10AC5 FE00, 10AC6 FE00, 10AD6 FE00, 10AD7 FE00, and 10AE1 FE00, based on documents N4029 and N4546.

10.3.6 A Slavonic Punctuation Mark

Input documents:

[4534](#) Proposal to encode a Slavonic Punctuation Mark; Aleksandr Andreev, Yuri Shardt and Nikita Simmons; 2014-02-04

[4546](#) More future additions (item 2); U.S. NB; 2014-02-06

Dr. Deborah Anderson: This is a request to add one character. This is part of the Ponomar project requirement. It is a punctuation character. It has been reviewed by other Cyrillic experts. The US national body and the UTC have reviewed this also. There is no urgency.

Disposition: Accepted for next Amendment.

2E43 DASH WITH LEFT UPTURN with its glyph as shown in Table 2 in document N4534.

See relevant resolution M62.09 Item b on page 32.

10.3.7 Cedillas and commas below, take 2

Input document:

[4536](#) Cedillas and commas below, take 2; Eric Muller; 2013-07-13

Dr. Ken Whistler: This document is a follow-on document to a problem with Cedillas and Commas Below that Mr. Eric Mueller had submitted earlier. The document articulates the alternative methods of dealing with the issues. It is an analysis with a number of suggestions. It is not proposing any specific action from WG2. In my opinion it is not a good idea to look at alternatives as they will lead to more potentially confusing situations. Item 4 is for Unicode to document but no action for WG2 - to encode or add text to ISO/IEC 10646. ISO/IEC 10646 does not say anything about the usage of these characters nor is it requested. It is FYI for WG2.

Disposition: Noted.

10.3.8 Latin characters for Marshallese

Input document:

[4466](#) Proposal for the addition of Latin characters for Marshallese; Michael Everson; 2013-06-25

Dr. Ken Whistler: This proposal is a method under item 3 in document N4536. As Mr. Eric Mueller points out, that it will introduce more inconsistencies. In my opinion, it does not offer a general solution, and confuse people more. The net is that the current situation, though confusing, should be handled by explanatory text.

Discussion:

- a. Mr. Michael Everson: One of the items was that there is no direct communication with Marshallese authorities for their opinion. The best practice is to support the Latvians as is done right now. The reason for discussing these at all is that Marshallese have not weighed in on this.
- b. Dr. Ken Whistler: For sure there will be some attention to this problem in the documentation. Whether that is sufficient for satisfying the concerns expressed by Mr. Michael Everson, we do not know at this time. In any case, there is no action to take for WG2 at this time.

Disposition: Not accepted.

10.3.9 Five Mongolian head marks

Input documents:

[4542](#) Proposal to encode five Mongolian head marks; Aaron Bell, Greg Eck, Andrew Glass and Andrew West; 2014-02-06

[4547](#) Comments on 4542 Five Mongolian Head Marks; NB China; 2014-02-19

Mr. Peter Constable: There are several Head marks. People are discovering others that would need encoding considerations. After discussions in the UTC we recommend addition of five Mongolian head marks. The proposal is summarized on page 3 of document [N4542](#).

Discussion:

- a. Mr. Chen Zhuang: We contacted Mongolian experts in China, and we found more Birgas. There were about 9 not just 5. There were other presentation forms also. We would like discuss with WG2 experts by email before finalizing this set.
- b. Mr. Peter Constable: We discovered some fonts were being distributed using non-standard code points. This proposal was also meant to deal with that situation of non-standard usage. If we can get these five added regardless - at least that issue could be resolved. They are not candidates to rush into Amd. 1. Holding back by an extra meeting for inclusion in the next Amendment will not make a major effect.
- c. Mr. Michel Suignard: I do not like the fact that a mistake in the field is not rectified earlier. Wrong implementations should be fixed earlier. I would like to see more national body feedback earlier.
- d. Dr. Ken Whistler: The editor can engage in the discussion between US and China and if there is a consensus we can add to the next Amendment. But I do not think we can take a resolution at this meeting.
- e. Mr. Chen Zhuang: Chinese experts are also considering use of variation selectors rather than what is proposed.
- f. Mr. Michel Suignard: Mongolian has three variation selectors - script specific. If we run out of these, for VS-s, there will be a mixed model of script specific and generic variation selectors. It would be a mixed model. It will be kind of nice to have only a single solution rather than a mixed model etc. There is a defacto use with VSs which is not conformant.
- g. Mr. Peter Constable: It is not clear if use of VSs or separate code points -- which one is better. The current defacto use in Microsoft is in conversation with experts in China. A quicker resolution to this is certainly preferable. I hear Mr. Michel Suignard's preference to draw attention by including these in the ballot. It does not limit us to be constrained to what goes into the ballot. If there is no consensus to what is in the ballot, we will have the option of pulling them out.
- h. Mr. Mike Ksar: Will China have objection to include the proposed 5 into the next Amendment ballot?
- i. Mr. Chen Zhuang: <<After getting feedback from Chinese experts>> We are following a completely different way of handling the Birgas. There are 9 birgas plus a couple of others. We are not in favour of going ahead with these for ballot at this time. There may be different ways using variation selectors etc.
- j. Mr. Michel Suignard: I am bit concerned about the direction of using glyph based decisions. A word of caution .. not to make it too complicated .. making it difficult to be supported. Mongolian is already complicated as is. I still would like to have communication between experts prior to issuing the next Amendment. If we can reach a consensus direction, we should be able to add these into the next Amendment. We may not need all of the possible variants. Mr. Andrew Glass may agree with Chinese experts after some discussion. It is similar to what happened with Nüshu ... a dialog enabled to get some proposal agreed to be placed on the ballot. PDAm is only a committee ballot and allows us to have multiple rounds.
- k. Mr. Chen Zhuang: Mongolian is a different issue. We have already set a schedule to get our work done -- and I am not sure we can get the work done two or three months earlier.
- l. Mr. Michel Suignard: I would like to keep the possibility open -- in case we were able to arrive at a consensus. I would like these to be given some visibility. We have an unstable situation with non-conformant implementations out there. The more we wait there will be prolonging the unstable situation.

- m. Mr. Mike Ksar: Can we go ahead with the proposed 5? If a better consensus proposal is arrived at we can use that to replace these 5. It will give these the visibility for these.
- n. Mr. Michel Suignard: There is a conflict in the approach being used for encoding these - standalone, variants or mixture of these.
- o. Mr. Peter Constable: The procedures in ISO allows the project editor considerable leeway. If he feels it is constructive to add something he has the discretion to do what is needed.
- p. Dr. Anshuman Pandey: I am working with Mongolian experts, though not on Birga issue .. on Zanabazar. I recommend to do due diligence on these rather than rushing into it.
- q. Mr. Peter Constable: The step going into an Enquiry Draft would be rushing into something, rather than a Committee Draft, which is within the WG.
- r. Mr. Michael Everson: I don't think it is a good idea to use VSs for punctuations .. if you compare with Tibetan, we encode as many of these as we need. Shaping the actual letters is complicated enough for Mongolian.
- s. Mr. Michel Suignard: Mr. Andrew Glass had considered a much larger set of Birgas and his conclusion was not to use VS-s.
- t. Dr. Ken Whistler: There are 20 free slots in Mongolian in the BMP.

Disposition: Await further discussion between the project editor, China and the US national body.

See also relevant resolution M62.14 on page 41.

10.3.10 Four Arabic characters for Bravanese

Input documents:

[4498](#) Proposal to encode four Arabic characters for Bravanese; Roozbeh Pournader; 2013-11-06

[4514](#) Future additions to ISO/IEC 10646; U.S. NB; 2013-11-07

Mr. Roozbeh Pournader: Some characters in Arabic Extended block are proposed for minority language Bravanese in Somalia. These were brought to the UTC and asked for these urgently. They were asking for five characters but no clear evidences etc. Four of these were considered as accepted, and one of them is still not. This proposal has the four agreed upon characters in the UTC discussions.

Discussion:

- a. Dr. Deborah Anderson: These were also asked for in document N[4514](#) by the US. The US national body has reviewed these and considers them OK to add to the standard, in the next Amendment.
- b. Mr. Peter Constable: There are other issues for complete coverage for Bravanese. The proposed four characters are OK.

Disposition: Accept four characters for the next Amendment.

See relevant resolution M62.09 Item c on page 32.

10.3.11 Siddham digits

Input document:

[4467](#) Proposal to encode a set of Siddham digits; Anshuman Pandey; 2013-06-15

Dr. Anshuman Pandey: The ten proposed digits are based on information uncovered in their use in Japan. The digit 2 is used as a mark of repetition (pronounce the previous twice). Two of these digits - repeat three times. In the Japan model, the digit two does not have the same meaning. These digits appear in Matrika inscriptions. These digits are from Japanese usage. We will still need to uncover regular use of these as regular digits. The knowledge of these having meaning of numbers seems to have been lost during the transfer of these characters from India to Japan. The UTC has asked for more evidence of their use of these as digits -- the only evidence is their use as repetition marks at this time.

Discussion:

- a. Mr. Mike Ksar: Are we not asking for these to be encoded now?
- b. Mr. Toshiya Suzuki: In this proposal - the evidence seems to be based on Japanese usage. If you do further research on these you may find Matrika digits evidence. If you discover any of these digits and if they have different glyphs which form would you prefer?
- c. Dr. Anshuman Pandey: The digits have some consistency across the various scripts. On the website they call them Hindi digits. I cannot answer your question, since I don't have enough information. Perhaps you will be in a better position to answer the question.
- d. Mr. Toshiya Suzuki: My personal opinion is that Siddhamatrika digit shapes would be preferred.

- e. Mr. Kyonori Nagasaki: Sidhhamatrika should be the preferred according to researchers. But the Japanese, Chinese and Korean shapes of these are very different from the Indian origin.
- f. Dr. Anshuman Pandey: One way of dealing with these is to look at what we did for Tibetan. To some extent we could come up with some unification of the various shapes .. we could treat them to some extent as Font distinctions unless there are behavioural distinctions. Even if we use the Japanese glyphs for the encoding .. we could easily use the encoding with appropriate glyph / fonts to get the appropriate shapes. Any new additions to Siddham, from any source Japan, Korea, China or Indian, could be accommodated within the model .. they are all Siddham. The way the script works has not changed for a long long time though some minor variants may have crept in usage.
- g. Mr. Mike Ksar: These are for further study.

Disposition: Await a revised proposal.

10.3.12 Power symbols

Input documents:

[4535](#) Towards a proposal to encode power symbols; Michael Everson; 2014-02-04

[4546](#) More future additions (item 4); U.S. NB; 2014-02-06

[4567](#) Background for power symbols document 4535; Joe Loughry; 2014-02-26

Mr. Michael Everson: Messrs. Terence Eden, Joe Loughrey and Bruce Nordman, had submitted document N4567 containing a number of symbols that are used in documentation with electrical power diagrams. There are also IEC standard symbols. Document N[4535](#) suggests the encoding, names, glyphs etc. One of them is unified with an existing character 2B58 HEAVY CIRCLE.

Disposition: Accept four characters - 3 in Miscellaneous Technical block and one in Miscellaneous Symbols and Pictographs block.

See relevant resolution M62.09 Items d and e on page 32.

10.3.13 “Unifon” and other characters

Input documents:

[4262](#) Proposal to encode “Unifon” and other characters; UC Berkeley Script Encoding Initiative - Michael Everson; 2012-04-29

[4549](#) Revised Unifon proposal; Michael Everson; 2014-02-24

Mr. Michael Everson: WG2 has heard of Unifon earlier in document N[4262](#). It was originally developed in 1950 to enhance English language literacy .. also for native languages in Northern California. This proposal has a smaller subset of characters for modern English use. Other characters are for further study. Unifon was originally using all caps before in picture textbooks etc. With casing it is used in styled text. About 2/3 are already in Latin script. One of the questions was what the non-small caps letters should look like? Section 4 describes the set of letters some of which are in Latin. Section 5 discusses some needed letters for Unifon. Confusability exists. In Fonts one could distinguish them with extended Serifs. Results of some considerations for unification and naming, based on discussions at the UTC are outlined. Small letter dhe in 5.13 would be changed to look like what Osage may need! I would like to see this in the next Amendment.

Discussion:

- a. Dr. Ken Whistler: Mr. Michael Everson has done a lot of stuff here. I still have some questions. He has invented the Casing. The example of dhe was an instance where inventing casing for such scripts. I don't think a case has been made for encoding Unifon at all. I think it is still 'Alice in Wonderland'! A case for Digital Representation of text has not been made. Lots of information of why characters can be or cannot be unified etc. While there may be some material, it is a dead orthography. Maybe a case could be made of historical representation of these. A case has not been made to represent these as digital text versus facsimile etc. It is the issue of 'is it necessary to have the invented casing' etc. I really do not like this particular extension request.
- b. Mr. Peter Constable: I do have similar concerns. Section 1 talks about different specific users. Evidence is not added here for a user community.
- c. Mr. Michael Everson: The previous document shows the evidences but this document has filtered out the non-English uses.
- d. Mr. Peter Constable: I do not have basis to say - it is constructed extensions used by some private individuals versus a larger user group etc. Would like to see a stronger rationale / justification.

- e. Mr. Michael Everson: I do not know how to respond to show the user communities etc. There is a small user group. It seems to me completely legitimate to be able to publish books showing old stuff etc. Yes it could always be done using facsimile.
- f. Dr. Ken Whistler: You say there is a Yahoo group; there are 40 members of this group. There are a few postings on it. I want to know where is the user community that is interested in this particular collection of proposed characters other than a hobbyist group. It is totally different from a user group working on Osage etc.
- g. Mr. Michael Everson: Can we at least look at the request at A7AE LATIN SMALL CAPITAL I for the Kulongo language. It was from a previous collection with confusability issues.
- h. Dr. Ken Whistler: I agree that it is in use in Kulongo etc. in a standard orthography. However it does create additional confusability issue similar to several other I-s. I would not have objection to going ahead with it in the next Amendment.

Disposition: Accept one character for next Amendment - A7AE LATIN CAPITAL LETTER SMALL CAPITAL I, from page 2 of document N4549.

See relevant resolution M62.09 Items f on page 32.

10.4 Miscellaneous Proposals

10.4.1 Manichaeian Variation Sequences

Input documents:

[4029](#) Second revised proposal for encoding the Manichaeian script in the SMP of the UCS; SEI - Michael Everson, Desmond Durkin-Meisterernst, Roozbeh Pournader, and Shervin Afshar; 2011-05-10

[4546](#) More future additions; U.S. NB; 2014-02-06

Mr. Roozbeh Pournader: The original proposal had asked for variations similar to other scripts like Phags-Pa. The script model was understood to include those variation sequences also. Somehow these did not make it into the standard. The proposal was further discussed and request from the US national body is to add five Manichaeian Standardized Variation Sequences (see item 9 in document N4546).

Discussion:

- a. Dr. Ken Whistler: These, being catch up-s with an existing script, the US thinks these would be candidates for Amendment 1.
- b. Mr. Roozbeh Pournader: The earlier these are added to the standard it would be better for the users of the script.
<<Prior to Discussion of Draft Resolutions>>
- c. Mr. Michel Suignard: The Manichaeian VSs - I have prepared the Standardized Variation Sequences. It is much easier for me to add these to the FDIS itself instead of waiting for Amd. 1. This repertoire is already in pre-4th edition. This would mean you will not have a chance to have a round of technical ballot.
- d. Dr. Ken Whistler: From the Unicode point of view it ends up being at the same time as Amd. 1. From timing point of view, it does not make any difference for us.

Disposition: Accepted to move these to FDIS of 4th edition. Five Manichaeian Standardized Variation Sequences based on document N4029 (page 4) and document N4546.

See relevant resolution M62.02 item d on page 35.

10.4.2 Osage

Input document:

[4548](#) Preliminary proposal to encode the Osage script; Michael Everson, Herman Mongrain Lookout, Cameron Pratt; 2014-02-20

Mr. Michael Everson: The Osage language is related to several others in and around Oklahoma .. a different branch from Dakota. It is relatively endangered. Quite a bit of literature available written in Latin orthographies. In 2004 there was a language revitalization program Under Herman Mongrain Lookout as the director. There was no standard orthography at that time. An all Latin capital letters based one was devised. In 2006 another effort based on Latin / Fusion of Latin letters was developed. They had only one font and one style for about six years. In 2012 they reviewed the revitalization process. They invited me and several others in the field. They were aware of Unicode due to Cherokee connection. Questions about the typographic nature were discussed. They held a conference in 2012 - a number of teachers, graphic designers etc. were invited. The structure of the script is described in the document. The diacritic in vowels is not a combining mark. Five reforms were agreed to at the Feb 2014 meeting. These reforms are described in the document. Case distinction was recognized as an issue. Several letters were

abolished - found to be not used or useful. Nasality representation was modified. The user community is aware of the need to get a stable repertoire. This document is a preliminary proposal. The children have invented several of the characters themselves. These have also been taken into consideration. Page 10 shows Official Osage font and a heavy display font. Page 12 shows a code chart that came out of the discussions. Choice of glyphs etc is being reviewed. There are some on-going developments till things are finalized prior to proceeding with coding these. The proposal is for review and feedback.

Discussion:

- a. Dr. Anshuman Pandey: How were the decisions made on the question of Serif versus no serif?
- b. Mr. Michael Everson: They know the origins being Latin based. If at the end of the day, if they decide, there are only so many fonts out there. Mr. Chris Harvey - the language geek ... also had released a serified version.
- c. Dr. Anshuman Pandey: What is the literacy rate in this group?
- d. Mr. Michael Everson: Greater number of people are L2 learners. There is a facebook group - one Osage person was able to order a Hamburger online! They got excited when they saw what the Cherokee were doing. Glottalized letters are using the ASCII apostrophe.
- e. Dr. Anshuman Pandey: There is a one to one phoneme to letter correspondence. If they find a word that is not in their language, how would they transcribe in their language/script? Use a 'nukta' equivalent?
- f. Mr. Michael Everson: If we have to transcribe something, there is no answer yet, and it is out of their current focus. Osage have no particular desire to propagate. They are not envisaging an Osage IPA.
- g. Mr. Toshiya Suzuki: The proposed code chart shows the typeface with Serif style. The existing text seem to be using sans-serif font. Is there an evidence of use of serif font?
- h. Mr. Michael Everson: There is no such existing document. They are inventing this script. Typographical transformation is starting up .. written text in the new orthography does not exist.
- i. Dr. Ken Whistler: I want to know why this is NOT Latin. Where is the claim that this is a distinct script? Why is it not an extension of Latin script? It is trying to be Latin! It seems to be an extension of Latin, cloned on Latin, some are Latin letters, has casing, and is used as Latin. There is one to one mapping to Latin. Behaves like Latin, based on Latin, a bunch of letters that don't look like Latin, why is it not an extension of Latin? To make it look politically and ethnically distinct? There is clearly a distinct orthography, but why should it be distinct from Latin as a script? This is not addressed in the proposal.
- j. Mr. Michael Everson: If we were to unify, we could with several.
- k. Dr. Ken Whistler: The invention of the serif version has a bearing on the identity of these. The way they turned into serifs or italics etc. seem to fit into Latin typography. Both language revival movement and orthography would be probably better served as a Latin script extension. It could give a way in a scaleable manner for additional items discovered for the phonology of the language. I think that kind of questions have to be answered before we accept what is presented.
- l. Mr. Michael Everson: That is fair enough. It is unlike Lisu.
- m. Dr. Ken Whistler: Lisu has different set of problems, whereas Osage seems to be more Latin extendable.
- n. Mr. Michel Signard: If they present a Latin capital letter I that looks like something else, it will be Latin capital letter Osage I etc.
- o. Dr. Ken Whistler: No phonology transfer from Latin, but letter forms could be used.
- p. Mr. Michael Everson: I will take the feedback to Osage community. They are interested in writing their language in a computer in a good way. They would have to have a tailored sort if they use Latin script.
- q. Mr. Peter Constable: That could be dealt with in CLDR. What do you expect about the evaluation and timescale?
- r. Mr. Michael Everson: We have an action in the short term to create text in a variety of fonts etc. They may not object to having Osage extensions for Latin and use the rest of Latin letters that could be used. They may take to the idea very readily. I will be working with them offline. I will possibly visit them prior to Sri Lanka meeting.
- s. Mr. Peter Constable: As an exercise they may want to consider as they are considering the typography options, they could look at Latin characters etc. also. Opening the stuff to use Latin

would open the doors for various things. I would like to have a sense that there is some level of stability that has been reached. I do not have that sense yet.

- t. Mr. Michael Everson: I agree with you about the stability yet. Pre-aspirate fonts etc. are still being experimented with.. We can also work with the new scheduling information for Unicode to give them some time related guidance.
- u. Mr. Peter Constable: The stability will be a concern if they keep changing directions.

Disposition: Await revised proposal; based on feedback in the above discussion.

10.5 Progression of Accepted Proposals

Output documents:

[4564](#) Approved Disposition of Comments DIS 4th edition; Michel Suignard; 2014-02-26

[4565](#) Approved Disposition of Comments Amendment 1; Michel Suignard; 2014-02-26

[4568](#) DAM1 Content; Michel Suignard; 2014-02-27

[4569](#) PDAM2; Michel Suignard; 2014-02-26

[4570](#) Subdivision of work for PDAM2; Mike Ksar, Michel Suignard; 2014-03-18

[4571](#) 4th edition delta FDIS charts; Michel Suignard; 2014-02-27

Progression of DIS of 4th edition to FDIS, of PDAM1 to 4th edition to DAM1, and creation of subdivision for Amendment 2 and its progression as PDAM2 are captured in the following resolutions, along with their target dates.

Relevant resolutions:

M62.03 (Progression of 4th edition):

WG2 instructs its project editor to prepare and to forward the final text of the 4th edition of the standard, which will include the changes arising from resolution **M62.01** and **M62.02** above, along with the final disposition of comments (document [N4564](#)) to the SC2 secretariat for processing as an FDIS ballot. The code charts for additions in the 4th edition will be in document [N4571](#). The target starting dates are unchanged: FDIS 2014-03.

M62.08 (Progression of Amendment 1 to the 4th edition):

WG2 instructs its project editor to prepare and to forward the final text of Amendment 1 to the 4th edition of the standard, which will include the changes arising from resolutions **M62.01**, and **M62.05** to **M62.07** above, along with the final disposition of comments (document [N4565](#)) to the SC2 secretariat for processing as a DAM ballot. The final code charts will be in document [N4568](#). The target starting dates are modified to: DAM: 2014-04, FDAM: 2014-11.

M62.14 (Project subdivision for future second amendment to the 4th edition):

WG2 instructs its convener and project editor to create a project subdivision proposal document (will be document [N4570](#)) for creation of a second amendment to ISO/IEC 10646 4th edition, to include the items moved from Amendment 1 in resolution in resolution **M62.06**, and the items accepted in resolutions **M62.09** and **M62.13** above. The schedule for the Amendment will be determined by the project editor. WG2 notes that Bhaiksuki script (revised), and Mongolian Birga characters (from document [N4542](#)), are some additional candidates for inclusion in the text of Amendment 2.

11 Liaison reports

11.1 Unicode Consortium

Input document:

[4566](#) Unicode Liaison Report to WG2; Peter Constable; 2014-02-26

Mr. Peter Constable: A beta for Unicode 7.0 has been opened for receiving feedback. Unicode 7.0 is planned to be published in July 2014. There are no major architectural changes. The bidi algorithm changes have been made.

Discussion:

- a. Mr. Michel Suignard: The reference in the 4th edition for Unicode 7.0 and collection identifier for Unicode 7.0 needs to be updated. The link will be alive at time of publication of the 4th edition.
- b. Mr. Peter Constable: UAX9 and UAX15 are minor edits. UAX9 was reported at the last WG2 meeting - and the significant bidi changes were done in Unicode 6.3. Changes are to address implementation details. Draft for next version will be most likely after next WG2 meeting. In order to manage the editorial processes and different synchronizing points of Unicode standard, we will be moving to an annual publication process. We would invite WG2 to consider what would be most appropriate for maintaining synchronization between ISO/IEC 10646 and Unicode. The repertoire has to be stabilized around January or February each year to be in synch with that year's version of Unicode.
- c. Dr. Umamaheswaran: The ISO process has to have a stable version by January or February to be in synch with the summer version of Unicode for that year.

- d. Mr. Peter Constable: If the ballot resolution happens only in April kind of time frame, there will be a longer period before synchronization can happen. I leave it to WG2 to consider in terms of scheduling meetings, issuing of ballots etc. Moving of documents to the LiveLink is an issue. Moving of SC2 documents to LiveLink -- especially the closed documents -- accessing for discussion of these is a problem. Texts of the documents that are at the SC2 and beyond levels of ballot are closed.
- e. Dr. Umamaheswaran: The current rules are such that national bodies are expected to distribute these to national body members. Current ISO rules are such that these are available only through national body distribution.
- f. Dr. Ken Whistler: It is crazy that WG2 experts have no access to the texts of ballots on which we are deciding on dispositions etc.
- g. Mr. Michel Suignard: We can bring it up to level of SC2.
- h. Mr. Peter Constable: It is hindering the work of WG2.
- i. Dr. Umamaheswaran: We can create a contribution identifying the issue and seek SC2 assistance if helping out.

Relevant resolution:

M62.16 (Availability of enquiry drafts for WG2 experts):

Access to enquiry drafts are now controlled via the ISO/IEC "OpenText" content server, with many WG2 members not having sufficient rights to access these drafts in the lists of JTC1/SC2 N-documents on that system. This results in WG2 members not having access to documents that need to be discussed in ballot resolution meetings. Therefore, WG2 requests that SC2 and its secretariat explore options to enable WG2 members to have access to enquiry draft documents for review and to facilitate consideration of these drafts and ballot responses at WG2 meetings.

11.2 SEI

Input document:

[4545](#) SEI Liaison Report to WG2 Feb 2014; Debbie Anderson, SEI – UC Berkeley; 2014-02-13

Dr. Deborah Anderson: A summary of the recent activities from Script Encoding Initiative, UC Berkeley, is provided in the document. The list is shorter than before. Request for funding to continuing the work is in progress.

Action item: For national bodies and liaisons to take note.

12 Other business

12.1 Future Meetings

• **Meeting 63 - 2014-09:**

Mr. Harsha Wijayawardhana of ICTA, Sri Lanka, has confirmed the meeting dates as Sep 29 to Oct 3 2014 in Colombo, Sri Lanka. The logistics information will be coming later. This meeting will be co-located with SC2 meeting.

• **Meeting 64 – 2015 Spring/Summer**

Mr. Mike Ksar: Can we say Russia as tentative?

Mr. Yury Timofeev: Even to say tentative, I will need to have consultations. I can get back to you in about two weeks.

Mr. Michel Suignard: We are flexible as to the timing. For any special events the delegates can contribute to the expenses etc.

Mr. Yury Timofeev: Russia will require visa for most country citizens in the world.

Mr. Mike Ksar: We cannot fix the dates at this meeting ... I can also check with Germany.

Mr. Alain LaBont'e: The dates would be important; they are useful for other planning.

• **Meeting 65 – 2015 Fall**

Mr. Mike Ksar: We are looking for a host. Can US could be tentative? I have a feedback that they need time to look at the budget etc.

Relevant resolution:

M62.19 (Future meetings):

WG2 endorses the following schedule for future meetings of WG2:

Meeting 63 - 2014-09-29/10-03, Colombo, Sri Lanka; (co-located with SC2)

Meeting 64 - 2015 (late summer or early fall); looking for host (Russia?)

Meeting 65 - 2016; looking for host (USA Tentative)

13 Closing

13.1 Approval of Resolutions of Meeting 62

Output document:

[4554](#) Resolutions Meeting 62; Mike Ksar; 2014-02-28

Draft resolutions were presented. Modifications were made. Final adopted resolutions are in document N4454.

After the resolutions were approved the counts of characters in the standard are as follows:

Character count 110181 in 3rd edition

1769 additions in Amd. 1 to 3rd edition

1070 additions in Amd. 2 to 3rd edition

Character count 113020 (total prior to start of 4th edition)

7565 additions in FDIS of 4th edition

101 additions in DAM1 to the 4th edition

6741 for future amendment 2

Character count 127427 (total allocated to date)

Appreciations:

Relevant resolutions:

M62.20 (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.

M62.21 (Appreciation to Host):

WG2 thanks the US national body, the Unicode Consortium and Adobe Systems Incorporated, in particular Ms. Lisa Moore, Dr. Ken Lunde and Ms. Ellen Mastros, for hosting the meeting, providing excellent meeting facilities, and for their kind hospitality and dinner.

13.2 Adjournment

The meeting adjourned at 12:05 h on Friday 2014-02-28.

14 Action items

All the action items recorded in the minutes of the previous meetings from 25 to 57, and 59, have been either completed or dropped. Status of outstanding action items from previous meetings 58, 60 and 61, and new action items from this meeting 62 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, 2013-06-010/14, Vilnius, Lithuania, (document N4403)
 Meeting 62, San Jose, CA, USA; 2014-02-24/28, (document N4453) (this document)

14.1 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 M62 – in progress.	In progress.

14.2 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-60-10	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 and M62 -- in progress.	In progress.

14.3 Outstanding 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).	Status
AI-62-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
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). M62 -- in progress.	In progress.

14.4 New action items from meeting 62, San Jose, CA, USA; 2014-02-24/28

Item	Assigned to / action (Reference resolutions in document N4454, and unconfirmed minutes in document N4453 for meeting 61 - this document you are reading).	Status
AI-62-1	Recording Secretary - Dr. V.S. UAMaheswaran	
a.	To finalize the document N4454 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N4454.
b.	To finalize the document N4453 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N4453.
AI-62-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items:	
a.	M62.18 (Roadmap snapshot): WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N4530) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
b.	M62.17 (Principles and Procedures): WG2 instructs its convener to post the updated Principles and Procedures (in document N4502) to the WG2 web site and communicate the same to SC2 secretariat.	Completed.
c.	To communicate to SC2 the following resolution: M62.16 (Availability of enquiry drafts for WG2 experts): Access to enquiry drafts are now controlled via the ISO/IEC "OpenText" content server, with many WG2 members not having sufficient rights to access these drafts in the lists of JTC1/SC2 N-documents on that system. This results in WG2 members not having access to documents that need to be discussed in ballot resolution meetings. Therefore, WG2 requests that SC2 and its secretariat explore options to enable WG2 members to have access to enquiry draft documents for review and to facilitate consideration of these drafts and ballot responses	Completed.

	at WG2 meetings.	
d.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list of documents under AI-62-9, items a and d - below.)	Completed.
AI-62-3	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.	<p><i>M62.01 (Disposition of ballot comments and progression of 4th edition):</i> WG2 accepts the disposition of ballot comments on DIS 4th edition in document N4564. The following significant changes are noted:</p> <p>f. Addition of 12399 CUNEIFORM SIGN U U, with its glyph from document N4493, to the 'Cuneiform' block.</p> <p>g. Shortening the block 'LATIN EXTENDED-E' to end at AB6F (from current ABBF), and adjusting the block description and definition of collection 165 LATIN EXTENDED-E accordingly.</p> <p>h. Changing the name for 2B81 in the 'Miscellaneous Symbols and Arrows' block to: 'UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS OF DOWNWARDS TRIANGLE-HEADED ARROW', from: 'UPWARDS TRIANGLE-HEADED ARROW LEFTWARDS DOWNWARDS OF TRIANGLE-HEADED ARROW'.</p> <p>i. Change the source reference for CJK Extension C ideograph 2A92F from GZJW-00827 to GCY-0665.03 along with change in the glyph, based on document N4558.</p> <p>j. Siddham changes:</p> <ul style="list-style-type: none"> Moving four SIDDHAM characters from 115E0-115E3 to 115D8-115DB with the following new names: (old 115E0) 115D8 SIDDHAM LETTER THREE-CIRCLE ALTERNATE I (old 115E1) 115D9 SIDDHAM LETTER TWO-CIRCLE ALTERNATE I (old 115E2) 115DA SIDDHAM LETTER TWO-CIRCLE ALTERNATE II (old 115E3) 115DB SIDDHAM LETTER ALTERNATE U Moving two 'Siddham' letter variants at 115E4 and 115E5 from the 4th edition into Amendment 1 for final technical review, with the following new names and code positions: (old 115E4) 115DC SIDDHAM VOWEL SIGN ALTERNATE U (old 115E5) 115DD SIDDHAM VOWEL SIGN ALTERNATE UU 	
b.	<p><i>M62.02 (Additional changes in 4th edition):</i> WG2 accepts the following additional changes to the 4th edition:</p> <p>e. Addition of 20BD RUBLE SIGN with its glyph as shown in N4529 in the 'Currency Symbols' block.</p> <p>f. Capture annotation recommendations in the Siddham ad hoc report in document N4560.</p> <p>g. Insert ", character name aliases" after "For character names" in the second paragraph in 'Clause 24.5.4 Determining uniqueness'.</p> <p>h. Add five Manichaeian Standardized Variation Sequences, 10AC5 FE00, 10AC6 FE00, 10AD6 FE00, 10AD7 FE00, and 10AE1 FE00, based on documents N4029 and N4546.</p>	
c.	<p><i>M62.03 (Progression of 4th edition):</i> WG2 instructs its project editor to prepare and to forward the final text of the 4th edition of the standard, which will include the changes arising from resolution M62.01 and M62.02 above, along with the final disposition of comments (document N4564) to the SC2 secretariat for processing as an FDIS ballot. The code charts for additions in the 4th edition will be in document N4571. The target starting dates are unchanged: FDIS 2014-03.</p>	Items a to c, completed; see documents N4564 and N4571 (FDIS Delta charts)
d.	<p><i>M62.05 (Disposition of ballot comments of PDAM1 to 4th edition):</i> WG2 accepts the disposition of PDAM1 ballot comments in document N4565. The following significant changes are noted:</p> <p>c. Moving of 1137D GRANTHA SIGN COMBINING ANUSVARA ABOVE to 11300 in the 'Grantha' block.</p> <p>d. Deletion of 'Nushu' script from Amendment 1, moving it to a future Amendment, with the following modifications recommended in the Nushu ad hoc report in document N4561:</p> <ul style="list-style-type: none"> Changing to a 'rule based' naming system, such as NUSHU CHARACTER- 	

	<p><codepoint></p> <ul style="list-style-type: none"> Presenting the charts with an improved font, and, Reducing the block range from 1B100-1B2FF to 1B100-1B28F. 	
e.	<p><i>M62.06 (Additional changes in Amendment 1):</i> WG2 accepts the following additional changes in Amendment 1:</p> <p>f. Per recommendation in document N4544, remove Note 2 in sub-clause 23.1 (Note 1 may have to be renumbered to just a 'Note', as a consequence).</p> <p>g. Based on concerns expressed on naming of Tamil fractions in document N4477, move the following Tamil characters that were added in Amendment 1, to a future Amendment for further technical review.</p> <ul style="list-style-type: none"> the six characters 0BDF, 0BFB-0BFF in the 'Tamil' block the 'Tamil Supplement' block 11FC0-11FFF, and the forty-nine characters 11FC0-11FEF and 11FFF in that block. <p>h. Since the Malayalam fractions are somewhat related, move the ten Malayalam fraction characters 0D58-0D5E and 0D76-0D78 that were added in Amendment 1 also to a future Amendment for further technical review.</p> <p>i. Delete 0D4F MALAYALAM LETTER CHILLU LLL from Amendment 1 (and add it to a future Amendment to be considered with other MALAYALM CHILLU letters being accepted for coding).</p> <p>j. Move 1032F OLD ITALIC LETTER TTE from Amendment 1 to a future Amendment for further technical review.</p>	
f.	<p><i>M62.07 (Cherokee additions):</i> WG2 accepts to</p> <p>c. Add the following 7 characters to the Cherokee block:</p> <p>13F5 CHEROKEE LETTER MV 13F8 CHEROKEE SMALL LETTER YE 13F9 CHEROKEE SMALL LETTER YI 13FA CHEROKEE SMALL LETTER YO 13FB CHEROKEE SMALL LETTER YU 13FC CHEROKEE SMALL LETTER YV 13FD CHEROKEE SMALL LETTER MV, with their glyphs from document N4537.</p> <p>d. Create a new block named Cherokee Supplement in the range AB70 to ABBF in the BMP, and populate it with 80 characters in code positions AB70 to ABBF, with their names and glyphs from document N4537.</p>	
g.	<p><i>M62.08 (Progression of Amendment 1 to the 4th edition):</i> WG2 instructs its project editor to prepare and to forward the final text of Amendment 1 to the 4th edition of the standard, which will include the changes arising from resolutions M62.01, and M62.05 to M62.07 above, along with the final disposition of comments (document N4565) to the SC2 secretariat for processing as a DAM ballot. The final code charts will be in document N4568. The target starting dates are modified to: DAM: 2014-04, FDAM: 2014-11.</p>	Items d to f completed; see documents N4565 and N4568 (DAM1 charts).
h.	<p><i>M62.09 (Character additions for a future amendment to the 4th edition):</i> WG2 accepts the following in a future amendment to the 4th edition of the standard:</p> <p>g. Malayalam characters:</p> <p>Add 0D54 MALAYALAM LETTER CHILLU M (with its glyph from document N4540). Add 0D55 MALAYALAM LETTER CHILLU Y (with its glyph from document N4539) Move 0D4F MALAYALAM LETTER CHILLU LLL (moved from Amendment 1 to a future amendment in resolution M62.06 item d, above) to new code position 0D56 Add 0D65 MALAYALAM SIGN PARA (with its glyph from document N4538).</p> <p>h. Add 2E43 DASH WITH LEFT UPTURN (with its glyph from document N4534) in the 'Supplemental Punctuation' block.</p> <p>i. Add Four Arabic characters for Bravanese, in the 'Arabic Extended-A' block: 08B6 ARABIC LETTER BEH WITH SMALL MEEM ABOVE 08B7 ARABIC LETTER PEH WITH SMALL MEEM ABOVE 08B9 ARABIC LETTER REH WITH SMALL NOON ABOVE 08BA ARABIC LETTER YEY WITH TWO DOTS BELOW AND SMALL NOON ABOVE with their glyphs from document N4498.</p> <p>j. Add Three symbols in the 'Miscellaneous Technical' block: 23FB POWER SYMBOL 23FC POWER ON-OFF SYMBOL 23FD POWER ON SYMBOL</p>	

	<p>with their glyphs from document N4535.</p> <p>k. Add 1F32D BLACK WANING CRESCENT MOON in the 'Miscellaneous Symbols and Pictographs' block, with its glyph from document N4535.</p> <p>l. Add A7AE LATIN CAPITAL LETTER SMALL CAPITAL I, in the 'Latin Extended-D' block, with its glyph from document N4549.</p>	
	<p>i. <i>M62.10 (Marchen script)</i>: WG2 accepts to create a new block named 'Marchen' in the range 11C70 to 11CBF, and populate it with 69 characters in code positions 11C70 to 11C8F and 11C92 to 11CB6, with their names and glyphs as shown in document N4491.</p>	
	<p>j. <i>M62.11 (Zanabazar Square script)</i>: WG2 accepts to create a new block named 'Zanabazar Square' in the range 11A00 to 11A4F, and populate it with 69 characters in code positions 11A00 to 11A44, with their names and glyphs as shown in document N4541. Some of the characters are combining marks.</p>	
	<p>k. <i>M62.12 (Tangut script)</i>: WG2 accepts to create:</p> <p>c. A block named 'Tangut' in the range 17000 to 187EF, and populate the 'Tangut' block with 6125 ideographs in code positions 17001 to 187ED, with the presentation of charts and associated information in a form similar to CJK ideograph charts, following the methodology detailed in document N4543</p> <p>d. A block named Ideographic Symbols and Punctuation in the range 16FE0 to 16FFF, and populate with one character 16FE0 TANGUT REPETITION MARK with their glyphs based on documents N4522 and the charts in document N4525.</p>	
	<p>l. <i>M 2.13 (Addition of sub-clause on presentation of updated ideographic sources)</i>: WG2 accepts the proposed text for the sub-clause 23.2, from document N4544.</p>	
	<p>m. <i>M62.14 (Project subdivision for future second amendment to the 4th edition)</i>: WG2 instructs its convener and project editor to create a project subdivision proposal document (will be document N4570) for creation of a second amendment to ISO/IEC 10646 4th edition, to include the items moved from Amendment 1 in resolution in resolution M62.06, and the items accepted in resolutions M62.09 and M62.13 above. The schedule for the Amendment will be determined by the project editor. WG2 notes that Bhaiksuki script (revised), and Mongolian Birga characters (from document N4542), are some additional candidates for inclusion in the text of Amendment 2.</p>	<p>Items h to m completed. See documents N4570 and N4569 (PDAM2 charts).</p>
AI-62-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
	<p><i>M62.15 (Urgently needed ideographs)</i>: WG2 instructs the IRG to add the missing urgently needed character, identified as serial number 6774, requested by China in document N4508 to the repertoire of CJK Extension F.</p>	<p>Completed (?); see document N4580 collection.</p>
AI-62-5	Ad hoc group on roadmap (Dr. Umamaheswaran)	
	<p>a. To update the Roadmaps with the results from this meeting.</p>	<p>Completed; see document N4617.</p>
AI-62-6	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
	To take note of section 2.1 in document N4544 on Representation of CJK ideograph glyphs; and update the P&P document appropriately.	
	With reference to N4543 Character Name considerations; Michel Suignard; 2014-02-20, to elaborate on character names in the P&P document working with Mr. Michael Everson.	
AI-62-9	All national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
	<p>a. The following documents were introduced at meeting 62 with a request for national body review and feedback to the authors:</p> <p>4488 Preliminary proposal to encode the Adlam script; SEI - Michael Everson; 2013-10-28</p> <p>N4511 IRG PnP Version 6; Lu Qin; 2013-11-22</p> <p>4496 Introducing Lakhum Mossang's Script for Tangsa; SEI - Anshuman Pandey; 2013-11-08</p> <p>4497 Introducing Latsam Khimhun's Script for Tangsa; SEI - Anshuman Pandey; 2013-</p>	

	<p>11-08 N4499 Additional Information on the Eskaya Script of the Philippines; SEI - Anshuman Pandey; 2013-11-08 N4515 Proposal to encode Ranjana script; Devdass Manandhar; 2013-12-31 N4518 Proposal to encode archaic vowel signs O OO for Kannada; Shriramana Sharma; 2013-12-31 N4517 Proposal to encode 0D00 Malayalam Sign Combining Anusvara Above; Shriramana Sharma; 2013-12-30 (Note: Some of the above will be added to the Carried Forward list for next meeting's agenda, if no revised contributions are submitted.)</p>	
b.	N4566 Unicode Liaison Report to WG2; Peter Constable; 2014-02-26	
c.	N4545 SEI Liaison Report to WG2 Feb 2014; Debbie Anderson, SEI – UC Berkeley; 2014-02-13	
d.	<p>Following items are carried forward from earlier meetings - filtered at meeting 62: Scripts, new blocks or large collections (awaiting updated proposals from the authors): Afáka (N4292), Bagam (N4293), Balti 'B' (N4016), Balti s (N3842), Chinese Chess Symbols (N3910), Dhives Akuru (N3848), Diwani Numerals (N4119), Diwani Siyaq Numbers (N4122), English Phonotypic Alphabet (EPA) (N4079), Garay (N4261), Gondi (N4291), Indic Siyaq (N4123), Jenticha (N4028), Jurchen (N4077), Kawi (N4266), Khambu Rai (N4018), Khatt-i Baburi (N4130), Khitan (N3918), Kpelle (N3762), Landa (N3768), Leke (N4438), Loma (N3756), Moon (N4128), Mwangwego (N4323), Nandinagari (N4389), Naxi Dongba (N4043), Nepaalalipi (N4322), Nepal Himalayish (N4347), Newar (N4184), Obsolete Simplified Chinese Ideographs (N3695), Old Yi (N3288), Ottoman Siyaq (N4124), Ottoman Siyaq System Numerals (N4118), Pau Cin Hau Syllabary (N4412), Persian Siyaq (N4125), Pyu (N3874), Raqm Numerals (N4117), Rohingya (N4283), Soyombo (N4414), Tolong Siki (N3811), Tulu (N4025), Woleai (N4146), Zou (N4044),</p>	Noted. Filtered list of items will be in the Carried Forward agenda item for tracking.
e.	<p><i>M62.19 (Future meetings):</i> WG2 endorses the following schedule for future meetings of WG2: Meeting 63 - 2014-09-29/10-03, Colombo, Sri Lanka; (co-located with SC2) Meeting 64 - 2015 (late summer or early fall); looking for host (Russia?) Meeting 65 - 2016; looking for host (USA Tentative)</p>	Noted.

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