



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 65 (revised)
Adobe, San Jose, CA, USA; 2016-09-26/30

SOURCE: V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary
Michel Suignard (michel@suignard.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: 2017-09-25

DISTRIBUTION: SC 2/WG 2 members and Liaison organizations

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ISO
International Organization for Standardization
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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 **N4873**
2017-09-18

Title:	Unconfirmed minutes of WG 2 meeting 65 Adobe, San Jose, CA, USA; 2016-09-26/30
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary Michel Suignard (michel@suignard.com), Convener
Action:	WG 2 members and Liaison organizations
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 members and liaison organizations

1 Opening

Input document:

[4754](#) WG2 Experts list and contact information, meeting 65 WG2 Convener 2016-09-23 (Request from the Convener)

Mr. Michel Suignard, the convener, opened the meeting at 11:30h.

(Welcoming of the experts by the host, explanation of logistics and meeting facilities, and introduction by the attending experts, were done in the JTC 1/SC 2 plenary session that preceded the WG 2 meeting.)

Links to the documents in the agenda document are from [WG2 repository on Unicode site](#), [SC2 livelink repository](#), IRG site (the links will be of the form <http://appsrv.cse.cuhk.edu.hk/%7Eirg/irg/irg46/IRGNxxxxx>) or to [UTC/L2 site](#), as needed.

1.1 Roll call:

Input document:

[4754](#) WG2 Experts list and contact information, meeting 65 WG2 Convener 2016-09-23 (Request from the Convener)

A hardcopy of the WG2 experts list was circulated and attendees were requested to indicate any updates needed.

The following **29** experts and guests accredited by **5** national bodies and **3** liaison organizations were present at different times during the meeting.

Name	Accreditation	Affiliation
Shuichi TASHIRO	.Acting SC 2 Chairman	Information-technology Promotion Agency
Ayuko NAGASAWA	.Acting SC 2 Secretariat	IPSI/ITSCJ
Qin LU	.IRG rapporteur	Hong Kong Polytechnic University
Chui-Hsing CHIU	.TCA (Cat. C Liaison)	Bureau of Standards, Ministry of Economic Affairs
Lin Mei WEI	.TCA (Cat. C Liaison)	Chinese Foundation for Digitization Technology
Suh-Chyin CHUANG	.TCA (Cat. C Liaison)	Bureau of Standards, Ministry of Economic Affairs
Michel SUIGNARD	.WG 2 Convenor; USA	Unicode Inc.
Alain LABONTÉ	Canada	Independent
V.S. (Uma) UMAMAHESWARAN	Canada	IBM Canada
Chaolin PAN	China	Guizhou Minzu University
Ching-Ju (Daisy) LAI	China	SIL International
Jinshi WEI	China	Archives of Sandu County
Liming ZHAO	China	Tsinghua University
Nashunwuritu	China	Inner Mongolia University
Qinjun YAO	China	Shui Scripts Research Center of Libo County
Yingzhe WU	China	Inner Mongolia University
Zhuang CHEN	China	CESI
Michael EVERSON	Ireland	Evertime
Tatsuo KOBAYASHI	Japan	Meiji University
Wataru TAKAGI	Japan	Hitachi Ltd.

Name	Accreditation	Affiliation
Craig CUMMINGS	USA	VMware
Ken LUNDE	USA	Adobe Systems Inc.
Kenneth WHISTLER	USA	Unicode Inc.
Steven LOOMIS	USA	IBM Corporation
Isabelle ZAUGG	USA (Guest)	American University
Miryam KOFMAN	USA (Guest)	IBM Corporation
Ou RILEKE	USA (Guest)	Greyson Translation Service
Deborah ANDERSON	USA, UC Berkeley (Cat. C Liaison)	University of California, Berkeley
Lisa MOORE	USA, Unicode (Cat. A Liaison)	Unicode Inc.

Messrs. Michel Suignard and Dr. Deborah Anderson volunteered to be on the drafting committee assisting Dr. Umamaheswaran, the recording secretary, in drafting the meeting recommendations.

2 Approval of the agenda

Input document:

[4740](#) Agenda - Meeting # 65 WG2 convener 2016-09-19

Mr. Michel Suignard: The tentative agenda is in document [N4740](#). New documents have been added since its last posting.

- There are more documents on Khitan, one on Mongolian and one on Feedback on Cypro-Minoan.
- Mr. Tatsuo Kobayashi: 10.3.2 on Hentaigana. The request from Japan is to include it in PDAM1.
Mr. Michel Suignard: The fact is that it is not in PDAM1 at present. We will address this during the disposition of comments on PDAM1. If there is consensus to add, we will do it at that time.
- Mr. Tatsuo Kobayashi: 10.2.7 on Showen Small Seal script --I would like us not to discuss the Japanese expert's feedback, since the Japanese expert is not at this meeting. I am opposing to have this on the agenda as an expert, not as Japanese national body delegate.

Mr. Michael Everson I would like to discuss the topic.

Mr. Michel Suignard: There is also a response from TCA (document [N4755](#)) to the feedback (document [N4716](#)) from the Japanese expert. We can add that to the agenda. We will keep the item on the agenda. We work on the basis that topics with contributions would be on the agenda. We cannot block its progress based on some expert being unable to attend. I am not claiming that we have made any decision on the topic.

- The following contributions will be reflected in the agenda:
- [N4751](#) on Hieroglyphic based taxonomy
- [N4755](#) Response from TCA to Japanese expert feedback on Shouwen Small Seal script
- [N4760](#) will be preliminary contribution on Proto-Cuneiform.

If there are ad hoc groups, we will modify the agenda as needed. The final agenda will have all the updated entries.

The following ad hoc groups are expected to meet during this meeting.

Dr. Deborah Anderson - volunteered to be the lead.

- Shuishu and Primitive scripts on Tuesday;
- Mongolian and Small Khitan scripts on Wednesday;
- Medieval Punctuation – likely on Thursday;
- Georgian additions – likely on Thursday.

Disposition: The agenda was approved as updated above. 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 [N4740](#). 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 as FYI only, or to be carried forward. The following table of contents reflects the items that were discussed.)

Item Number	Title	Page
1	Opening	2
1.1	Roll call:	2
2	Approval of the agenda	3
3	Approval of minutes of meeting 64	5

Item Number	Title	Page
4	Review action items from previous meeting	5
4.1	Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	5
4.2	Outstanding action items from meeting 62, San Jose, CA, USA; 2014-02-24/28	5
4.3	Outstanding action items from meeting 63, Colombo, Sri Lanka; 2014-09-29/10-03	5
4.4	New action items from meeting 64, Matsue, Shimane, Japan; 2015-10-19/23	6
5	JTC1 and ITTF matters	10
5.1	Notice of publication:	10
6	SC2 matters:	10
6.1	Documents for information	10
6.2	Summary of Voting on 10646: FDAM2 to 4 th edition	10
6.3	Text for DIS of 10646 5th edition	10
7	WG2 matters	10
7.1	10646 5th edition CD.2	10
7.2	Amendment 1 to 10646 5th edition	11
7.2.1	China: Disapproval	11
7.2.2	Ireland: Disapproval	11
7.2.3	Japan: Disapproval	12
7.2.4	Mongolia: Approval with comments	12
7.2.5	UK: Approval with comments	13
7.2.6	USA: Approval with comments	14
7.2.7	Additional Review Comments from the Project Editor:	14
7.3	Roadmap Snapshot	15
7.4	PDAM1.2 draft code chart	15
7.5	Meeting #65 recommendations	15
8	IRG status and reports	16
9	Script contributions related to ballots:	16
9.1	Related to and incorporated into CD.2	16
9.2	Related to and incorporated into PDAM 1	16
9.3	Related to PDAM 1	17
10	Script contributions not related to ballots	17
10.1	Carried Forward	17
10.1.1	Scripts and new blocks	17
10.2	New Scripts or Blocks	17
10.2.1	Additional Georgian characters	17
10.2.2	Cypro-Minoan script	17
10.2.3	Western Cham characters	18
10.2.4	Loma script	18
10.2.5	Small Khitan script	18
10.2.6	Egyptian Hieroglyphs Extension	20
10.2.7	Shuowen Small Seal script	21
10.2.8	Garay script	22
10.2.9	Cher Vang Hmong script	22
10.2.10	Shuishu script	22
10.2.11	Primitive script from SW China	23
10.2.12	Proto-Cuneiform script	24
10.3	Additions to Existing Scripts or Blocks	24
10.3.1	Medievalist punctuation characters	24
10.3.2	Hentaigana	25
10.3.3	Symbols for Go game notation	26
10.3.4	Additional Symbols for Astrology	26
10.3.5	Gurmukhi Abbreviation Sign	26
10.3.6	Future Additions to ISO/IEC 10646 (May and August 2016)	26
10.3.7	Indalo symbol	26
10.3.8	Ichthys symbol	27
10.3.9	Four half star symbols	27
10.3.10	Xiangqi game symbols	28
10.3.11	Additional circled numbers	28
10.3.12	Mongolian revision	29
10.4	Miscellaneous Proposals	29
10.4.1	Proposal to add a new collection named "Japanese core Kanji" in Annex A (N4744)	29
11	Defect reports	30

Item Number	Title	Page
11.1	Representative glyph and annotation additions for U+033B (L2/16-178)	30
12	Liaison Reports	30
12.1	Unicode Consortium	30
12.2	SEI	31
12.3	Request from SAT Daizokyo for Establishing a Category C Liaison with SC 2/WG 2	31
13	Future meetings:	31
14	Closing	31
14.1	Approval of Recommendations of meeting 65	31
14.2	Appreciation	31
14.3	Adjournment	31
15	Action items	31
15.1	Outstanding action items from meeting 60, Chiang Mai, Thailand, 2012-10-22/27	32
15.2	Outstanding action items from meeting 62, San Jose, CA, USA; 2014-02-24/28	32
15.3	Outstanding action items from meeting 63, Colombo, Sri Lanka; 2014-09-29/10-03	33
15.4	Outstanding action items from meeting 64, Matsue, Shimane, Japan; 2015-10-19/23	33
15.5	New action items from meeting 65, San Jose, CA, USA; 2016-09-26/30	33

3 Approval of minutes of meeting 64

Input document:

[4739](#) Unconfirmed minutes of WG 2 meeting 64 Kunibiki Messe, Matsue, Shimane, Japan, 2015-10-19/23; V.S. Umamaheswaran; 2016-08-31

Dr. Umamaheswaran: No comments have been received so far. Experts are requested to view and pass on any comments to Dr. Umamaheswaran before the end of the meeting.

Disposition: Adopt the minutes as presented.

Action item: Convener to send the adopted minutes for distribution to SC2.

4 Review action items from previous meeting

Input document:

[4739-AI](#) Action Items from WG 2 meeting 64; V.S. Umamaheswaran; 2016-08-31

Dr. Umamaheswaran reviewed and updated the action items from the previous meetings. The resulting updated status for each item is shown below. Of the **25** action items that were reviewed, **7** items are carried forward as 'in progress', and **18** items have been either 'noted' or 'completed'.

4.1 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 60 (with any corrections noted in section 3 in the minutes of meeting 61 in document N4403).	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.

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

Item	Assigned to / action (reference resolutions in document N4554 , and unconfirmed minutes in document N4553 for meeting 62 (with any corrections noted in section 3 in the minutes of meeting 63 in document N4603).	Status
AI-62-6	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	To take note of section 2.1 in document N4544 on Representation of CJK ideograph glyphs, and update the P&P document appropriately.	In progress.
b.	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.	In progress.

4.3 Outstanding action items from meeting 63, Colombo, Sri Lanka; 2014-09-29/10-03

Item	Assigned to / action (Reference resolutions in document N4604 , and unconfirmed minutes in document N4603 for meeting 63 (with any corrections noted in section 3 in the minutes of meeting 64 in document N47xx).	Status
AI-63-6	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	To take note of section 2.1 in document N4620 on Representation of CJK ideograph glyphs, and update the P&P document appropriately.	In progress.
AI-63-7	Experts from China (Chen Zhuang), UK (Andrew West), Japan (Toshiya Suzuki), Ireland (Mr.	

	Michael Everson)	
	To take note of and act on the following items.	
a.	M63.15 (Khitan Large script): WG2 invites the authors of document N4631 to revise their proposal on the Khitan Large script taking into account the feedback summarized in the ad hoc report document N4642 , working with other experts interested in this script.	In progress.
b.	M63.16 (Shuishu script): WG2 invites the authors of document N4638 to revise their proposal on the Shuishu script taking into account the feedback received at this meeting, working with other experts interested in this script.	Completed; see document N4758 .
c.	M63.17 (Naxi Dongba script): WG2 invites the authors of document N4633 to revise their proposal on the Naxi Dongba script taking into account the feedback received at this meeting, working with other experts interested in this script.	In progress.

4.4 New action items from meeting 64, Matsue, Shimane, Japan; 2015-10-19/23

Item	Assigned to / action (Reference resolutions in document N4701 , and unconfirmed minutes in document N4739 for meeting 64 - this document you are reading).	Status
AI-64-1	Recording Secretary - Dr. V.S. UMaMaheswaran	
a.	To finalize the document N4701 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N4701 .
b.	To finalize the document N4739 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N4739 .
AI-64-2	Convener - Mr. Michel Suignard	
	To take note of and act upon the following items:	
a.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list of documents under AI-64-7, items b and c below.)	Completed.
AI-64-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
	To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a.	<i>M64.03 (Disposition of ballot comments of DAM 2 to the 4th edition):</i> WG2 recommends that SC2 accepts the disposition of DAM 2 ballot comments in document N4691 . The following significant changes are noted: <ul style="list-style-type: none"> a. The Tamil Supplement block (11FC0...11FFF, 55 characters) is moved out of Amendment 2 and inserted into the CD for 5th edition. b. In the Tangut block, 186A2 is removed; two Tangut components (shown in N4667) are added at 18817 and 18818; and various other glyph changes, re-orderings and source reference changes are made. c. 2828 CJK Ideographs J-Sources were updated. d. 08E2 is renamed to ARABIC DISPUTED END OF AYAH. 	Completed; see documents N4691 and N4694 .
b.	<i>M64.04 (Progression of Amendment 2 to the 4th edition):</i> WG2 recommends that its project editor prepares the final text of Amendment 2 to the 4th edition of the standard, which will include the changes arising from recommendations M64.03 above, along with the final disposition of comments (document N4691); and forward it to the SC2 secretariat for processing as an FDAM ballot. The final code charts are in document N4694 . The target starting date is modified to FDAM: 2015-12.	Completed. FDAM2 document SC2 N4447 (pw protected).
c.	<i>M64.05 (Disposition of ballot comments of CD 5th edition):</i> WG2 recommends that SC2 accepts the disposition of CD (5th edition) ballot comments in document N4698 . The following significant changes are noted: <ul style="list-style-type: none"> a. The Tamil Supplement block (11FC0...11FFF, 55 characters) is moved out of Amendment 2 and inserted into the CD for 5th edition. b. Old Italic (based on document N4669): Added 1032D;OLD ITALIC LETTER YE Added 1032E;OLD ITALIC LETTER NORTHERN TSE, and, Changed the name of 1032F to OLD ITALIC LETTER SOUTHERN TSE. c. Removed CJK Unified Ideograph 2D138 (USAT-00061) from CJK Extension F; it is unified with 20991. d. Removed CJK Unified Ideograph 2CEF1 (JMJ-056848) from CJK Extension F. e. Added in Bopomofo block 312E BOPOMOFO LETTER O WITH DOT ABOVE with an annotation that it is BOPOMOFO LETTER E EARLY FORM (based on document N4695). 	Completed; see document N4698 .

	<p>f. Inserted the following 23 ideographs into CJK Extension F: UTC-01201 from document N4678, JMJ-068048 and JMJ-068049 from document N4680, and, 20 new ideographs from Macau SAR from document N4679.</p> <p>g. Removed 1F931 HERO, 1F932 CRIMINAL and 1F941 MAGIC WAND.</p> <p>h. Entire Nushu block is reordered and moved to new range 1B170...1B2FF, based on Nushu ad hoc report in document N4693 and the accompanying revised chart in document N4697. Several glyphs were changed.</p> <p>i. Shape of 11A33 ZANABAZAR SQUARE FINAL CONSONANT MARK is changed to a diamond shape.</p> <p>j. Several Zanabazar Square character names were corrected as proposed by UK ballot comments and the ad hoc report on Mongolian scripts (N4699).</p> <p>k. Several Soyombo character names were corrected or changed, one character (SOYOMBO TERMINAL MARK-3) was deleted, and three code positions were reserved for future encoding, per ad hoc report and attached revised code chart in document N4699, and in response to UK ballot comments.</p> <p>(See document N4698 for full list of dispositions and associated changes.)</p>	
<p>d.</p>	<p>M64.06 (Additional changes in 5th edition): WG2 recommends that SC2 accepts the following additional changes in the CD for 5th edition of the standard:</p> <p>a. Additions</p> <ul style="list-style-type: none"> - Add following two name aliases (based on document N4654 item 10): 2B7A LEFTWARDS TRIANGLE-HEADED ARROW WITH DOUBLE VERTICAL STROKE 2B7C RIGHTWARDS TRIANGLE-HEADED ARROW WITH DOUBLE VERTICAL STROKE. - Add the following 15 emoji characters with their glyphs based on document L2/15-195R2 and http://www.unicode.org/emoji/charts/emoji-candidates.html (as of 2015-10-23): 1F927 SNEEZING FACE 1F939 JUGGLING 1F941 DRUM WITH DRUMSTICKS; 1F943 TUMBLER GLASS 1F944 SPOON 1F956 BAGUETTE BREAD 1F957 GREEN SALAD; 1F958 SHALLOW PAN OF FOOD 1F959 STUFFED FLATBREAD 1F98B BUTTERFLY, and, 1F98C DEER (in the Supplemental Symbols and Pictographs block) and, 1F6D2 SHOPPING TROLLEY (in the Transport and Map Symbols block). Add the following 14 sports-related emoji characters with appropriate glyphs from document L2/15-196R4 and http://www.unicode.org/emoji/charts/emoji-candidates.html (as of 2015-10-23): 1F6F6 CANOE (in the Transport and Map Symbols block), and, 1F938 PERSON DOING CARTWHEEL 1F93A FENCER 1F93B MODERN PENTATHLON; 1F93C WRESTLERS 1F93D WATER POLO 1F93E HANDBALL 1F945 GOAL NET; 1F946 RIFLE 1F947 FIRST PLACE MEDAL 1F948 SECOND PLACE MEDAL 1F949 THIRD PLACE MEDAL, and, 1F94A BOXING GLOVE, and, 1F94B MARTIAL ARTS UNIFORM (in the Supplemental Symbols and Pictographs block) - Add the following 21 Typicon symbols with their glyphs based on document L2/15-173R2: <ul style="list-style-type: none"> i. In the Combining Diacritical Marks Supplement block: 1DF6 COMBINING KAVYKA ABOVE RIGHT 	<p>Completed; see document N4702. Incorporated in CD-2 of 5th ed.</p>

	<p>1DF7 COMBINING KAVYKA ABOVE LEFT 1DF8 COMBINING DOT ABOVE LEFT 1DF9 COMBINING WIDE INVERTED BRIDGE BELOW ii. In the Supplemental Punctuation block: 2E45 INVERTED LOW KAVYKA 2E46 INVERTED LOW KAVYKA WITH KAVYKA ABOVE 2E47 LOW KAVYKA 2E48 LOW KAVYKA WITH DOT 2E49 DOUBLE STACKED COMMA iii. In the Supplemental Symbols and Pictographs block: 1F900 CIRCLED CROSS FORMEE WITH FOUR DOTS 1F901 CIRCLED CROSS FORMEE WITH TWO DOTS 1F902 CIRCLED CROSS FORMEE 1F903 LEFT HALF CIRCLE WITH FOUR DOTS 1F904 LEFT HALF CIRCLE WITH THREE DOTS 1F905 LEFT HALF CIRCLE WITH TWO DOTS 1F906 LEFT HALF CIRCLE WITH DOT 1F907 LEFT HALF CIRCLE 1F908 DOWNWARD FACING HOOK 1F909 DOWNWARD FACING NOTCHED HOOK 1F90A DOWNWARD FACING HOOK WITH DOT 1F90B DOWNWARD FACING NOTCHED HOOK WITH DOT.</p> <ul style="list-style-type: none"> - Add 09FD BENGALI ABBREVIATION SIGN from document L2/15-172R. - Add 09FC BENGALI LETTER VEDIC ANUSVARA from document L2/15-161R. - Add 1CF7 VEDIC SIGN ATIKRAMA (a combining character) from document L2/15-160R. - Add 1F6D3 STUPA and 1F6D4 PAGODA from document N4661 in the Transport and Map Symbols block. - Add the following 19 TV symbols with appropriate glyphs from document N4671: <ul style="list-style-type: none"> i. In the Enclosed Ideographic Supplement block: 1F23B SQUARED CJK UNIFIED IDEOGRAPH-914D ii. In the Enclosed Alphanumeric Supplement block: 1F19B SQUARED THREE D 1F19C SQUARED SECOND SCREEN 1F19D SQUARED TWO K 1F19E SQUARED FOUR K 1F19F SQUARED EIGHT K 1F1A0 SQUARED FIVE POINT ONE 1F1A1 SQUARED SEVEN POINT ONE 1F1A2 SQUARED TWENTY-TWO POINT TWO 1F1A3 SQUARED SIXTY P 1F1A4 SQUARED ONE HUNDRED TWENTY P 1F1A5 SQUARED LATIN SMALL LETTER D 1F1A6 SQUARED HC 1F1A7 SQUARED HDR 1F1A8 SQUARED HI-RES 1F1A9 SQUARED LOSSLESS 1F1AA SQUARED SHV 1F1AB SQUARED UHD, and, 1F1AC SQUARED VOD <p>b. Changes</p> <ul style="list-style-type: none"> - Change the status of Radical/Stroke information associated with ideographs from 'Informative' to 'normative' (based on document N4692); the project editor is to make the appropriate changes to the text of the standard. - Accept the proposed glyph changes to the ideographs at 2B5AA, 2B9D7, 2BF4A and 2C88D in document N4682 (subject to verification by IRG). 	
<p>e.</p>	<p><i>M64.07 (Progression of 5th edition of 10646):</i> WG2 recommends that its project editor prepares a revised text of ISO/IEC 10646 (5th edition), which will include the changes arising from recommendations M64.05 to M64.06 above, along with the disposition of ballot comments (document N4698); and forward it to the SC2 secretariat for processing as a second CD ballot. The delta code charts will be in document N4702. The target starting dates are modified to: CD2 2015-12 DIS: 2016-04, FDIS: 2016-11.</p>	<p>Completed; see CD-2 5th ed. text in document SC2 N4446. (Copy and paste Hyperlink in a</p>

	WG2 notes that CJK Extension F2 is a candidate for inclusion in the CD ballot, based on next IRG meeting recommendations.	browser; password protected).
f.	<i>M64.08 (Project subdivision for Amendment 1 to the 5th edition of the standard):</i> Anticipating the need for encoding additional scripts and characters that will have mature proposals prior to the next SC2 meeting, WG2 recommends to its convener and project editor to generate a new project subdivision proposal for the first amendment to the 5th edition of the standard, and submit it to SC2 for approval. WG2 notes that adding Japanese Hentaigana characters is a candidate for inclusion in Amendment 1. Tentative target starting dates for Amendment 1 to the 5th edition are: PDAM1 2016-04, DAM1 2016-11.	Completed; see SC2 N4444 (password protected).
AI-64-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
a.	<i>M64.12 (Future meetings):</i> WG2 endorses the following schedule for future meetings: IRG Meeting 46 - 2016-05-23/27, Beijing, China IRG Meeting 47 - 2016-10-17/21, Seoul, Korea; (backup Japan)	Completed.
b.	<i>M64.11 (Review of CJK Unification Rules):</i> WG2 recommends that IRG reviews its CJK unification rules to minimize the number of glyph variants that are coded as separate characters.	Completed
c.	<i>M64.06 (Additional changes in 5th edition):</i> WG2 recommends that SC2 accepts the following additional changes in the CD for 5th edition of the standard: ... Under item b. Changes: Accept the proposed glyph changes to the ideographs at 2B5AA, 2B9D7, 2BF4A and 2C88D in (document N4682 (subject to verification by IRG)).	Completed. The IRG Editor had missed ONE ideograph. (See IRG Report). It was later found to be correct in the 5 th ed.
AI-64-5	Ad hoc group on roadmap (Dr. Umamaheswaran)	
a.	To update the Roadmaps with the results from this meeting.	Completed. See SC2 standing document SD1 SC2 Roadmaps .
AI-64-6	Experts from China (Chen Zhuang), UK (Andrew West), Japan (Toshiya Suzuki), Ireland (Mr. Michael Everson)	
	To take note of and act on the following items.	
a.	<i>M64.09 (Shuishu script):</i> WG2 invites the authors of document N4696 to revise their proposal on the Shuishu script taking into account the feedback received at this meeting, working with other experts interested in this script.	Completed. See new document N4758.
b.	<i>M64.10 (Small Seal script):</i> WG2 invites the authors of document N4688 to revise their proposal on the Small Seal script taking into account the feedback received at this meeting, working with other experts interested in this script.	In progress. See agenda item 10.2.7 for feedbacks.
AI-64-7	Experts from all national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
a.	<i>M64.12 (Future meetings):</i> WG2 endorses the following schedule for future meetings: WG2 Meeting 65 - 2016-09-26/30, San José, CA, USA (co-located with SC2) WG2 Meeting 66 - Late 2017-09 (tentative), China (pending confirmation) (co-located with SC2) WG2 Meeting 67 - 2018-09 (Looking for host).	Noted.
b.	Following items are carried forward from earlier meetings - filtered at meeting 64: Scripts, new blocks or large collections (awaiting updated proposals from the authors): Afáka (N4292); Bagam (N4293); Balti 'B' (N4016); Balti scripts (N3842); Chinese Chess Symbols (N3910); Dhives Akuru (N3848); Diwani Siyaq Numbers (N4122); English Phonotypic Alphabet (EPA) (N4079); Eskaya (N4499); Garay (N4261); Indic Siyaq (N4123); Jenticha (N4028); Jurchen (N4077); Kawi (N4266); Khambu Rai (N4018); Khatt-i Baburi (N4130); Khitan (N4631); Kpelle (N3762); Landa (N3768); Leke (N4438); Loma (N3756); Moon (N4128); Mwangwego (N4323); Nandinagari (N4389); Naxi Dongba (N4633); Obsolete Simplified Chinese Ideographs (N3695); Old Yi (N3288); Ottoman Siyaq (N4124); Pau Cin Hau Syllabary (N4412); Persian Siyaq (N4125); Pyu (N3874); Ranjana (N4515); Rohingya (N4283); Tangsa Latsam Khimhun (N4497); Tangsa Lakhum Mossang script (N4496); Tulong Siki (N3811); Tulu (N4025); Woleai (N4146); Zou (N4044).	Completed. New contributions for: Indic Siyaq (L2/15-121); Khitan (N4738); Loma (N4735) Deleted in agenda item 10.1.1: Tangsa Latsam Khimhun, Tangsa Lakhum Mossang

		scripts. New entry in agenda 10.1.1: Mandombe (L2/16-077R). Note: Naxi Dongba has a supplement document N4633 .
c.	The following documents (that were flagged for experts' feedback at meeting 64): 4688 Proposal to encode Small Seal Script in UCS (zip file with Proposal and associated files); TCA and China; 2015-10-20 4696 Preliminary Proposal for encoding Shuishu in the SMP of the UCS (zip file with Proposal and presentation deck); China; 2015-10-21 4668 Preliminary proposal to encode the Eebee Hmong script in the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project); 2015-07-27 4687 Request for comment on encoding Oracle Bone Script (zip file with Proposal and associated files); TCA and China; 2015-10-21 (See also documents under action AI-64-7-b above.)	Completed. Agenda item 10.1.1 has the filtered carry forward list.

5 JTC1 and ITTF matters

5.1 Notice of publication:

Input document:

[SC2/N4461](#) Notice of publication: ISO/IEC 10646 2014/Amd.2 Bhaiksuki, Marchen, Tangut and other characters; SC2 secretariat; 2016-04-25

The above document was for information of WG2 experts. Its content is in accord with Unicode 9.0

6 SC2 matters:

6.1 Documents for information

Input document:

[SC2/N4447](#) Text for ISO/IEC 10646: 2014/FDAM 2, Information technology -- Universal Coded Character Set (UCS) -- AMENDMENT 2: Bhaiksuki, Marchen, Tangut, and other characters; Project editor; 2016-01-08.

The above documents were for information of WG2 experts, and were not discussed.

6.2 Summary of Voting on 10646: FDAM2 to 4th edition

Input document:

[SC2/N4456](#) Summary of Voting on ISO/IEC 10646:2014/FDAM 2, Information technology -- Universal Coded Character Set (UCS) -- Amendment 2: Bhaiksuki, Marchen, Tangut, and other characters; SC2 Secretariat; 2016-03-22

Out of the 39 responses to the ballot, 17 (15 P-members and 2 O-members) had voted positive, and 22 (18 P-members and 4 O-members) had abstained. There were no Negative votes. The FDAM2 text was approved (and has been published - see item 5.1 above).

6.3 Text for DIS of 10646 5th edition

Input documents:

[SC2/N4469](#) Text for 10646 5th edition; SC2 Secretariat; 2016-06-01

Mr. Michel Suignard: The DIS ballot on the 5th edition is in progress. I have received some feedback, mostly outstanding from Amd. 1. CJK Ext F is of concern. It is a complicated script to deal with. If there are any big changes coming, I need to know ahead of time from experts.

7 WG2 matters

7.1 10646 5th edition CD.2

Input documents:

[SC2/N4446](#) Text for CD Ballot - ISO/IEC CD 10646.2 (Ed. 5), Information technology – Universal Coded Character Set (UCS); Project Editor; 2015-12-15.

[SC2/N4454](#) Summary of Voting on ISO/IEC CD 10646.2 - SC 2 N 4446, Information technology -- Universal Coded Character Set (UCS); SC2 Secretariat; 2016-03-02

[N4713](#) Draft disposition of comments on ISO/IEC CD.2 10646 5th edition; Michel Suignard, Project Editor; 2016-04-23

Above documents are all for information of WG2 experts. These relate to the progression of work since last WG2 meeting. DIS ballot of 5th edition of 10646 is in progress.

Relevant Observation:

M65.01 (Additions in 5th edition since meeting 64): WG2 notes that document N4728 lists 8447 character additions over and above 4th edition plus its two amendments, as sent out for DIS ballot. This is an increase in the count from 4833 noted as part of CD for 5th edition at the end of meeting 64, an increase of 3614 characters.

7.2 Amendment 1 to 10646 5th edition

Input documents:

SC2/N4472 Text for PDAM ballot - ISO/IEC 10646 (Ed. 5th)/PDAM 1, Information technology -- Universal Coded Character Set (UCS) -- Amendment 1; Project Editor; 2016-09-12

SC2/N4487 Summary of Voting on ISO/IEC 10646 (Ed.5)/PDAM 1, Information technology --Universal Coded Character Set (UCS) -- Amendment 1; SC2 Secretariat; 2016-09-12

4717 Proposal to encode one Bopomofo letter; Andrew West; 2016-04-21

4732 (SC2/N4476) Revised proposal for Hentaigana; Japan; 2016-07-14

4756 Feedback on N4717 for Bopomofo letter NN; TCA; 2016-09-22

L2/15-004 Proposal to Encode the Soyombo Script (WG2 N4655; revised); Anshuman Pandey; 2015-12-07

L2/15-249 Summary of Ad Hoc Meeting on Two Historical Scripts from Mongolia (Tokyo, Japan) (revised); Deborah Anderson; 2015-12-23

L2/15-337 Proposal to Encode the Zanabazar Square Script (replaces L2/14-024); Anshuman Pandey; 2015-12-31

L2/16-016 Proposal to encode the Soyombo mark PLUTA; Anshuman Pandey; 2016-01-19

4750 Draft disposition comments PDAM1; Michel Suignard, Project Editor; 2016-09-23

Output document:

N4767 Disposition of comments PDAM1; Michel Suignard, Project Editor; 2016-09-28

The summary of voting document shows that there were 7 Approvals, 3 Approval with Comments (Mongolia, UK and USA), 3 Disapprovals (China, Ireland and Japan), and 11 Abstentions.

Mr. Michel Suignard: The draft disposition of comments contains the comments received from Ireland, Japan, UK and the US, along with their proposed dispositions. (These are discussed below.)

7.2.1 China: Disapproval

T1. Bopomofo letter U+312F LETTER nn

China suggest that the glyph used for Bopomofo letter NN U+312F needs to be discussed; different sources show different glyphs.

Mr. Michel Suignard: The proposed glyph in the encoding proposal document N4717 seems to make sense. (The disposition of comments document quotes the rationale). The middle n character (from Figures 1, 2 and 3 in document N4717) is the one in question. Document N4756 from TCA suggests that the Vertical Bar connects.

Mr. Michael Everson: Preference was all the Bopomofo be in a different style.

Mr. Michel Suignard: Not any more. Andrew provided the glyphs to me.

Disposition: We accept this in principle. Change the glyph to be one with connected vertical bar.

T2. Bopomofo letter U+312E LETTER O WITH DOT ABOVE

China indicates that Bopomofo letter e U+312E is a combining character (O with dot above), and detailed information will be submitted to SC2/WG2 later.

Mr. Michael Suignard: We moved this character to Bopomofo based on discussion of input from Andrew West at the last meeting. I have not received additional information from China. This character was in 10646 5th edition (under DIS ballot) and not in Amendment 1. Using a combining sequence associating a Bopomofo with a combining character typically used in the context of Latin/Greek/Cyrillic may be unwise.

Disposition: Out of scope for Amendment 1 ballot. China is invited to comment on the DIS ballot instead.

Mr. Chen Zhuang: China withdraws this comment.

7.2.2 Ireland: Disapproval

T1. Page 47, Row 1343: Egyptian Hieroglyphs Extended-A

In order to facilitate further study of “ligature” requirements and implementation for Egyptian Hieroglyphs, Ireland requests that the character 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER be removed, that the characters at 13431..13432 be moved up to 13430..13431. Ireland also recommends renaming column 13430 to be a new block “Egyptian formatting characters”. Even if a new block is not created, Ireland requests that the non-format characters for Egyptian Hieroglyphs Extended-A block begin at 13440. Ireland requests that the glyphs accompanying this comment be used for 13430...13431.

See also comment T3 from UK and TE3 from US.

Mr. Michel Suignard: 3 format characters for quadrat layouts were proposed. They were feedback through UTC on this script on earlier PDAM1 ballot. There was consensus to remove the first of the accepted characters. The UK and US are also asking to remove 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER. Whether the code position should be reclaimed and the glyphs for the remaining characters changed is open to discussion. Concerning the block name, to be consistent with other blocks with similar code points a name like 'Egyptian Hieroglyphs Format Controls' may make more sense.

Discussion:

- a. Dr. Ken Whistler: There is some more discussion on these characters. There is consensus on the first character being NOT needed.
- b. Mr. Michel Suignard: Co-location of the remaining two characters in question is also unstable. More discussion is needed. One column of this block could be reserved for Format characters.
- c. Dr. Umamaheswaran: Will it affect the roadmaps?
- d. Mr. Michael Everson: You may have already done this.
- e. Mr. Michel Suignard: Due to ongoing discussions, the remaining characters and the entire block may not survive the next ballot.
- f. Mr. Michael Everson: In the Cambridge meeting there were about 9 of these.
- g. Dr. Ken Whistler: Going down the road of having letters inside the square boxes, do we have a complete set of these?

Disposition: Accept in principle. Use glyphs similar to Ireland's proposal. Create a new block named Egyptian Hieroglyphs Format Controls.

Action item: Roadmap ad hoc to take note of and update the roadmap -- 'Egyptian Hieroglyphs Extended-A moves right by 1 column'.

T2. Page 54, Row 1F10: Enclosed Alphanumeric Supplement

Ireland requests to change the name of 1F12F COPYLEFT SIGN to REVERSED COPYRIGHT SIGN, citing potential issues with translating the name.

Mr. Michel Suignard: I would prefer to leave the name as is. It is widely accepted in English (see for example, <https://en.wikipedia.org/wiki/Copyleft>).

Mr. Michael Everson: It is impossible to translate these. It would be desirable to make it translatable. 'Reversed Copyright Sign' would be more translatable.

Disposition: Not accepted. Retain the name COPYLEFT.

E1. Page 13, Row 2B0: Miscellaneous Symbols and Arrows.

Disposition: Accept in principle. The editor has received a new font that should fix the issue.

Ireland requests correcting the winding errors in the glyphs in the ballot.

E2. Page 51, Row 13D6: Counting Rod Numerals.

Ireland requests to correct the glyph for 1D378 to fix the winding error and to have five rather than six strokes.

See also comment T6 from UK and TE1 from US.

Disposition: Accepted. The editor has received a new font that should fix the issue.

7.2.3 Japan: Disapproval

T1. Hentaigana

Japan requests to add Hentaigana characters to Amendment 1, referring to the revised proposal (document N4732), pointing out that Hentaigana was a candidate for inclusion in Amd.1 in WG2 recommendation M64.08.

Mr. Michel Suignard: This was a timing issue. The proposal had several rounds of discussion with organizations such as the UTC, and the last updated version of the proposal was available late June 2016. It was too late to be included in PDAM 1. We will discuss this proposal at this meeting (see discussion in section 10.3.2 on page 25). Draft charts are ready pending acceptance at this meeting. It can be included in PDAM1.2.

Disposition: Accepted in principle.

7.2.4 Mongolia: Approval with comments

T1. Page 38, 41 Zanabazar Square and Soyombo

Mongolia requests that additional space be allocated in these script blocks to be able to encode more Soyombo and Square script characters found in the source of literary works in the future.

Mr. Michel Suignard: There is no need to provide additional space right now. There are still unallocated code points (8 in Zanabazar Square and 15 in Soyombo). We will accept this in principle. Once a block is allocated, its size cannot be changed. We can always add a supplement or extension block when there is a need to encode additional attested characters.

Disposition: Accepted in principle. This would also apply if any Digits were encoded (see Mongolian comment T.2 below).

T2. Page 38, 41 Zanabazar Square and Soyombo

Mongolia proposes to add old Mongolian 1-10 digit numbers in Soyombo and square scripts.

Mr. Michel Suignard: Documents [L2/15-337](#) (on Zanabazar Square script) and [L2/15-004](#) (on Soyombo), which were used as the base for encoding these scripts, indicate that use of Digits in these scripts is NOT attested.

Disposition: Not accepted. Mongolia is invited to make a case for encoding the digits.

T3. Page 38, 38 Zanabazar Square

Mongolia proposes to encode Mongolian diphthongs AI, UI, OU and OI in the script.

Mr. Michel Suignard: These diphthongs can be represented by sequences of proposed characters as explained in [L2/15-215](#), page 5 section 4.4.1 Diphthongs, shown here. Therefore, there seems to be no need to encode them separately.

Disposition: Not accepted.

T4. Page 41, code point U+11A9D SOYOMBO MARK PLUTA

Mongolia proposes the glyph, proportion and trait of 11A9D Soyombo Mark Pluta be changed (according to attachment to their ballot comment).

Mr. Michel Suignard: Document [L2/16-016](#) shows the same picture page 4. The request could be accommodated with an updated font.

Disposition: Accept in principle. Will change the glyph. Mr. Anshuman Pandey will provide the font to the editor.

T5. Page 38 Zanabazar Square, new characters

Mongolia agreed with 11A45, 11A46 and 11A47 included in Amendment 1.

Disposition: Noted.

T6. Page 38 Zanabazar Square, additional changes

Mongolia suggests that their suggestions for correcting character names, transliterations and encoding order of Zanabazar Square script (11A2D, 11A2F, page 38) at Oct 2015 meeting in Tokyo have not been accommodated.

Mr. Michel Suignard: These comments should be made for the DIS ballot on the 5th edition where these characters were included. The ad hoc report from Tokyo (in document [L2/15-249R](#)) indicates that there was no consensus on the script name change or names of the three characters 11A20, 11A2D and 11A2E, and on an additional character to the set.

Disposition: Noted. No changes to the Amendment text.

T6. Page 41 Soyombo, additional changes

Mongolia proposes that topic of combing vowel and syllable and the writing order for Sanskrit transcriptions in vertical writing of Soyombo scripts should be considered as part of encoding the script.

Disposition: Noted. Mongolia is invited to prepare a contribution on the topic for WG2 consideration.

7.2.5 UK: Approval with comments

E1. Sub-clause 33, Bopomofo

Change the subheading for 312D...312F to “Miscellaneous additions” from “Miscellaneous addition”.

Disposition: Accepted.

E2. Sub-clause 33, Bopomofo

The UK proposes changing the note for 312F Bopomofo Letter Nn to “syllabic nasal”.

Disposition: Accepted.

T3. Sub-clause 33, Egyptian Hieroglyphs Extended-A

The UK requests removal of 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER pointing out that there is no consensus among Egyptologists on whether the ligature joiner should be encoded or not.

See also comment T1 from Ireland and TE3 from US.

Disposition: Accepted.

T4. Sub-clause 33, Tangut

The UK requests correcting the radical glyphs for 187F0 and 187F1 to show the correct Tangut radicals (U+18933 and U+1899E respectively).

Disposition: Accepted. The chart production tool issue is now fixed.

T5. Sub-clause 33, Tangut

The UK proposes to update TangutSrc.txt to include the missing five added Tangut ideographs, 187ED...187F1.

Disposition: Accepted. New text will be added in the amendment to point to the file along with the file itself.

T6. Sub-clause 33, Counting Rod Numerals

UK requests correcting the glyph for 1D378 TALLY MARK FIVE to have four vertical strokes only.

See also comments E2 from Ireland and TE1 from US.

Disposition: Accepted. A new font has already been provided to the editor.

E7. Sub-clause 33, Counting Rod Numerals

The UK suggests adding a cross-reference to 6B63 𠄎 for 1D376 IDEOGRAPHIC TALLY MARK FIVE, to indicate that 1D376 is based on the CJK ideograph 6B63.

Disposition: Accepted.

E8. Sub-clause 33, Supplemental Symbols and Pictographs

The UK requests adding informative aliases potsticker, jiaozi, gyoza, and momo, for 1F95F DUMPLING, to help clarify what sort of dumpling this is.

Discussion:

- a. Dr. Ken Whistler: Such an annotation just in charts may not be as effective as adding these in the detailed documentation on emoji symbols. The Emoji subcommittee already had some discussion on these. They have a much more descriptive text in the '[Emoji charts](#)' document.
- b. Ms. Lisa Moore: The proposer had already researched worldwide use of such food items.
- c. Mr. Michael Everson: In this particular case, it is more useful to have these in the charts.
- d. Mr. Michel Suignard: I will let Dr. Ken Whistler decide.

Disposition: Accepted in principle pending editorial review.

7.2.6 USA: Approval with comments

TE.1. Counting Rod Numerals

The US requests glyph correction for 1D378 TALLY MARK FIVE by removing the vertical stroke and fixing the winding error in the glyph.

See also comments E2 from Ireland and T6 from UK.

Disposition: Accepted.

TE.2. Supplemental Punctuation

The US requests correcting the name for 2E4B from TRIPPLE DAGGER to TRIPLE DAGGER.

Disposition: Accepted.

TE.3. Egyptian Hieroglyphs Extended-A

The US requests removing U+13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER based on expert feedback.

Disposition: Accepted.

7.2.7 Additional Review Comments from the Project Editor:

Based on a review of several input documents for new characters in the block 2B00-2BFF Miscellaneous Symbols and Arrows, the editor proposes renaming several astrological symbols that were added in PDAM1, as follows:

@ Astrological symbols for Pluto

2BD4 ASTROLOGICAL PLUTO FORM TWO to PLUTO FORM TWO

2BD5 ASTROLOGICAL PLUTO FORM THREE to PLUTO FORM

2BD6 ASTROLOGICAL PLUTO FORM FOUR to PLUTO FORM FOUR

2BD7 ASTROLOGICAL PLUTO FORM FIVE to PLUTO FORM FIVE

(removing 'ASTOROGICAL' in the above names)

@ Uranian astrological symbols

2BE0 ASTROLOGICAL PLANET CUPIDO to CUPIDO

2BE1 ASTROLOGICAL PLANET HADES to HADES

2BE2 ASTROLOGICAL PLANET ZEUS to ZEUS

2BE3 ASTROLOGICAL PLANET KRONOS to KRONOS

2BE4 ASTROLOGICAL PLANET APOLLON to APOLLON

2BE5 ASTROLOGICAL PLANET ADMETOS to ADMETOS
2BE6 ASTROLOGICAL PLANET VULCANUS to VULCANUS
2BE7 ASTROLOGICAL PLANET POSEIDON to POSEIDON
(removing 'ASTROLOGICAL PLANET' in the above names).
Disposition: Accepted; change the names as proposed above.

Relevant recommendation:

M65.04 (Disposition of ballot comments of PDAM-1 to 5th Edition): WG2 recommends that SC2 accept the disposition of PDAM-1 ballot comments in document N4767. The following significant changes are noted:

- a. Dropping the word 'ASTROLOGICAL' in the character names for the 4 Astrological Symbols for Pluto: 2BD4...2BD7.
- b. Dropping the word 'ASTROLOGICAL PLANET' in the character names for the 8 Uranian Astrological symbols: 2BE0...2BE7.
- c. Correcting the name for 2E4B to 'TRIPLE DAGGER'
- d. Removing 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER, moving characters at 13431...13432 up by one code position to 13430..13431, naming the column 13430...1343F as a new block 'Egyptian Hieroglyphs Format Controls', and, moving the start of the Egyptian Hieroglyphs Extended-A block to 13440.
- e. Adding Tangut ideographs 187ED...187F1 to TangutSrc.txt file.

We will prepare the text for another round of balloting of Amendment 1 with additions from this meeting. It will be issued as PDAM 1.2 for balloting.

Relevant resolutions:

M65.09 (Progression of Amendment 1 to the 5th edition): WG2 recommends that its project editor prepares the final text of Amendment 1 to the 5th edition of the standard, which will include the changes arising from recommendations **M65.03** to **M65.08** above, along with the final disposition of comments (document N4767), and forward it to the SC2 secretariat for processing as a PDAM 1.2 ballot. The draft code charts are in document N4770.

The target starting dates are modified to PDAM 1.2 2016-12, DAM 1 2017-04.

7.3 Roadmap Snapshot

Input document:

[Roadmap ROADMAP TO UCS \(SC2 Standing document\)](#)

Dr. Umamaheswaran: I keep the Roadmap pages on Unicode web site up to date, tracking new contributions or updates to the block ranges. SC2 has a Standing Document pointing to the Unicode Roadmap page. Experts can look at it as a living document.

7.4 PDAM1.2 draft code chart

Output document:

[4770 Pdam1.2 draft charts; Michel Suignard, Project Editor; 2016-09-29](#)

This document, prepared by the project editor, is consolidation of results of this WG2 meeting, showing the charts that will be included in the next round of balloting on Amendment 1 to 5th edition.

7.5 Meeting #65 recommendations

Output document:

[4772 Recommendations from WG 2 meeting 65; WG2 Convener; 2016-09-30](#)

Draft resolutions prepared by the Recording Secretary, with assistance from the drafting committee members, were reviewed and approved with edits for forwarding to SC2. The final set of recommendations is in document N4772.

Amendment 1(PDAM 1) had a character count of 359 prior to meeting. Mr. Michel Suignard reported 1178 in PDAM 1.2 charts. The total number of allocated characters in the standards stands at **137589**, at the end of meeting 65, including the PDAM 1.2 charts content.

In addition to progressing Amendment 1 to another round of ballot as PDAM 1.2, it was decided by WG2, also to initiate a project extension proposal for Amendment 2 to contain additional characters and scripts that become mature between now and the next WG2 meeting.

Relevant recommendation:

M65.11 (Project subdivision for Amendment 2 to the 5th edition of the standard): Anticipating the need for encoding additional scripts and characters that will have mature proposals prior to the next SC2 meeting, WG2 recommends to its convener and project editor to generate a new project subdivision proposal for a second amendment to the 5th edition of the standard, and submit it to SC2 for approval. WG2 notes that adding 'CJK Extension G characters' is a candidate for inclusion in Amendment 2. Tentative target starting dates for Amendment 2 to the 5th edition are: PDAM2 2017-07, DAM2 2017-12.

8 IRG status and reports

Input document:

[4789](#) IRG Meeting #N47 Recommendations and Action Items; IRG; 2016-10-21
[IRG/N2110](#) IRG No. 45 Recommendations – Hong Kong, SAR; IRG; 2015-11-20
[IRG/N2150](#) IRG No. 46 Recommendations – Beijing, China

Dr. Lu Qin went over the different recommendations from IRG Meeting 45 in HKSAR.

Some of the items like F1 F2 etc. are part of the DIS of 5th edition.

In recommendation M45.7, it was mentioned that glyphs for 3 ideographs out of four ideographs (2B5AA, 2B9D7, 2BF4A and 2C88D, from document [N4682](#)) have been fixed in CD of 5th edition. The project editor has fixed the item in IRG M45.8. It was later verified to be correct in the CD 5th edition.

IRG had agreed to provide the IDS data for CJK Ext. F to Unicode. The IRG chief editor is following it up.

The PnP document is being updated editorially for some clarification.

IRG Meetings:

IRG#49 San Jose, USA 2017-10-16/20 has already been approved by WG2 #65.

IRG requests approval from WG2 for the following meetings:

IRG#50 Macao 2018-05-21/25 (tentative, China as backup)

IRG#51 China 2018-10-22/26 (tentative, Hong Kong as backup)

Discussion:

- a. Mr. Michel Suignard: Any idea as to when the next extension be ready?
- b. Dr. Lu Qin: Most likely, we will have something stable to submit to WG2 after IRG 48. Probably in time for the next WG2 meeting.
- c. Mr. Michel Suignard: Ext F was complicated. It caused some issues by some disunification / unification etc. changes. When you come closer to the stable set, I may have some recommendations for you for the dataset.

9 Script contributions related to ballots:

9.1 *Related to and incorporated into CD.2*

Input documents:

[4723](#) Glyph Corrections for 3 Tangut ideographs; Andrew West, et al; 2016-04-21
[IRG/N2149](#) Editorial Report on CJK_F and Miscellaneous Issues; IRG #46; 2016-05-25
[IRGN2130](#) [HKSAR Review](#) HKSAR Feedback on Extension F repertoire
[IRG/N2150](#) IRG No. 46 Recommendation M64.2 CJK Ext F – Beijing, China
[4728](#) Draft additional repertoire for ISO/IEC 10646:2016 (5th edition) DIS; Michel Suignard, Project Editor; 2016-05-26

The above contributions were inputs considered during the progress of the 5th edition since the last WG2 meeting. The 5th edition has progressed to the DIS stage, the ballot for which is in progress.

See *relevant observation M65.01 on page 11*.

9.2 *Related to and incorporated into PDAM 1*

Input documents:

[L2/15-121](#) Proposal to Encode Indic Siyaq Numbers (revised); Anshuman Pandey; 2015-10-08
[L2/15-233](#) Proposal to encode the Makasar script (supersedes L2/15-179; Anshuman Pandey; 2015-10-07
[L2/15-234](#) Proposal to encode the Dogra script (supersedes L2/15-213; revised); Anshuman Pandey; 2015-11-05
[L2/15-235](#) Proposal to encode the Gunjala Gondi script; Anshuman Pandey; 2015-11-03
[L2/15-241](#) Proposal to encode Latin small capital letter Q; Severin Barthelemy; 2015-10-12
[L2/15-256](#) Proposal to Add Tamil Nukta Character; Martin Hosken; 2015-10-29
[L2/15-272](#) Proposal to add one extra character to the Ahom Block; Martin Hosken; 2015-10-26
[L2/15-335](#) Proposal to encode the Devanagari letter and vowel sign AY; Anshuman Pandey; 2015-12-10
[L2/15-341](#) Proposal to encode additional head marks for Zanabazar Square; Anshuman Pandey; 2015-12-29
[L2/15-342](#) Proposal to Encode a Subjoiner for Zanabazar Square; Anshuman Pandey; 2015-12-29

[L2/16-016](#) Proposal to encode the Soyombo mark PLUTA; Anshuman Pandey; 2016-01-19
[L2/16-018](#) Proposal to encode three control characters for Egyptian Hieroglyphs (revised); Bob Richmond, Andrew Glass; 2016-01-27
[L2/16-020](#) Proposal for encoding the Medefaidrin (Oberoi Okaimé) script in the SMP; Andriy Rovenchak, et al; 2016-01-19
[L2/16-031](#) Proposal to encode the Kannada sign SIDDHAM in Unicode; Srinidhi A, Sridatta A; 2016-01-22
[L2/16-032](#) Proposal to encode two Latin characters for Mazahua (replaces L2/14-201); Denis Moyogo Jacquerey; 2016-01-22
[L2/16-045](#) Consolidated proposal for new emoji, Jan 2016; Emoji SC / Peter Edberg; 2016-01-27
[L2/16-056](#) Proposal to encode Al-Dani Quranic marks used in Quran published in Libya; Lateef Sagar Shaikh; 2016-02-24
[L2/16-059](#) Proposal to add the Copyleft Symbol to Unicode (revised); David Faulks; 2016-08-15
[L2/16-064](#) Extra Symbols from Uranian Astrology (revised); David Faulks; 2016-08-15
[L2/16-065](#) Proposal to encode two Western-style tally marks; Ken Lunde, Daisuke Miura; 2016-03-14
[L2/16-067](#) Astrological Plutos (revised); David Faulks; 2016-08-15
[L2/16-097](#) Proposal to encode Kaithi Number Sign Above (revised); SEI / Benjamin Yang; 2016-05-11

[4704](#) Proposal to add Medievalist punctuation characters to the UCS; Michael Everson, et al; 2015-12-19
[4706](#) Proposal to encode four N'Ko characters in the BMP of the UCS; SEI/Michael Everson; 2015-12-29
[4717](#) Proposal to encode one Bopomofo letter; Andrew West; 2016-04-21
[4724](#) Proposal to encode five additional Tangut ideographs; Andrew West, et al; 2016-04-21
[4729](#) Draft additional repertoire for ISO/IEC 10646:2016 (5th edition) Amendment 1; Michel Suignard, Project Editor; 2016-06-07

The above contributions were considered as inputs in preparing the text for PDAM 1 to the 5th edition, after the last WG2 meeting.

Relevant Observation:

M65.02 (Additions in Amendment 1 to 5th edition): WG2 also notes that the balloted text for PDAM1 to the 5th edition, per document [N4729](#), added 359 characters.

9.3 Related to PDAM 1

Input documents:

[L2/16-236](#) Future Additions to ISO/IEC 10646 (May and August 2016); Unicode Consortium; 2016-08-15
[4756](#) Feedback on N4717 for Bopomofo letter NN; TCA; 2016-09-22

The above documents were considered during the disposition of ballot comments on PDAM 1; see discussions under item 7.2 on page 11 above.

10 Script contributions not related to ballots

10.1 Carried Forward

10.1.1 Scripts and new blocks

Afáka ([N4292](#)); Bagam ([N4293](#)); Balti 'B' ([N4016](#)); Balti scripts ([N3842](#)); Chinese Chess Symbols ([N3910](#)); Dhives Akuru ([N3848](#)); Diwani Numerals ([N4119](#)); Diwani Siyaq Numbers ([N4122](#)); Eebee Hmong ([N4668](#)); Jurchen ([N4077](#)); Kawi ([N4266](#)); Khambu Rai ([N4018](#)); Khatt-i Baburi ([N4130](#)); Kpelle ([N3762](#)); Landa ([N3768](#)); Leke ([N4438](#)); Mandombe ([L2/16-077R](#)); Moon ([N4128](#)); Mwangwego ([N4323](#)); Nandinagari ([N4389](#)); Naxi Dongba ([N4043](#)); Obsolete Simplified Chinese Ideographs ([N3695](#)); Old Yi ([N3288](#)); Oracle Bone ([N4687](#)); Ottoman Siyaq ([N4124](#)); Pau Cin Hau Syllabary ([N4412](#)); Persian Siyaq ([N4125](#)); Pyu ([N3874](#)); Ranjana ([N4515](#)); Rohingya ([N4283](#)); Tolong Siki ([N3811](#)); Tulu ([N4025](#)); Woleai ([N4146](#)); Zou ([N4044](#)).

10.2 New Scripts or Blocks

10.2.1 Additional Georgian characters

Input documents:

[4712](#) Revised proposal for the addition of Georgian characters; Michael Everson; 2016-05-03
[4774](#) Georgian Language Ad-Hoc ; Steven R. Loomis ; 2016-09-29

Mr. Steven Loomis presented the ad hoc report in document [N4774](#).

The proposal was to disunify the Mkhedruli and Mtavruli, and encode the Mtavruli. There has been some push back from some vendors. There is also a lack of adoption of 10646 in the user community. There is going to be a meeting in November 2016 in Georgia where this topic could be discussed. We need to reach out to the user community for feedback.

Discussion:

- a. Mr. Michel Suignard: The lower case and upper case forms are used canonically equivalent. Having that in place is important.
- b. Mr. Steven Loomis: The request was to show Emphasis, including in plain text. Casing is not the main issue. There is also some older manuscripts using both Mtavruli and Mkhedruli. We will be reaching out to user community and get some more feedback.

Disposition: Await further input.

10.2.2 Cypro-Minoan script

Input documents:

[4733](#) Revised proposal to encode the Cypro-Minoan script in the SMP; SEI/Michael Everson; 2016-07-22
[4762](#) Feedback on Cypro-Minoan (based on Script Ad Hoc comments in L2/16-216); SEI/Deborah Anderson; 2016-09-22

Mr. Michael Everson: Cypro-Minoan is a syllabary. Hardly cyphered. It is over a century – about 200+ objects discovered between Syria, Greece and Cyprus. It is related to Cypriot syllabary. Scholars are still working on it. There are a number of schools of thought on how to organize these. Three geographically separate interpretations are around. Arguments go on between modern scholars, in terms of variants, unification etc. Linear A and other are related. We have taken the original catalog list and have encoded them as individual characters. Scholars have realized some of these (in Anatolian) were variants of others. Tangut has similar stuff in them such as duplicates and ghost characters. The proposal here is based on Catalog set out by Ms. Emilia Masson, with some additional stuff from a particular tablet at the end. One group of scholars are OK with a bunch of characters and ignore the rest, because they are only interested in reading these. Character CM22 may not be very different from CM21 etc. One of the lists there have unified these two. If we do unify these, how would one be able cite such

ghost characters, or discuss them? We have encoded such (potentially unifiable) characters in other scripts – Linear A and Anatolian Hieroglyphs. The script is not fully deciphered. Have feedback from others that catalog based encoding is probably the right way to go since we do not have complete understanding of what may be or may not be unifiable. If we do not encode them, they cannot use them at all. The catalog has 140 characters and I think we should go ahead with these.

Discussion:

- a. Dr. Ken Whistler: The statement that there is no way to typeset this unless all these are encoded is wrong. This particular catalog has status that some of these are unifiable etc. we should take that under advisement. CM22 and CM21 were questioned and the feedback we had was they could be unifiable. We need to be cautious just based on their historic status. We may have done these in others ... but we should not continue to make similar mistakes. There are others who have come up with catalogs, which are different from the catalog that is used in this particular proposal. A catalog is used here. Others may come up with other catalogs. I do not see personally a need for encoding this now.
- b. Mr. Michael Everson: The problem is that different scholars lump these differently. There is no consensus on what could be unifiable or not. Some are more reductionists than others. Messon's 1974 catalog is what they agree to be the one to follow. All the current scholars use that catalog – even when they work with subsets from that. We do not have any consensus as to which of these are unifiable or not etc. It is not just for typesetting charts - but also for running texts. I guess we could add VSs to get such questionable characters. We are not at a point where we have an understanding of unifying them or not; the user community would like to keep them all.
- c. Mr. Michel Suignard: I do not see if we have enough consensus to move forward.

Disposition: Await further input.

10.2.3 Western Cham characters

Input documents:

[4711](#) Proposal to encode seven Cham characters in the BMP of the UCS; SEI/Michael Everson, et al; 2016-04-25

[4734](#) Proposal to encode Western Cham in the SMP; SEI/Michael Everson, et al; 2016-06-13

Mr. Michael Everson: Document [N4711](#) had asked to add 7 new Cham characters. The consensus was to disunify these from Eastern Cham. Document [N4734](#) shows examples of additional characters. We were asked to provide more explanation about consonant clusters etc., and dealing with independent vowels between Eastern and Western Cham. Eastern Cham has independent characters for A and I whereas Western Cham compose these. If we decide to encode these as compositions, there is a question about decompositions.

Discussion:

- a. Dr. Ken Whistler: If they are independent vowels – they should not decompose. They will look similar to compositions but will not decompose.
- b. Mr. Michael Everson: We will have a collection of all the clusters needed from the Western Cham community, possibly before the next UTC meeting. There may be orthographic differences between regions using the Western Cham. Some clusters may look different. I do not have the details yet. 1E24F NAAN is in Western Cham NAAN, whereas it was not in the Eastern Cham that was based on the Script reform. Apparently, this NAAN has been retained in handwriting. We may need to consider adding that also to Eastern Cham. I am expecting to make progress quickly. The code table is unlikely to change.
- c. Ms. Lisa Moore: Thanks for taking the feedback you received from the UTC and working with the community.
- d. Dr. Ken Whistler: Is there a reason why the table could not be made isomorphic with the Eastern Cham.
- e. Mr. Michael Everson: We are only proposing those that are additionally needed for Western Cham. They are going into the empty slots.

Disposition: Wait for revision. May not be ready for PDAM 2.1 inclusion.

10.2.4 Loma script

Input document:

[4735](#) Update on encoding the Loma script in the SMP; SEI/Michael Everson; 2016-07-22

Mr. Michael Everson: This script has not progressed. The Transliterations do not match up. The glyphs do not match up. Etc.

Disposition: Await refined proposal.

10.2.5 Small Khitan script

Input documents:

[4725](#) Towards an Encoding of the Khitan Small Script; Andrew West, et al; 2016-04-21

[4736](#) Summary of Meeting on Khitan Scripts, 20 August 2016 (Yinchuan, China) - Ad Hoc Report #1; Deborah Anderson; 2016-08-20

[4737](#) Summary of Meeting on Khitan Scripts, 22 August 2016 (Yinchuan, China) - Ad Hoc Report #2; Deborah Anderson; 2016-08-22

[4738](#) Final proposal to encode the Small Khitan Script in the SMP; SEI/Michael Everson; 2016-09-13

[4763](#) Comments on Mongolian, Small Khitan, and other WG2 #65 documents; Deborah Anderson, et al; 2016-09-24

[4765](#) Discussion of 29 proposed Khitan Small Script characters; Viacheslav Zaytsev, Andrew West; 2016-09-24

[4768](#) Small Khitan script adhoc report; Lisa Moore; 2016-09-28

Mr. Michel Suignard: The original proposal is document N4725. It had two further revisions.

Document N4738:

- a. Mr. Michael Everson went over the document N4738. We had a meeting in Aug 2016 in Yinchuan, with various experts on Small Khitan script. There were two ad hoc reports. The clustering behaviour is described in document N4725. They are orthography related questions. After document N4738 was circulated we had some feedback. Two characters are proposed to be added, but need more evidence. For 29 characters proposed after review, see document N4765.
- b. Mr. Michel Suignard: This is somewhat like Nushu. The names could be refined incrementally.

Document N4763:

Dr. Deborah Anderson: Went over feedback in document N4763. Some suggestions are made about rendering and others on Code chart. There was also a question about the property.

Discussion:

- a. Mr. Michael Everson: Behaviour of Khitan has no relationship with Egyptian Hieroglyphs. All the behaviour of clusters is in document N4725R. The cluster Initial followed by two or more; Double cluster is stacked, and so on; are also discussed. Vertical and Horizontal joining are not related to these.
- b. Dr. Ken Whistler: If this has nothing to do with Hieroglyphs, then what you described about the single and double clusters, then the intent of these is not well defined.
- c. Mr. Michael Everson: The encoding model is laid out in the larger document.
- d. Dr. Ken Whistler: The stacking / cluster behaviour in that document is based on Hieroglyphs. If it is not, then we do not have an encoding model.
- e. Mr. Michael Everson: Regarding Format characters, they can go between characters; they are not prefixed.
- f. The reason they were interfiled was because of the radicals they fell under. The same was with character property. It is based on readings. For human reading it has a special reading; but functions like others.
- g. Dr. Ken Whistler: Function 'like an iterator' and functions 'like any other character' is a contradiction. Unless you can make a case that interfiling is not a smart idea. There are a number of these, which are like other characters but are iteration marks.

Document N4765:

This document shows the 29 characters that were questioned in the feedback on ad hoc reports. These were part of the initial 472, but they may not be all attested. This document attempts to provide additional attestations. Messrs. Viacheslav Zaytsev and Andrew West say they should be kept. We need to get input from Professor WU.

Discussion:

- a. Prof. Yingzhe WU: I have some comments. Yesterday I checked this document. We need to consider these in relationship with all of them. I have issues with some characters – whether they can be unified or not.
- b. Mr. Michael Everson: The issue is similar to what we encountered with Tangut. They are retained to have scholarly compatibility and be able to search etc.
- c. Dr. Lu Qin: Could we use VSs?
- d. Dr. Ken Whistler: It is equivalent to say that all the characters in a KangXi dictionary should be encoded ... even though the dictionary may say some of these could be considered as equivalent lexicographically etc. We do encode all of them, even though they may be known to be variants of each other. The argument here to include these variants in Small Khitan is similar.

(Note: The ad hoc group is to consider various discussion points above.)

Mr. Michel Suignard: Are we talking about something potentially going into an Amendment? If it is only a few characters under question, we may be able to add or remove etc. in Amd ballot process. As long as there are no major issues with the script, we may be able to progress it. I would encourage the ad hoc to consider that as well.

Document N4768 contains the ad hoc report.

- a. Dr. Ken Whistler: We met yesterday afternoon. Attendees list is in the report. We discussed most recent set of documents – addressed various questions that had been raised. The recommendation is to have two format characters instead of the cluster control characters. After reviewing the evidence for 29 characters, two characters are to be removed and glyph for 18BD2 was agreed upon. A revised document will reflect the correct glyph.
- b. The Iteration mark was renamed and decided to be moved. The ad hoc did not come to a conclusion re: Radicals. Mr. Michael Everson has moved them to a separate column.

- c. Mr. Michael Everson: I looked at the Radicals and had some feedback on them. 8 Radicals are identical to Khitan characters – of the 20 radicals. The remaining 12 are components and they do not participate in clustering. Regular characters participate in clusters. An annotation may be adequate.
- d. Dr. Ken Whistler: There is a general category for radicals, which is different from regular characters. That property could be used by implementation.
- e. Mr. Michael Everson: Should we fold all these in or do we have two separate columns for the others? In addition, we decided not to use the CJK radicals instead of Khitan specific ones.
- f. Dr. Ken Whistler: Folding them in would be starting point. If there is any arguments about them, we can consider them later.
- g. Mr. Michael Everson: There will be 8 less characters due to the unification of the radicals with the regular characters. Annotations will indicate their use. Radicals will have algorithmic names. Only the Iteration mark and format characters will not have algorithmic names.

Disposition:

Accept the Small Khitan script in 18B00...18CFF block, for inclusion in Amendment. Document N4771 contains the new charts, names, glyphs etc.

Relevant recommendation:

M65.05 (Khitan Small Script): WG2 accepts the recommendations of the ad hoc on Khitan Small Script, in document N4768, and recommends that SC2 accept to encode the script in a new block 18B00...18CFF named ‘Khitan Small Script’ and populate it with 484 characters with their names, code positions and glyphs based on document N4771.

10.2.6 Egyptian Hieroglyphs Extension

Input documents:

4741; Preliminary proposal to encode Möller's Egyptian Hieroglyphs in the SMP; SEI/Michael Everson; 2016-09-09

4742; Preliminary Mapping table of Möller's Egyptian Hieroglyphs; Deborah Anderson; 2016-09-21

4751; Source analysis of an extended Egyptian Hieroglyphs repertoire (Hieroglyphica); Michel Suignard, expert; 2016-09-09

Mr. Michel Suignard: These are preliminary proposals.

Document N4741

Mr. Michael Everson: In 2007, the user community had recommended Sir. Alan Gardiner's set. Further work is suggested to be based on Professor G. Möller's set. Several experts have mapped to and from Gardiner's set. We had meetings on the topic in Cambridge. Experts would like to review the proposed set. One of the characters we could entertain is to add one single character from this set to the last empty position. From Gardiner's set - 1342F --- A0033 it is a class AA Hieroglyph. About 166 characters are listed in the document. We are awaiting feedback from experts.

Document N4751

Mr. Michel Suignard: There are 7346 characters listed in this collection. Does not mean that we need to encode them separately. Some of these are atomic and others are joined. The joining can be in complex ways. When we have a set like that, the taxonomy of these is important. How do we find that characters that are the same etc.? Augmented Gardiner grouping and IFAO grouping -- correspondences between the two is shown. IFAO goes further by having sub groups within each group. For example A group has 33 (plus miscellaneous) sub groups. Two models were considered and the difficulty associated with each one is described in the document. IFAO agrees that some compromises had to be made. For example, a bird with a knife; which one becomes the primary category? The document shows mapping of S02 Crown type 2 (S3) as an example. About 4000 of the 7000+ have been analyzed using this taxonomy. The work is still in progress. A spreadsheet showing current analysis results is included. This is not an encoding proposal at this time. Several candidates could be derived as encodable from this analysis. There is still some controversy among the Egyptologists since most of them are focused on a specific period. There could be as many opinions as experts as to how to classify some of the hieroglyphs. Of the 4000 close to 1000 are already encoded. As we progress, we could identify what could be encoded. The set we saw from Mr. Michael Everson have been analyzed but not all.

Discussion:

- a. Ms. Lisa Moore: What kind of analysis by the current experts? Do they do some analysis like what you have presented here?
- b. Mr. Michel Suignard: Each group of experts has their own methods of classifications. Similar to having their own dictionaries.
- c. Mr. Michael Everson: One of the problems of using the large font sets is a question about the origins of each of these. Currently the Egyptologists are focused on Format characters to process these. The experts we met with in Cambridge understand these complexities. The Berlin project has a large database. We should probably get some Tolemaic experts involved.

- d. Mr. Michel Suignard: There are some characters, which combine spatially but most of them are not. This work can go in parallel with the quadrad approach.
- e. Dr. Deborah Anderson: One of the experts I consulted with agrees that it is a good approach.
- f. Dr. Ken Whistler: The CJK Radical Stroke approach has similar issues as to which component is involved.
- g. Mr. Michel Suignard: Also, when there are two components, which one wins? Container wins over the containing object etc. are some rules that have been followed.
- h. Ms. Lisa Moore: Having a database like this would be useful for Egyptologists.
- i. Mr. Michel Suignard: I have not included additional information dealing with these as logograms, such as sounds, global meaning of these etc. One would also need transliteration and have a single scheme for that – currently there is a whole bunch of the transliteration schemes also.

Disposition: Await refined contributions.

10.2.7 Shuowen Small Seal script

Input documents:

[4688](#); Proposal to encode Small Seal Script in UCS; TCA and China; 2015-10-20

[4716](#); Proposal to Apply Source-Based Variation Selector in Shuowen Small Seal Encoding; Suzuki Toshiya; 2016-04-28

[4755](#); Feedback on N4716 Shuowen small seal; TCA; 2016-09-22

[4761](#); Feedback on N4755 Shuowen small seal; Suzuki Toshiya; 2016-09-26

Document [N4688](#) is the original contribution. Document [N4716](#) contains feedback from Mr. Toshiya Suzuki. Document [4756](#) TCA response and document [4761](#) contains feedback from Mr. Toshiya Suzuki.

Ms. Lin Mei Wei: Mr. Toshiya Suzuki suggests using variation selectors for different sources. The source references have not been clearly identified in the document. Shouwen is a specific dictionary, and may have different meaning for different users!

Discussion:

- a. Dr. Ken Lunde: He is not proposing that these should be variants of CJK ideographs.
- b. Mr. Michel Suignard: Which source are you using? THX?
- c. Ms. Lin Mei Wei: Yes, THX.
- d. Mr. Tatsuo Kobayashi: His intention is not to encode Small Seal characters as variations of CJK ideographs. He wants these to be independent from modern characters. Variations are only for different sources for Small Seal.
- e. Ms. Lin Mei Wei: Mr. Toshiya Suzuki wants to have all the characters to be done at the same time. TCA wants to have these in two phases. We want to encode the THX first. Other versions can be added as differences in a later phase.
- f. Document [N4756](#) shows an example in Figure 3. At some point, some of the variants in the glyphs may be needed to show the sources by variation selectors.
- g. Mr. Tatsuo Kobayashi: There may be one authentic dictionary, but different versions of that dictionary. Mr. Toshiya Suzuki's suggestion for VSs is to avoid the discussion about which source may be the correct one etc.
- h. Ms. Lin Mei Wei: TCA agrees that VSs can be used for the sources. However, we would like go ahead with a single source THX.
- i. Mr. Michael Everson: The example seems to be showing these are font variants rather than needing VS-s.
- j. Dr. Ken Whistler: Figure 1 compares same character from two different sources. These may not be just font differences. Structurally these are different. I would be careful to apply IDs to Small Seal because of these structural differences.
- k. Mr. Michel Suignard: I do not think we are far apart in understanding what Mr. Toshiya Suzuki is saying. It is certainly not the variations of modern CJK.
- l. Dr. Ken Whistler: The same character in two different versions of the same dictionary appear differently. Within the dictionary, there may be entries with the same reading but appearing differently. That needs further examination.
- m. Mr. Michel Suignard: Can we agree on whether we can run with THX as the source?
- n. Dr. Ken Whistler: I think TCA has made that choice.
- o. Dr. Lu Qin: Duplicate characters in document [N4761](#) have to be checked.
- p. Ms. Lin Mei Wei: We are going to have an ad hoc meeting in June; experts from Japan, China and TCA will be participating. Other interested parties can join.
- q. Mr. Tatsuo Kobayashi: I would encourage Mr. Toshiya Suzuki to participate in the ad hoc. He can perhaps be co-author for the proposal.
- r. Mr. Michel Suignard: I encourage everyone interested in this script to work together.

Disposition:

Await report from the ad hoc meeting.

Relevant recommendation:

(Note: The following was added in a revision to the Meeting recommendations after the meeting closed.)

M65.19 (Small Seals script):

WG2 invites the authors of document N4688 to revise their proposal on the Small Seals script, taking into account the feedback documents received prior to this meeting and the discussion at this meeting, working with other experts interested in this script.

10.2.8 Garay script

Input document:

4709 Proposal for encoding the Garay script in the SMP of the UCS; SEI/Michael Everson; 2016-03-22

Mr. Michael Everson: Some additional information was requested to be able to compare with modern orthography. A primer exists showing all the letters, syllables etc. along with some Latin transliterations. We are still awaiting feedback from the source.

Discussion:

- a. Dr. Ken Whistler: The list of vowels shows a set of short and long vowels. Analysis of the vertical swiggle (letter A) as a vowel carrier ... To me it does not look like a vowel carrier. Wolof is a five-vowel system with long and short. Something like A could be a transliteration item. I am looking for words for Wolof words to get an understanding of the Phonology etc. Would like to compare the Garay writing with Latin writing of the same material for comparison.
- b. Mr. Michael Everson: The vowels presented here are based on the Primer. It does beg the clarification question that Dr. Ken Whistler has raised.
- c. Mr. Michel Suignard: Wolof and Arabic is something I had encountered in the past. We could also compare some examples in Arabic.

Disposition: Await more information.

10.2.9 Cher Vang Hmong script

Input document:

4710 Preliminary proposal to encode the Cher Vang Hmong script in the UCS; SEI/Michael Everson; 2016-03-19

Mr. Michael Everson: Hmong script was found on the internet with users, fonts etc. This proposal describes whatever I could find about the script. The user community is there, but we cannot reach them yet.

Mr. Steven Loomis: One of my colleagues, who is living in Fresno, has tried to make contact with the user community. Not successful so far.

Disposition: Await further development.

10.2.10 Shuishu script

Input documents:

4696 Preliminary Proposal for encoding Shuishu in the SMP of the UCS; China; 2015-10-21

4758 Updated Proposal for encoding Shuishu in the SMP of the UCS; China; 2016-09-22

Ms. Ching-Ju (Daisy) Lai: Document N4758 is an update of earlier contribution.

On Transliteration: We tried to use the pronunciation and sorted alphabetical using IPA. Tonal markers are used. Homophones are distinguished with -A and -B marks. Tone numbers are used instead of using L, Z, C etc. for tonal markers.

On Character Count and Methodology: We have updated source texts – 17 books and 8 volumes. 485 characters were in the proposal from the various religious source texts. Examples of frequency counts etc. are given. For each character, the variants are also examined. Experts on Shuishu did this work. From the original set of characters, 40 were eliminated and 41 were added resulting in a set of 486 characters. Information about repetition, same usage, variants etc. are given. Most frequently used form is chosen among the variants. The index was reordered from the previous proposal. 13 Categories were arrived at by Shui masters after further research from previous proposals. Tables showing the additions, reordering and deletions is provided. Characters under each of the category is also tabulated.

Discussion:

- a. Mr. Michel Suignard: What would be the list of ordered characters for coding purposes?
- b. Ms. Ching-Ju (Daisy) Lai: The main table has sequence numbers ordered by pronunciations. Category tables are separate and they show the number of the character from the main table.
- c. Mr. Michael Everson: I would like to see the ordering by categories. Within each category, they could be by pronunciations. The Categories help us to find the characters from different groups. Even for the researchers it was helpful. The Shui masters arrived at these categories. They entered the character number in these tables.
- d. Dr. Ken Whistler: Looking at this proposal, this script is something that WG2 is **not** normally used to. This is an ideographic symbol set used by Shui masters for astrological purposes. It is unlike any other script – it cannot be used for transcribing spoken Shui. We need also to consider how best to organize these for presentation. The work should be published within China as reference material for the Shuishu. When that is accomplished, we could

consider including these in 10646, giving consideration for ordering, names etc. I do not think it is quite ready for inclusion in 10646 at this time.

- e. Mr. Michel Suignard: Do you think more work needs to be done on this?
- f. Mr. Michael Everson: For Nushu we had a publication as a reference to base the encoding on. Dr. Ken Whistler is suggesting that we should have a similar reference material for us to proceed with the encoding. I was looking at some of the transliterations based on the input in Sri Lanka. You have used numbers etc. for Tones, which I prefer to letters etc. One of the references you have on page 71 seems to be using letters for tone marks in the Romanization.
- g. Ms. Ching-Ju (Daisy) Lai: This proposal has numbers etc. for indexing purposes. We wanted to make it easier to find these characters in a table. We can always reorganize after these are ordered in some fashion to start with.
- h. Mr. Michael Everson: The most important thing we need is the repertoire and a stable reference.
- i. Ms. Ching-Ju (Daisy) Lai: The publications we have are also to be used by looking at pictures -- they are not yet in computerized etc. The translations have been done.
- j. Mr. Michael Everson: It is nice to have all those corpuses as background references. Has any of these sources condensed the set of characters into the set of 486 or so? Or, is the proposal document, a distillation of the material?
- k. Ms. Ching-Ju (Daisy) Lai: Shuishu has a dictionary – the author of that dictionary was in Sri Lanka. The set of various Shui characters have been filtered into the 486.
- l. Mr. Michel Suignard: It looks like we are closer to where we want to be. The proposal seems to have what you want. The request is to have some reference document to base the encoding on. Some of us in WG2 can assist you towards arriving at a reference publication. Should we wait for another revision before entertaining the encoding part?
- m. Mr. Michael Everson: There could be another meeting of experts to discuss and polish up the proposal and finalizing. That activity may include getting a definitive reference document. The current proposal may be a draft towards that reference. If that is done, perhaps we will have something to go to WG2 with something solid.
- n. Dr. Ken Whistler: The details of the kind of reference document that should be in place can be taken off line. The ballot mechanism to move code points etc. should not be the way forward.
- o. Mr. Michel Suignard: We can request another round of refinement on the proposal before we get it on WG2 agenda again. Before we get the script into a ballot, some additional work needs to get done. For example, a prototype of nameslist. It could be that you would like to include the categories etc. Additional information could be in attached .txt files to the standard. You can look at what we did for Nushu as an example to follow.

Disposition: Await revised proposal.

Relevant recommendation:

M65.12 (Shuishu script): WG2 invites the authors of document N4758 to revise their proposal on the Shuishu script taking into account the feedback received at this meeting, working with other experts interested in this script.

10.2.11 Primitive script from SW China

Input document:

[4759](#) Preliminary Proposal for encoding Primitive Scripts in Southwest China in the SMP; ZHAO, Liming; 2016-09-22

Ms. Ching-Ju (Daisy) Lai: In the project on "Rescue, Recovery and Research on Minority Languages in Southwest China", a large number of pictographic scripts and symbols were discovered among about 30 ethnic groups speaking Tibeto Burman language. They share the common cultural origin influenced possibly by Bon and Tibetan Buddhism. Almanac used by priests is one common source. Different colours and directions of placement of these symbols have different meanings. These symbols appear on sticks used by priests. There are about 100 to 200 symbols used by these various groups.

Discussion:

- a. Mr. Michel Suignard: Some of the entries show different glyphs – but same name, pronunciation etc. This is a preliminary proposal. Much more work needs to be done on these to become a fully baked proposal. More work is needed to address the multiple glyphs for the same meaning etc. There are ways of indicating colours for emoji etc. However, the colours cannot be shown in code charts.
- b. Dr. Ken Whistler: I do not think we have made a case for encoding these symbols in the standard. This proposal is research in progress. The symbols have been passed from one group to another. They have a usage. However, it is not clear whether it is a system of symbols that should be encoded in the standard or not. They should be studied and documented.
- c. Dr. Umamaheswaran: You also mentioned that directions of these symbols may have different meanings. You may have to bring those out too.
- d. Mr. Ou Rileke: Colours may have different meanings. Auspicious vs Inauspicious etc.
- e. Mr. Michel Suignard: Once you get to the point of encoding, you need to be able somehow distinguish between them

Disposition: Await a refined proposal.

Relevant recommendation:

M65.13 (Primitive Scripts of South West China): WG2 invites the authors of document [N4759](#) to revise their proposal on the Primitive Scripts of South West China taking into account the feedback received at this meeting, working with other experts interested in this script.

10.2.12 Proto-Cuneiform script

Input document:

[4760](#) Preliminary proposal for encoding Proto-Cuneiform in the SMP of the UCS; Michael Everson; 2016-09-25

Mr. Michael Everson: It is similar to the Oracle Bone script to some extent. Many of these characters have been analyzed. There are many Glyph Variants. Most representative glyph has been selected. The Cuneiform specialists have made the choice. The proposal has been put together with the fonts and glyphs given to us. There may be more characters in the set. Therefore, there are empty cols, at the end in the charts. We are awaiting input from the experts on this proposal.

Discussion:

- a. Dr. Deborah Anderson: You were going to fix the names of some of the characters.
- b. Mr. Michael Everson: I have asked Mr. Steve Tinney about these. I need to understand their convention.
- c. Mr. Michel Suignard: What are names based on?
- d. Mr. Michael Everson: The readings - A and B distinguish the readings. They gave me the names they use. There are 200 characters – may be more – I do not know at this point in time.

Disposition: Await updated proposal.

10.3 Additions to Existing Scripts or Blocks

10.3.1 Medievalist punctuation characters

Input documents:

[4726](#) Revised Proposal to add Medievalist punctuation characters to the UCS; Michael Everson, et al; 2016-05-04

[L2/16-220](#) Proposal for Medieval Comma; Michael Everson, Deborah Anderson, et al; 2016-08-01

[L2/16-235](#) Proposal to encode PARAGRAPHUS and PUNCTUS ELEVATUS; Michael Everson, Deborah Anderson, et al; 2016-08-05

A subset of characters from [N4726](#) are in [L2/16-220](#) and [L2/16-235](#)

Document [L2/16-220](#) – Medieval Comma

The UTC has accepted this character for encoding.

Disposition: Add 2E4C MEDIEVAL COMMA to PDAM 1.2.

Document [L2/16-235](#) – Two characters.

The UTC has accepted these two characters for encoding.

Disposition: Accepted for PDAM 1.2.

Add:

2E4D PARAGRAPHUS MARK

2E4E PUNCTUS ELEVATUS MARK

See item b in the relevant recommendation **M65.08** on page 27.

Document [N4726](#)

Mr. Michael Everson: Medieval European punctuation is complicated. People used all kinds of marks, dots etc. for punctuation. Functions performed by these were focused on, instead of describing the mark. Some of these were applied rigorously, whereas others were loosely applied. Section 2 describes the function of each of these proposed characters. Some of these could be considered as sequences – for example Positura in 2.2. One of the ways to distinguish was their use. The Comma in this sequence is not the same as regular comma. Under each of these sections, the character that is requested is marked in parenthesis. Medievalists need their own shapes for marks. Punctus Elevatus has been accepted. Sideways reversed ones have not been accepted. There is some degree of variations in handwritten manuscripts. The recommendations in this proposal are based on typographic practices. Section 2.2.3 shows two variations of PUNCTUS VERSUS and LOW PUNCTUS VERSUS. Section 2.2.4 has PUNCTUS INTEEROGATIVUS (the reverse of this has already been encoded as REVERSED QUESITON MARK). Section 2.4 has ‘Distinctiones’, which are sequences of characters. A HIGH DOT is proposed. (Mr. Michael Everson described each one of the remainder).

Discussion:

- a. Mr. Michel Suignard: These characters have been discussed at the UTC. Three of these have been accepted. The remainder are still work in progress. Two of the characters from an earlier version are already in Amd. 1.
- b. Mr. Michael Everson: I do not know what more needs to be done.
- c. Ms. Lisa Moore: The UTC has not accepted some of these characters.

- d. Dr. Ken Whistler: I do not think the rest of them ready yet. They have not been abstracted out of the proposal with additional examples in the way of contrast and representation. We did that with PUNCTUS ELEVATUS. We should do similar thing to all these. The historical status for some of these is not all that clear. Need for these to be distinct characters has to be established. These are my opinions.
- e. Mr. Michael Everson: There were 21 characters in the original proposal. We need to have these together in order to show the use in contexts etc. Figures in this proposal do show the contrast. We could separate these out into individual documents – but it would be just adding extra work. I do understand people could be confused since we do not use these anymore
- f. Ms. Lisa Moore: If there could be an ad hoc among the people who may be interested, we may be able to progress some of these. Punctus Flexus Mark could be pulled out, for example. It could be less confusing for people.
- g. Mr. Michael Everson: The proposal has all related rationale of sequencing etc. and I would not like to lose this material.
- h. Dr. Deborah Anderson: A Unicode Technical Note may be adequate to describe the interrelationships.
- i. Mr. Michael Everson: It could be done once the characters are encoded, and it would certainly be useful.

Disposition: Relegated to an ad hoc – Messrs. Michael Everson, Ken Whistler and Misses. Deborah Anderson and Lisa Moore to discuss and recommend.

10.3.2 Hentaigana

Input documents:

- [4731](#) New character alias to 1B001 HIRAGANA ARCHAIC YE; Japan; 2016-07-14
- [4732](#); Revised proposal for Hentaigana; Japan; 2016-07-14
- [4743](#); Proposal to correct the note for "HENTAIGANA LETTER HO; Japan; 2016-09-12

Mr. Michel Suignard: Document [N4732](#) is a .zip file containing two .pdf files and one .excel file. Each character has a derivation and an annotation. 285 characters are listed.

The block would be:

- Kana supplement (which has one code point now ... 1B001).
- 1B002 is the starting point of additions to Kana Supplement; fill it up till the end.
- Next new block: Kana Extended-A: 1B100...1B11F (for overflow).

Discussion:

- a. Dr. Ken Whistler: We should follow the Latin naming Latin Supplement, Latin Extended-A, Latin Extended B. We need two columns for finishing the current Hentaigana proposal. How much more is needed? I would suggest 3 columns ending at 1B12F. We may find more Hentaigana characters. Currently we have Kaida ... we have to move that to elsewhere.
- b. Mr. Tatsuo Kobayashi: We appreciate your proposal to add more columns. There are only two sources for these Hentaigana. One of these is for names – that list is fixed. Japanese colleagues have searched all the available sources and have included all the candidates. Very few additions, if any, may be needed.
- c. Dr. Ken Whistler: I am sure you will find at least more than one additional character – therefore we need to provide at least one more column, to be safe.
- d. Mr. Michel Suignard: I have produced draft charts ... with some changes towards the end of the list of characters. I have also the annotation for 1B001 character.

Disposition:

Accept the proposal for 285 Hentaigana characters from document [N4732](#), in two Blocks. Names are from spreadsheet. Japanese experts are to check the charts and names to assist the editor with the chart. Also, accept request for alias to name of 1B001 in document [N4743](#). It should be included in Amendment 1, which will go through another round of balloting as PDAM 1.2.

Relevant recommendation:

M65.03 (Hentaigana): WG2 recommends that SC2 accept the repertoire of 285 Hentaigana characters from document [N4732](#) (Hentaigana_Revised_Repertoire-201606.pdf), and encode the first 254 of these in code points 1B002 to 1B0FF in the Kana Supplement block, and the remaining 31 characters at code points 1B100...1B11E, in a new block named Kana Extended-A (in the range 1B100..1B12F), for inclusion in Amendment 1 to the 5th edition. WG2 also recommends adding the character name alias 'HENTAIGANA LETTER E-1' to 1B001 as proposed in document [N4731](#).

Action item: Update Roadmap.

Discussion of related items:

- a. Dr. Ken Whistler: From this meeting, we would have established the code points and blocks in PDAM1.2. If there is no disagreements from any one, these code points and blocks will not change, even if it takes time for getting this to be in the Amendment. 1 publication. Japan may be able rely on its stability.
- b. Mr. Tatsuo Kobayashi: We need some discussion in 14651 – we would need some discussion on treatment of E1 vs Ancient Kana characters. We can leave the E1 as proposed.
- c. Mr. Michel Suignard: We would run with this in PDAM 1.2. There may be more scripts added.
- d. Will these be part of JMJ collection? You may have a stable JMJ collection also, that could include Ext. F as well as Hentaigana. Japan is requested to submit the content of JMJ collection to include in PDAM 1.2.

10.3.3 Symbols for Go game notation

Input document:

[4719](#) Proposal to encode symbols for Go game notation; Andrew West; 2016-07-11

This proposal is from Mr. Andrew West. It proposes four characters to complete the set needed for Marking GO stones.

Discussion:

- a. Dr. Ken Whistler: That block has similar characters.
- b. Mr. Michel Suignard: The block has several others like wingdings etc. also.
- c. Mr. Tatsuo Kobayashi: I would like to get feedback from Japanese experts.
- d. Mr. Michel Suignard: Can you get the feedback this week? Probably not.
- e. Mr. Michael Everson: The proposal has ample evidences etc.
- f. Mr. Michel Suignard: We should at least put these in a collection for adding to PDAM 2.1.
- g. Dr. Ken Whistler: Mr. Andrew West has given examples for use in English and Chinese ... probably not for Japanese.

The proposal is for adding in In the Geometric Shapes Extended block, the four characters --.CIRCLED TRIANGLE, NEGATIVE CIRCLED TRIANGLE, CIRCLED SQUARE and NEGATIVE CIRCLED SQUARED. At code positions 1F7D5 ...1F7D8

Disposition: Accepted for inclusion in Amendment 1 (PDAM 1.2).

See item a in the relevant recommendation **M65.08** on page 27.

10.3.4 Additional Symbols for Astrology

Input document:

[L2/16-080](#) Additional Symbols for Astrology (revised); David Faulks; 2016-05-31

Dr. Deborah Anderson: The proposal is for 9 Astrology-related symbols. Script ad hoc of UTC had made several recommendations to the author. This version has incorporated all our comments.

2BE8, 2BE9, 2BF0...2BF6 in the Miscellaneous Symbols and Arrows block is suggested. We can accept the names without 'ASTROLOGICAL' in the names. The final Code positions could be different from what is suggested.

Discussion:

- a. Mr. Michael Everson: I hate such proposals. There were several glyph maps for these. However, these are made up for computer use. There may be some ballot comments to improve some of the proposed glyphs.
- b. Dr. Ken Whistler: Some of these things have fairly good history in printed documents. It was not just made up on the fly, even though there are lots of those. There are typeset charts containing several of these.

Disposition:

Accept for inclusion in PDAM 1.2. See item d in the relevant recommendation **M65.08** on page 27.

10.3.5 Gurmukhi Abbreviation Sign

Input document:

[L2/16-209](#) Proposal to Encode an Abbreviation Sign for Gurmukhi (revised); Srinidhi A, Sridatta A; 2016-08-15

Dr. Ken Whistler: This is one of the Indic scripts. Abbreviation sign is in Devanagari. We have discovered this sign also in Gurmukhi. Bengali is another script that has it. The Gurmukhi sign request is another one of these. The proposal is for 0A76 GURMUKHI ABBREVIATION SIGN.

Disposition:

Accepted for PDAM 1.2. See item f in the relevant recommendation **M65.08** on page 27.

10.3.6 Future Additions to ISO/IEC 10646 (May and August 2016)

Input document:

[L2/16-236](#) Future Additions to ISO/IEC 10646 (May and August 2016); Unicode Consortium; 2016-08-15

Specific request for additions in document [L2/16-236](#) were dealt with under other agenda items.

10.3.7 Indalo symbol

Input document:

[4745](#); Proposal to encode an Indalo symbol; Andrew West; 2016-09-12

The contribution is from Mr. Andrew West. The symbol is attested in prehistoric rock carvings from Almeria province in Spain. Indalo in ancient Iberian language means ‘messenger of the gods’. It has been adapted a symbol of good luck with Almeria and elsewhere in Europe.

Discussion:

- a. Mr. Michael Everson: It is widely used in many contexts. Whether it is used in running text could be questioned, but we do have a lot of symbols here. I like it.
- b. Dr. Ken Whistler: I do have problem with it; that it is not clearly demonstrated its use with running text. It is used as a regional identity symbol – such as in bags, hats etc. We may be opening another Pandora's Box for such identity symbols. We have similar case with different regional flags, and different emoji. We may find instances of such regional identity symbols – but a case has not been made as to why an international standard should encode such symbols. The same problem exists with Ichtys religious symbol also.
- c. Mr. Michael Everson: There is another agenda item asking for three flag symbols etc. The entire ethnic regionality is certainly an issue. Mr. Andrew West has no particular case --- that the standard could be useful outside just USA! I do not see a compelling case for adding this particular symbol. It is not ubiquitous enough and may not be seen in running text.

Disposition:

Not accepted.

(Same argument applies for the next proposal for Ichtys symbol.)

10.3.8 Ichthys symbol

Input document:

4746 Proposal to encode an Ichthys symbol Andrew West 2016-09-12

Discussion:

- a. Mr. Michael Everson: The contribution is from Mr. Andrew West. The symbol has been around for 1000-s of years. The Darwin fish has been in use for less. I do not find Ichthys symbol to be offensive – as expressed by someone in Sri Lanka meeting. The Darwin Fish symbol has been removed in this revised proposal (from N4661).
- b. Dr. Ken Whistler: This is also another symbol that illustrates a failure to make a case for character encoding. It is clearly a symbol. I do not think neither 10646 nor the Unicode standard should be a catalog of all the symbols. One could collect various symbols ... but a case has to be made to encode these as characters. This particular symbol is known to cause some religious controversy. We should stay away from such until a case has been made to encode this as a character.

Disposition:

Not accepted.

10.3.9 Four half star symbols

Input document:

4747 Final proposal to encode four half star symbols; Ken Shirriff, Andrew West; 2016-09-1

The proposal is for Four half stars – LEFT and RIGHT half blacks, and combining these with white full stars, used in Social media for rating systems.

Discussion:

- a. Mr. Michel Suignard: May shuffle around some the symbols in this block to make sense.
- b. Dr. Ken Whistler: From bidi point of view, these will not flip automatically depending on direction.

Disposition:

Accepted for inclusion in PDAM 1.2; in Miscellaneous Symbols and Arrows block at code positions 2BD8...2BDB.

See item e in the relevant recommendation M65.08 below.

Relevant recommendation:

M65.08 (Additional changes in Amendment 1 to 5th edition): WG2 recommends that SC2 accept the following additional changes in the Amendment 1 to the 5th edition of the standard:

- a. Add the following 4 circled characters in the Geometric Shapes Extended block (with their glyphs from document N4719R):
1F7D5 CIRCLED TRIANGLE
1F7D6 NEGATIVE CIRCLED TRIANGLE
1F7D7 CIRCLED SQUARE
1F7D8 NEGATIVE CIRCLED SQUARE

- b. Add the following **3** Medieval punctuation marks in Supplemental Punctuation block.
 2E4C MEDIEVAL COMMA (with its glyph from document [L2/16-220](#))
 2E4D PARAGRAPHUS MARK, and, 2E4E PUNCTUS ELEVATUS MARK (with their glyphs from document [L2/16-235](#))
- c. Move up characters 2BD4...2BD7 by one code position to 2BD3...2BD6 in Miscellaneous Symbols and Arrows block.
- d. Add following **9** astrological symbols (with their glyphs from document [L2/16-080R](#)) in Miscellaneous Symbols and Arrows block:
 - 2BD7 TRANSPLUTO
 - 2BD8 PROSERPINA
 - 2BD9 ASTRAEA
 - 2BDA HYGIEA
 - 2BDB PHOLUS
 - 2BDC NESSUS
 - 2BDD WHITE MOON SELENA
 - 2BDE BLACK DIAMOND ON CROSS
 - 2BDF TRUE LIGHT MOON ARTA
- e. Add following **4** half-star symbols (with their glyphs from document [N4747](#)) in Miscellaneous Symbols and Arrows block:
 - 2BE8 LEFT HALF BLACK STAR
 - 2BE9 RIGHT HALF BLACK STAR
 - 2BEA STAR WITH LEFT HALF BLACK
 - 2BEB STAR WITH RIGHT HALF BLACK
- f. Add 0A76 GURMUKHI ABBREVIATION SIGN (with its glyph from document [L2/16-209R](#)) in Gurmukhi block

10.3.10 Xiangqi game symbols

Input documents:

[4748](#) Proposal to encode Xiangqi game symbols; Andrew West; 2016-09-1

[4763](#) Comments on Mongolian, Small Khitan, and other WG2 #65 documents; Deborah Anderson, et al; 2016-09-24

[4766](#) Recommendations for encoding Xiàngqí game symbols; Michael Everson; 2016-09-27

Dr. Deborah Anderson: The experts who reviewed these, have provided feedback that dedicated characters for these pieces could be entertained. On page 27, it is a good example of how these symbols are used in a text context. The symbols and their meanings in text form is given. It is a very good case that these are text symbols with rationale for encoding them. The difference is that Mr. Andrew West has suggested a set of abstract symbols – picked by variation selection. He has provided different variations as examples. VS could be used for variants. Page 7 illustrates the variants. Pieces have different radicals or pictures etc. There are also different ideographs or pictures etc. in the pieces. VS-s should not be used to distinguish such variants. Our recommendation is that a set of these symbols be proposed for encoding, rather than treating them as variants.

The authors can be requested to extract a short list of all the symbols – needed in white background and in black background. It would be set of about 20 or so. The character names should be Circled CJK Unified Ideograph xxxx. Annotations could be XIANGQUI xxxx.

Mr. Michael Everson prepared document [N4766](#) containing a subset of these symbols. It contains the glyphs, names and code points summarizing the consensus. 30 characters in the Enclosed Ideographic Supplement block.

Mr. Michel Suignard: I have updated the annotations to indicate decompositions for Ideographs with white background.

Disposition:

Accept the 30 circled Xiangqi game symbols for PDAM 1.2.

Relevant recommendation

M65.06 (Xiangqi game symbols): WG2 recommends that SC2 accept the set of 30 Xiangqi game symbols (circled ideographs) in the Enclosed Ideographic Supplement block, with their names, code positions and glyphs based on document [N4766](#).

10.3.11 Additional circled numbers

Input documents:

[4749](#) Proposal to encode additional circled numbers; Andrew West; 2016-09-12

[4763](#) Comments on Mongolian, Small Khitan, and other WG2 #65 documents; Deborah Anderson, et al; 2016-09-24

A large number of circled numbers is proposed, in the absence of a mechanism for combining circle with numbers in the standard.

Discussion:

- a. Dr. Ken Whistler: A more appropriate method would possibly be using Markups rather than encoding this open set. The footnote numbers are precisely styled numbers. In Western typography, it would be super sub scripts. In Eastern typography, the styling is to put these within a circle etc. The circled numbers that are in the standard are due to backward compatibility with pre-10646 standards. The elements of typography were embedded in the older standards. The negative ones, the boxed ones, the double circled ones etc. are all Style variations. We should not be taking a large number of these characters and push them into encoding standard as characters.
- b. Mr. Michel Suignard: We are not proposing a solution in plain text.
- c. Dr. Ken Whistler: No. These are styled texts – looks like plain text in Eastern typography – but are really styled texts. Conceptually it should be handled the way styled text is dealt with.

Disposition:

Not accepted.

10.3.12 Mongolian revision

Input documents:

[4752](#) Mongolian Base Forms, Positional Forms, & Variant Forms; Greg Eck; 2016-09-15

[4753](#) WG2 #65 Mongolian Discussion Points; Deborah Anderson, et al; 2016-09-19

[4763](#) Comments on Mongolian, Small Khitan, and other WG2 #65 documents; Deborah Anderson, et al; 2016-09-24

Output document:

[4769](#) Mongolian adhoc report; Deborah Anderson; 2016-09-29

The documents were considered by an ad hoc on Mongolian during this meeting.

Dr. Deborah Anderson: Document N4769 contains the ad hoc report. We went through two documents. Couple of points are brought to the attention of the editor. Corrections to a couple of Variation Sequences is recommended. There was also a request to present the charts in the standard. It was recommended that another publication should be the route instead of changing what is in the standard now.

Discussion:

- a. Mr. Michel Suignard: We will do it at the earliest technical opportunity – it will be in the form of a Tech Corrigendum to the 5th edition.
- b. Dr. Deborah Anderson: There will be more dialogs among the Mongolian experts. There were about 80+ comments.
- c. Mr. Michel Suignard: We may be able to accommodate any changes in Amd. 1 or Amd. 2. We can also assist in preparing a UTN and in producing any modified chart preparation etc.

Disposition

Accept the ad hoc report. Editor to handle the corrections to Variation Sequences. We cannot remove sequences ... but we can add some note that the erroneous sequence should not be used. A sequence involving 1887 is changed to use regular VS01, instead of a Mongolian VS.

Relevant recommendation:

M65.10 (Mongolian ad hoc report): WG2 accepts the Mongolian ad hoc report in document [N4769](#), and recommends to SC2 that the project editor prepares the recommended updates to the Standardized Variation Sequences for Mongolian in the standard. At the discretion of the project editor, these changes could be considered as part of disposition of ballot comments on the DIS of the 5th edition (which is currently under ballot).

10.4 Miscellaneous Proposals

10.4.1 Proposal to add a new collection named "Japanese core Kanji" in Annex A (N4744)

Input document:

[4744](#) Proposal to add a new collection named "Japanese core kanji" on Annex A; Japan; 2016-09-12

Mr. Tatsuo Kobayashi: The collection is for vocabulary for sharing information between various governmental organizations. For Open Government – they needed a common vocabulary. They decided to restrict the set of Kanji characters to a Common set – proposed as 2136 UCS code points corresponding to Joyo kanji-hyo. Japanese National Body decided to include these in latest version of JIS 2013 update as an Annex. We are requesting the list of code points to be registered as the core set.

Discussion:

- a. Dr. Ken Whistler: Why is this needed in 10646, since you already have it as part of JIS X0213?
- b. Mr. Shuichi Tashiro: This set is defined by ministry of education, for every student to be able to learn and understand. We also have other character sets such as 0208 about 5000 and 0213 has 10000, and the largest set is about 60000. This time we are proposing the minimum set for international industrial use.
- c. Mr. Michel Suignard: Does JIS 0213 not cover these 2136 as a separate set?
- d. Dr. Ken Whistler: The question is not why this set is important. It is evidently important. Why it cannot be just be part of JIS standard, instead of having it to be part of 10646 as a collection?

- e. Mr. Steven Loomis: I am familiar with the Joyo, as well as its importance. In CLDR data, we do have exemplar sets to facilitate testing character sets for specific locale sensitive data.
- f. Mr. Shuichi Tashiro: The most important reason would be Government Procurement. For that, we would need an International Standardized version. Other standards such as XML could also refer to such collections added in 10646.
- g. Dr. Ken Whistler: I think we should not be using 10646 collections for such use. If Uzbekistan wants to have a set of characters for specific use, they can define it in their own documentation. The correct technology to use would be the technologies such as CLDR where the exemplar characters can be defined and implemented using those resources. Having it as a collection defined in 10646 would not be the best way to get such collections included for their intended use. Japanese Government can publish this collection as required Joyo kanji set.
- h. Mr. Tatsuo Kobayashi: Currently we can refer to 10646 for rubber-stamping as an ISO standard, for governmental purposes. Using CLDR etc. does not have the same status.
- i. Mr. Michel Suignard: The Annex A collection is not very much used. CEN TC304 was one of the requestors and Japan has also defined several.
- j. Mr. Shuichi Tashiro: We need the International visibility for such collections.
- k. Mr. Tatsuo Kobayashi: To include every national requirement in Annex A of 10646 is probably not a good idea – I can agree with that. However, some member bodies could have requirements that could be entertained.
- l. Dr. Ken Whistler: The CLDR has already 969 exemplar character sets. Any national body or any other group can publish their set of required characters for any purpose, and once such publication is available, include it in CLDR. There may be multiple published sets of characters in Japan and all these could be identified to CLDR to be picked up.
- m. Mr. Steven Loomis: Maltese government, for example has registered the set of their characters with CLDR. This is parallel to what the Japan's request is.
- n. Mr. Tatsuo Kobayashi: The desire from Japan is to have some rubber stamp as International Standard. This cannot be currently achieved via CLDR etc.
- o. Ms. Lisa Moore: We could probably do both ... have it in Annex A, as well as having it in CLDR etc.
- p. Dr. Ken Whistler: Maltese government created a standard prescribing all the items they needed for their requirements. The exemplar set is what they have included and is in CLDR. Japan can use a similar mechanism; publish a JIS standard that can be referenced by others such as CLDR. If it is a matter of getting an International rubber stamp, I have no objection. Nevertheless, it is not the correct mechanism that scales well, nor should we be encouraging others as well.
- q. Mr. Alain LaBonté: Even from World Trade point of view, usually a national standard should be adequate.
- r. Mr. Michel Suignard: IANA also has the concept of repertoires, and what to use when etc. That is much more detailed than just creating just a collection in 10646. We can go ahead and add the collection into Annex A, just to get the rubber-stamping aspect covered.

Disposition:

Accept the collection to be included in the standard. It would be Collection 375 in section A.4 CJK Collections.

Relevant recommendation:

M65.07 (Japanese core Kanji collection): WG2 recommends that SC2 accept to add a new collection named 'Japanese core Kanji' consisting of 2136 ideographs to add to clause A.4 CJK Collections, along with the JapaneseCoreKanji.txt file, based on document N4744.

11 Defect reports

11.1 **Representative glyph and annotation additions for U+033B (L2/16-178)**

L2/16-178 Representative glyph and annotation additions for U+033B; Lorna Evans, Patricia Keating; 2016-07-06

There was no discussion.

Disposition: Accepted. Editor will incorporate this as an editorial change.

12 Liaison Reports

12.1 **Unicode Consortium**

Dr. Ken Whistler: From UTC to WG2

Unicode 9.0 has been published. Data and charts were published in July. There is also a print on demand version of Version 9.0. Unicode 9.0 is synchronized with Ed 4 and Amd 1 and Amd 2. A few other scripts and emoji were included in Version 9.0. Version 10 is under preparation – the plan is to synchronize it with 5th ed. of 10646, which is under DIS ballot now. Unicode publications are on annual cycle. Version 10 would be in June/July 2017.

CLDR project is now with Unicode – it is on a biannual cycle of publication. Version 29 was published earlier. Version 30 will be in spring 2017.

ICU – major I18n library is proceeding as an Open Source project as before, but it is now under management of Unicode Consortium. ICU 58 is due Oct 14 2016. It picks up Unicode 9.0 and CLDR 29.

Unicode is also hosting the document repository for WG2. I am hoping that it is working well for WG2 delegates.

Ms. Lisa Moore: With the Unicode's "Adopt A Character" donation program, we have been using some of the funds to support experts working on script proposals.

12.2 SEI

Input document:

[4764](#) SEI Liaison contribution; SEI/Deborah Anderson; 2016-09-16

Dr. Deborah Anderson described the SEI Liaison report in document [N4764](#). It has a list of scripts that are in progress and those needing feedback etc. SEI has also organized face-to-face meetings on specific topics to bring experts together.

12.3 Request from SAT Daizokyo for Establishing a Category C Liaison with SC 2/WG 2

Input document:

[4714](#) Request from SAT Daizokyo for Establishing a Category C Liaison with SC 2/WG 2; SAT Daizokyo; 2016-02-29

Mr. Michel Suignard: The request is reasonable. Category C allows them to get information easier. It also allows better quality of input material to IRG and to WG2's work.

Dr. Ken Lunde volunteered to be liaison representative from WG2 to SAT.

Relevant recommendation:

M65.14 (Request from SAT Daizokyo for Cat. C liaison):

WG2 welcomes the liaison relationship with SAT (as requested in document [N4714](#)) and accepts the offer from Dr. Ken Lunde to be the liaison representative to SAT from WG2. WG2 recommends that SC2 accept the request, and process it further.

13 Future meetings:

- Meeting 66 – October 2017 – China – tentative (pending confirmation).
After discussion:
Meeting 66: Sept 25-29 2017: Hohhot, Inner Mongolia, China (<https://en.wikipedia.org/wiki/Hohhot>)

- Meeting 67 – September/October 2018 – Tentative – London, UK

Relevant recommendation:

M65.15 (Future meetings):

WG2 endorses the following schedule for future meetings:

- WG2 Meeting 66 - 2017-09-25/29, [Hohhot](#), Inner Mongolia, China, (co-located with SC2).
(Date to be confirmed)
- WG2 Meeting 67 - 2018-09 or 10 (London, UK).

IRG Meeting 49 – San Jose, CA, USA (Adobe), 2017-10-16/20.

(Note: IRG's request for endorsing its meetings 50 and 51 in 2018 was missed; these should be dealt with at meeting M66 of WG 2 in September 2017.)

14 Closing

14.1 Approval of Recommendations of meeting 65

See section 7.5 on page 15.

14.2 Appreciation

Relevant recommendations:

M65.16 (Appreciation to DKUUG for web site support): WG2 thanks DKUUG and its staff for its continued support of the web site for the older WG2 documents.

M65.17 (Appreciation to Unicode Consortium for web site support): WG2 thanks the Unicode Consortium and its staff for providing the new web site and its support for WG2.

M65.18 (Appreciation to Host): WG2 thanks the national body of USA (INCITS) for hosting the meeting. WG 2 expresses its appreciation to the Unicode Consortium and Adobe Systems Inc. and their staff, in particular to Ms. Ellen Mastros and Dr. Ken Lunde, for arranging the meeting facilities and for the administrative support. WG2 also expresses its appreciation to the Unicode Consortium for their kind hospitality.

14.3 Adjournment

The meeting ended at 11:15h on Friday, 2016-09-30.

15 Action items

All the action items recorded in the minutes of the previous meetings from 25 to 59, and 61, have been either completed or dropped. Status of outstanding action items from previous meetings 60, 62, 63 and 64, and new action items from this meeting 65 are listed in the tables below.

Meeting 25, 1994-04-18/22, Antalya, Turkey (document N1033)
 Meeting 26, 1994-10-10/14, San Francisco, CA, USA (document N1117)
 Meeting 27, 1995-04-03/07, Geneva, Switzerland (document N1203)
 Meeting 28, 1995-06-22/26, Helsinki, Finland (document N1253)
 Meeting 29, 1995-11-06/10, Tokyo, Japan (document N1303)
 Meeting 30, 1996-04-22/26, Copenhagen, Denmark (document N1353)
 Meeting 31, 1996-08-12/16, Québec City, Canada (document N1453)
 Meeting 32, 1997-01-20/24, Singapore (document N1503)
 Meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document N1603)
 Meeting 34, 1998-03-16/20, Redmond, WA, USA (document N1703)
 Meeting 35, 1998-09-21/25, London, UK (document N1903)
 Meeting 36, 1999-03-09/15, Fukuoka, Japan (document N2003)
 Meeting 37, 1999-09-17/21, Copenhagen, Denmark (document N2103)
 Meeting 38, 2000-07-18/21, Beijing, China (document N2203)
 Meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece (document N2253)
 Meeting 40, 2001-04-02/05, Mountain View, CA, USA (document N2353), and
 Meeting 41, 2001-10-15/18, Singapore (document 2403)
 Meeting 42, 2002-05-20/23, Dublin, Ireland (document N2453)
 Meeting 43, 2003-12-09/12, Tokyo, Japan (document N2553)
 Meeting 44, 2003-10-20/23, Mountain View, CA, USA (document N2653)
 Meeting 45, 2004-06-21/24, Markham, Ontario, Canada (document N2753)
 Meeting 46, 2005-01-24/28, Xiamen, China (document N2903)
 Meeting 47, 2005-09-12/15, Sophia Antipolis, France (document N2953)
 Meeting 48, 2006-04-24/27, Mountain View, CA, USA (document N3103)
 Meeting 49, 2006-09-25/29, Tokyo, Japan (document N3153)
 Meeting 50, 2007-04-23/27, Frankfurt-Am-Main, Germany (document N3253)
 Meeting 51, 2007-09-17/21, Hangzhou, China (document N3353)
 Meeting 52, 2008-04-21/25, Redmond, WA, USA (document N3453)
 Meeting 53, 2008-10-13/17, Hong Kong SAR (document N3553)
 Meeting 54, 2009-04-20/24, Dublin, Ireland (document N3603)
 Meeting 55, 2009-10-26/30, Tokyo, Japan (document N3703)
 Meeting 56, 2010-04-19/23, San José, CA, USA (document N3803)
 Meeting 57, 2010-10-04/08, Busan, Korea (Republic of) (document N3903)
 Meeting 58, 2011-06-06/10, Helsinki, Finland (document N4103)
 Meeting 59, 2012-02-13/17, Mountain View, CA, USA (document N4253)
 Meeting 60, 2012-10-22/27, Chiang Mai, Thailand, (document N4353)
 Meeting 61, 2013-06-01/04, Vilnius, Lithuania, (document N4403)
 Meeting 62, San Jose, CA, USA; 2014-02-24/28, (document N4553)
 Meeting 63, Colombo, Sri Lanka, 2014-09-29/20-03, (document N4603)
 Meeting 64, Matsue, Shimane, Japan, 2015-10-19/23, (document N4739)
 Meeting 65, San Jose, CA, USA; 2016-09-26/30, (document N4873) (this document)

15.1 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 60 (with any corrections noted in section 3 in the minutes of meeting 61 in document N4403).	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.

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

Item	Assigned to / action (reference resolutions in document N4554, and unconfirmed minutes in document N4553 for meeting 62 (with any corrections noted in section 3 in the minutes of meeting 63 in document N4603).	Status
AI-62-6	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	To take note of section 2.1 in document N4544 on Representation of CJK ideograph glyphs; and	In progress.

	update the P&P document appropriately.	
b.	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.	In progress.

15.3 Outstanding action items from meeting 63, Colombo, Sri Lanka; 2014-09-29/10-03

Item	Assigned to / action (Reference recommendations in document N4604 , and unconfirmed minutes in document N4603 for meeting 63 (with any corrections noted in section 3 in the minutes of meeting 64 in document N47xx).	Status
AI-63-6	Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)	
a.	To take note of section 2.1 in document N4620 on Representation of CJK ideograph glyphs; and update the P&P document appropriately.	In progress.
AI-63-7	Experts from China (Chen Zhuang), UK (Andrew West), Japan (Toshiya Suzuki), Ireland (Mr. Michael Everson)	
	To take note of and act on the following items.	
a.	M63.15 (Khitani Large script): WG2 invites the authors of document N4631 to revise their proposal on the Khitan Large script taking into account the feedback summarized in the ad hoc report document N4642 , working with other experts interested in this script.	In progress.
c.	M63.17 (Naxi Dongba script): WG2 invites the authors of document N4633 to revise their proposal on the Naxi Dongba script taking into account the feedback received at this meeting, working with other experts interested in this script.	In progress.

15.4 Outstanding action items from meeting 64, Matsue, Shimane, Japan; 2015-10-19/23

Item	Assigned to / action (Reference recommendations in document N4701 , and unconfirmed minutes in document N4739 for meeting 64.	Status
AI-64-6	Experts from China (Chen Zhuang), UK (Andrew West), Japan (Toshiya Suzuki), Ireland (Mr. Michael Everson)	
	To take note of and act on the following items.	
b.	<i>M64.10 (Small Seal script)</i> : WG2 invites the authors of document N4688 to revise their proposal on the Small Seal script taking into account the feedback received at this meeting, working with other experts interested in this script.	In progress. See agenda item 10.2.7 for feedbacks.

15.5 New action items from meeting 65, San Jose, CA, USA; 2016-09-26/30

Item	Assigned to / action (Reference recommendations in document N4772 , and unconfirmed minutes in document N4873 for meeting 65 - this document you are reading).	Status
AI-65-1	Recording Secretary - Dr. V.S. UMaamaheswaran	
a.	To finalize the document N4772 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N4772 .
b.	To finalize the document N4873 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N4873 .
AI-65-2	Convener - Mr. Michel Suignard	
	To take note of and act upon the following items:	
a.	To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list of documents under AI-65-7, items b and c below.)	
AI-65-3	Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)	
	To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a.	<i>M65.03 (Hentaigana)</i> : WG2 recommends that SC2 accept the repertoire of 285 Hentaigana characters from document N4732 (Hentaigana_Revised_Repertoire-201606.pdf), and encode the first 254 of these in code points 1B002 to 1B0FF in the Kana Supplement block, and the remaining 31 characters at code points 1B100...1B11E, in a new block named Kana Extended-A (in the range 1B100..1B12F), for inclusion in Amendment 1 to the 5 th edition. WG2 also recommends adding the character name alias 'HENTAIGANA LETTER E-1' to 1B001 as proposed in document N4731 .	
b.	<i>M65.04 (Disposition of ballot comments of PDAM-1 to 5th Edition)</i> : WG2 recommends that SC2 accept the disposition of PDAM-1 ballot comments in document N4767 . The following significant changes are noted: <ul style="list-style-type: none"> e. Dropping the word 'ASTROLOGICAL' in the character names for the 4 Astrological Symbols for Pluto: 2BD4...2BD7. f. Dropping the word 'ASTROLOGICAL PLANET' in the character names for the 8 Uranian 	

	<p>Astrological symbols: 2BE0...2BE7.</p> <p>g. Correcting the name for 2E4B to ‘TRIPLE DAGGER’</p> <p>h. Removing 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER, moving characters at 13431...13432 up by one code position to 13430..13431, naming the column 13430...1343F as a new block ‘Egyptian Hieroglyphs Format Controls’, and, moving the start of the Egyptian Hieroglyphs Extended-A block to 13440.</p> <p>i. Adding Tangut ideographs 187ED...187F1 to TangutSrc.txt file.</p>	
	<p>c. <i>M65.05 (Khitani Small Script)</i>: WG2 accepts the recommendations of the ad hoc on Khitan Small Script, in document N4768, and recommends that SC2 accept to encode the script in a new block 18B00...18CFF named ‘Khitani Small Script’ and populate it with 484 characters with their names, code positions and glyphs based on document N4771.</p>	
	<p>d. <i>M65.06 (Xiangqi game symbols)</i>: WG2 recommends that SC2 accept the set of 30 Xiangqi game symbols (circled ideographs) in the Enclosed Ideographic Supplement block, with their names, code positions and glyphs based on document N4766.</p>	
	<p>e. <i>M65.07 (Japanese core Kanji collection)</i>: WG2 recommends that SC2 accept to add a new collection named ‘Japanese core Kanji’ consisting of 2136 ideographs to add to clause A.4 CJK Collections, along with the JapaneseCoreKanji.txt file, based on document N4744.</p>	
	<p>f. <i>M65.08 (Additional changes in Amendment 1 to 5th edition)</i>: WG2 recommends that SC2 accept the following additional changes in the Amendment 1 to the 5th edition of the standard:</p> <p>c. Add the following 4 circled characters in the Geometric Shapes Extended block (with their glyphs from document N4719R): 1F7D5 CIRCLED TRIANGLE 1F7D6 NEGATIVE CIRCLED TRIANGLE 1F7D7 CIRCLED SQUARE 1F7D8 NEGATIVE CIRCLED SQUARE</p> <p>d. Add the following 3 Medieval punctuation marks in Supplemental Punctuation block. 2E4C MEDIEVAL COMMA (with its glyph from document L2/16-220) 2E4D PARAGRAPHUS MARK, and, 2E4E PUNCTUS ELEVATUS MARK (with their glyphs from document L2/16-235)</p> <p>e. Move up characters 2BD4...2BD7 by one code position to 2BD3...2BD6 in Miscellaneous Symbols and Arrows block.</p> <p>f. Add following 9 astrological symbols (with their glyphs from document L2/16-080R) in Miscellaneous Symbols and Arrows block: 2BD7 TRANSPUTO 2BD8 PROSERPINA 2BD9 ASTRAEA 2BDA HYGIEA 2BDB PHOLUS 2BDC NESSUS 2BDD WHITE MOON SELENA 2BDE BLACK DIAMOND ON CROSS 2BDF TRUE LIGHT MOON ARTA</p> <p>g. Add following 4 half-star symbols (with their glyphs from document N4747) in Miscellaneous Symbols and Arrows block: 2BE8 LEFT HALF BLACK STAR 2BE9 RIGHT HALF BLACK STAR 2BEA STAR WITH LEFT HALF BLACK 2BEB STAR WITH RIGHT HALF BLACK</p> <p>h. Add 0A76 GURMUKHI ABBREVIATION SIGN (with its glyph from document L2/16-209R) in Gurmukhi block</p>	
	<p>g. <i>M65.09 (Progression of Amendment 1 to the 5th edition)</i>: WG2 recommends that its project editor prepares the final text of Amendment 1 to the 5th edition of the standard, which will include the changes arising from recommendations M65.03 to M65.08 above, along with the final disposition of comments (document N4767), and forward it to the SC2 secretariat for processing as a PDAM 1.2 ballot. The draft code charts are in document N4770. The target starting dates are modified to PDAM 1.2 2016-12, DAM 1 2017-04.</p>	
	<p>h. <i>M65.10 (Mongolian ad hoc report)</i>: WG2 accepts the Mongolian ad hoc report in document N4769, and recommends to SC2 that the project editor prepares the recommended updates to the Standardized Variation Sequences for Mongolian in the standard. At the discretion of the project editor, these changes could be considered as part of disposition of ballot comments on the DIS of the 5th edition (which is currently under ballot).</p>	

i.	<i>M65.11 (Project subdivision for Amendment 2 to the 5th edition of the standard)</i> : Anticipating the need for encoding additional scripts and characters that will have mature proposals prior to the next SC2 meeting, WG2 recommends to its convener and project editor to generate a new project subdivision proposal for a second amendment to the 5 th edition of the standard, and submit it to SC2 for approval. WG2 notes that adding ‘CJK Extension G characters’ is a candidate for inclusion in Amendment 2. Tentative target starting dates for Amendment 2 to the 5 th edition are: PDAM2 2017-07, DAM2 2017-12.	
AI-65-4	IRG Rapporteur and IRG Editor (Dr. Lu Qin)	
	To take note of and act upon the following items:	
a.	<i>M65.15(Future meetings)</i> : WG2 endorses the following schedule for future meetings: IRG Meeting 49 – San Jose, CA, USA (Adobe), 2017-10-16/20.	
AI-65-5	Ad hoc group on roadmap (Dr. Umamaheswaran)	
a.	To update the Roadmaps with the results from this meeting.	Completed. See SC2 standing document SD1 SC2 Roadmaps .
AI-65-6	Experts from China (Chen Zhuang), UK (Andrew West), Japan (Toshiya Suzuki), Ireland (Mr. Michael Everson)	
	To take note of and act on the following items.	
a.	<i>M65.12 (Shuishu script)</i> : WG2 invites the authors of document N4758 to revise their proposal on the Shuishu script taking into account the feedback received at this meeting, working with other experts interested in this script.	
b.	<i>M65.13 (Primitive Scripts of South West China)</i> : WG2 invites the authors of document N4759 to revise their proposal on the Primitive Scripts of South West China taking into account the feedback received at this meeting, working with other experts interested in this script.	
c.	<i>M65.19 (Small Seals script)</i> : WG2 invites the authors of document N4688 to revise their proposal on the Small Seals script, taking into account the feedback documents received prior to this meeting and the discussion at this meeting, working with other experts interested in this script.	
AI-65-7	Experts from all national bodies and liaison organizations	
	To take note of and provide feedback on the following items.	
a.	<i>M65.15 (Future meetings)</i> : WG2 endorses the following schedule for future meetings: WG2 Meeting 66 - 2017-09-25/29, Hohhot , Inner Mongolia, China, (co-located with SC2). (Date to be confirmed) WG2 Meeting 67 - 2018-09 or 10 (London, UK). IRG Meeting 49 – San Jose, CA, USA (Adobe), 2017-10-16/20.	
b.	Following items are carried forward from earlier meetings - filtered at meeting 65: Scripts, new blocks or large collections (awaiting updated proposals from the authors): Afáka (N4292) ; Bagam (N4293) ; Balti ‘B’ (N4016) ; Balti scripts (N3842) ; Chinese Chess Symbols (N3910) ; Dhives Akuru (N3848) ; Diwani Numerals (N4119) ; Diwani Siyaq Numbers (N4122) ; Eebee Hmong (N4668) ; Jurchen (N4077) ; Kawi (N4266) ; Khambu Rai (N4018) ; Khatt-i Baburi (N4130) ; Kpelle (N3762) ; Landa (N3768) ; Leke (N4438) ; Mandombe (L2/16-077R) ; Moon (N4128) ; Mwangwego (N4323) ; Nandinagari (N4389) ; Naxi Dongba (N4043) ; Obsolete Simplified Chinese Ideographs (N3695) ; Old Yi (N3288) ; Oracle Bone (N4687) ; Ottoman Siyaq (N4124) ; Pau Cin Hau Syllabary (N4412) ; Persian Siyaq (N4125) ; Pyu (N3874) ; Ranjana (N4515) ; Rohingya (N4283) ; Tolong Siki (N3811) ; Tulu (N4025) ; Woleai (N4146) ; Zou (N4044) .	
c.	The following documents are awaiting further refinements and discussion: 4688 Proposal to encode Small Seal Script in UCS (zip file with Proposal and associated files); TCA and China; 2015-10-20 4709 Proposal for encoding the Garay script in the SMP of the UCS; SEI/Michael Everson; 2016-03-22 4716 ; Proposal to Apply Source-Based Variation Selector in Shuowen Small Seal Encoding; Suzuki Toshiya; 2016-04-28 4712 Revised proposal for the addition of Georgian characters; Michael Everson; 2016-05-03 4733 Revised proposal to encode the Cypro-Minoan script in the SMP; SEI/Michael Everson; 2016-07-22 4734 Proposal to encode Western Cham in the SMP; SEI/Michael Everson, et al; 2016-06-13 4735 Update on encoding the Loma script in the SMP; SEI/Michael Everson; 2016-07-22 4741 ; Preliminary proposal to encode Möller's Egyptian Hieroglyphs in the SMP; SEI/Michael Everson; 2016-09-09 4742 ; Preliminary Mapping table of Möller's Egyptian Hieroglyphs; Deborah Anderson; 2016-09-	

	<p>21 4751; Source analysis of an extended Egyptian Hieroglyphs repertoire (Hieroglyphica); Michel Suignard, expert; 2016-09-09 4758 Updated Proposal for encoding Shuishu in the SMP of the UCS; China; 2016-09-22 4759 Preliminary Proposal for encoding Primitive Scripts in Southwest China in the SMP; ZHAO, Liming; 2016-09-22 4760 Preliminary proposal for encoding Proto-Cuneiform in the SMP of the UCS; Michael Everson; 2016-09-25 (See also documents under action AI-64-7-b above.)</p>	
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***** END OF MEETING MINUTES *****