

ISO/IEC JTC 1/SC 2/WG 2 **N3353 2007-10-10** 

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

**DOC TYPE:** Meeting Minutes

TITLE: Unconfirmed minutes of WG 2 meeting 51

New Century Hotel, Hanzhou, China; 2007-04-24/27

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

**PROJECT:** JTC 1.02.18 – ISO/IEC 10646

**STATUS:** SC 2/WG 2 participants are requested to review the attached unconfirmed minutes,

act on appropriate noted action items, and to send any comments or corrections to

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Phone:

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the convener as soon as possible but no later than 2008-03-31.

**ACTION ID**: ACT

**DUE DATE**: 2008-03-31

**DISTRIBUTION:** SC 2/WG 2 members and Liaison organizations

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#### ISO

# International Organization for Standardization Organisation Internationale de Normalisation

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

ISO/IEC JTC 1/SC 2/WG 2 **N3353** 

2007-10-10

Title: Unconfirmed minutes of WG 2 meeting 51

New Century Hotel, Hangzhou, China; 2007-09-17/21

Source: V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary

Mike Ksar (mikeksar@10646.com), Convener

Action: WG 2 members and Liaison organizations

Distribution: ISO/IEC JTC 1/SC 2/WG 2 members and liaison organizations

#### 1 Opening

Input document:

**3271** 1st Call, preliminary agenda, logistics; Mike Ksar; 2007-05-23

Mr. Mike Ksar convened the meeting at 10.02h, welcomed the delegates, and introduced the host Mr. Chen Zhuang of CESI, the national body of China.

Mr. Chen Zhuang: Welcome to Hangzhou. There will be no officials at this meeting; there is no formal reception and no formal speech. Ms. Huang Shanshan helped in organizing this meeting and is the support person from CESI.

Ms. Huang Shanshan: I handle all the logistics. If you have any problems you can contact me. An excursion for Friday has been arranged. Delegates interested in attending are requested to fill the form and return by Tuesday.

Mr. Mike Ksar: If someone wants to submit a new document, please give it to me, before it gets a number and then gets posted or copied. OWG Sort will also meet this week. Mr. Alain LaBonté, the project editor, needs about half a day. Two sessions are planned - two hours on Wednesday and two hours on Thursday. We will try to finish our business by noon Thursday. Another room is available for ad hoc discussions and for OWG-Sort meeting. The major focus of this meeting is to review ballot responses for FPDAM 4 and PDAM 5. The results were announced last week and are posted on the web. A proposed disposition of comments from the editor for FPDAM 4 is available. Disposition of comments for PDAM 5 is being prepared by the editor. All the documents I have received for discussion at this meeting are on the web site. I also have a memory stick available for anyone to copy from, if the access via the wireless network is not functional. All the documents are under the directory 'meeting cd'. Some documents that are on the draft agenda are still pending and are not on the memory stick.

#### 1.1 Roll Call

Input document:

WG2 Experts List - end of meeting 50; Ksar; 2007-05-03

A document containing the names and other contact details of WG2 experts was circulated. Attendees were requested to make any corrections and mark their attendance in that document and to give their business card to the recording secretary. Experts outside of those invited by Chinese national body are to identify themselves, and the convener has to recognize them as invited experts. The following 42 attendees representing 9 national bodies, 3 liaison organizations, including 4 invited experts were present at different times during the meeting.

Name	Representing	Affiliation
Mike KSAR	Convener, USA	Independent
HE Zheng-an	host, China	Chinese Electronics Standardization Institute
HUANG Shanshan	host, China	Chinese Electronics Standardization Institute
WANG Li	host, China	Chinese Electronics Standardization Institute
Adrian CHEUK	Invited expert, China	SIL International
Erich FICKLE	invited expert, China	SIL International
Daniel ZHANG	Invited expert, Sweden	Sony Ericsson Mobile Communication

Name	Representing	Affiliation
David MORSE	Invited expert, Thailand	LISU Literature outreach
LU Qin	IRG Rapporteur	Hong Kong Polytechnic University
Tatsuo KOBAYASHI	SC2 Chair, Japan	Justsystems Corporation
Deborah ANDERSON	SEI, UC Berkeley -	Dept. of Linguistics, UC Berkeley
	Liaison	•
Shih-Shyeng TSENG	TCA - Liaison	Academia Sinica
Alain LABONTÉ	Canada; Editor 14651	Ministère des services gouvernementaux du Québec
V. S. (Uma)	Canada; Recording	IBM Canada Ltd.
UMAMAHESWARAN	Secretary	
Al Wendan	China	Xishuangbanna Newspaper Company
Al Xiang	China	Xishuangbanna Minority language Commission
CHEN Zhuang	China	Chinese Electronics Standardization Institute
HE Lifeng	China	Yunnan Minority Language Commission
HUANG Yanjun	China	Independent
LI Xulian	China	Minority Language Office, State Ethnic Affairs Commission
Mai Maitiaili	China	Xinjiang Province Committee of Language
ABUDUREYIMU		
RONG Fengmei	China	Yunnan Minority Language Commission
TAN Yuting	China	Yunnan Minority Language Commission
WANG Xiaoming	China	Institute of Applied Linguistics, Ministry of Education
Wushour SILAMU	China	Xinjiang University
XIE Ming Yao	China	Jiangyong, Hunan
XIONG Yuyou	China	Yunnan Minority Language Commission
YIN Jianmin	China	Huaguang Company
YIN Jianghong	China	Beijing Founder Electronics Co. Ltd.
YU Kanglong	China	Xishuangbanna Newspaper Company
ZHAO Liming	China	Nüshu Institute, Tsinghua University
ZHAO Shihong	China	Lijiang Dongba Culture Research Institute
ZHU Cuifang	China	Tsinghua University
Eero VITIE	Finland	CSC - Finnish IT Centre for Science
Michael EVERSON	Ireland; Contributing Editor	Evertype
Masahiro SEKIGUCHI	Japan	Fujitsu Limited
Dae Hyuk AHN	Korea (Republic of)	Microsoft Korea
KIM Kyongsok	Korea (Republic of)	Pusan National University
Elżbieta BROMA- WRZESIEŃ	Poland	Telekomunikacja Polska S.A.
John KNIGHTLEY	UK	Independent
Michel SUIGNARD	USA; Project Editor	Microsoft Corporation
Peter CONSTABLE	USA; The Unicode Consortium - Liaison; Contributing Editor	Microsoft Corporation

*Drafting Committee:* The recording secretary Dr. Umamaheswaran was assisted by Messrs. Mike Ksar, Michael Everson, Masahiro Sekiguchi, Michel Suignard and Ms. Deborah Anderson in drafting the meeting resolutions.

# 2 Approval of the agenda

Input document:

3305 Proposed Agenda Meeting 51; Ksar; 2007-09-13

The agenda was reviewed and changes were incorporated. The changed agenda was adopted.

Mr. Mike Ksar: I have posted the revisions to the agenda in document N3305 as of 17 September 2007 morning. I have some information about Amd. 3. Input to SC2 chair for his business plan is welcome - can be communicated to the chair. IRG items are now early in the agenda compared to previous years. IRG rapporteur has to leave by Wednesday noon. Some IRG items can be discussed when the editor is here.

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

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# 3 Approval of minutes of meeting 50

# Input document:

3253 Minutes Meeting 50, including Action Items; Uma/Ksar; 2007-07-26

There were no comments sent either to the convener or the recording secretary. Dr. Umamaheswaran pointed to some notes buried in the minutes reflecting changes to the scripts adopted in different amendments. The minutes were approved as written.

# 4 Review action items from previous meeting

# Input document:

3253 Section 17 of Minutes Meeting 50, including Action Items; Uma/Ksar; 2007-07-26

Dr. Umamaheswaran reviewed the action items list in document <u>N3253-AI</u>. Of the **54** action items reviewed, **52** items have been completed; **2** items are carried over.

# 4.1 Outstanding action items from meeting 47, 2005-09-12/15, Sophia Antipolis, France

Item	Assigned to / action (Reference resolutions in document N2954, and unconfirmed minutes in document N2953 for meeting 47 - with any corrections noted in section 3 of document N3103 from meeting 48).	Status
AI-47-5	IRG Rapporteur (Dr. Lu Qin)	
	To take note of and act upon the following items.	
b.	With reference to discussion in meeting 47, regarding IICORE and safe characters for security, IRG is requested to review and feedback on UTS 36 for safe characters and to RFC 3743.  M48, M49, M50 - in progress.	Completed; see document N3282

# 4.2 Outstanding action items from meeting 48, 2006-04-24/27, Mountain View, CA, USA

Item	Assigned to / action (Reference resolutions in document N <u>3104</u> , and unconfirmed minutes in document N <u>3103</u> for meeting 48 - with any corrections noted in section 3 of document N <u>3153</u> from meeting 49).	Status
AI-48-7	US national body (Ms. Deborah Anderson)	
b.	To prepare updated Arabic Math proposal(s) based on documents N <u>3085</u> to N <u>3089</u> . M48, M49, M50 - in progress.	In progress; transferred to Ms. Deborah Anderson

# 4.3 New action items from meeting 50, 2007-04-23/27, Frankfurt-Am-Main, Germany

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are reading)	Status
AI-50-1	Recording Secretary - Dr. V.S. UMAmaheswaran	
a.	To finalize the document N3254 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N3254.
b.	To finalize the document N3253 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N3253.
AI-50-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items.	
a.	<i>M50.42 (Roadmap snapshot):</i> WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3228) to the WG2 web site.	Completed.

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are reading)	Status
b.	M50.41 (Letter from SEI- UC Berkeley): WG2 appreciates the valuable contributions on Minority Scripts by the SEI at UC Berkeley, and instructs the convener to forward documents N3232 and N3233 to SC2 and JTC1 for information.	Completed.
c.		Completed; see document N3262.
d.	To add the following carried forward scripts to next meeting agenda, if any updates are available:  Manichaean script – document N2544  Avestan and Pahlavi script– document N2556  Dictionary Symbols – document N2655  Samaritan Pointing characters – document N2758  Babylonian Pointing characters – document N2759  Bantu Phonetic Click characters – document N2790  Invisible Letter – document N2822  Palestinian Pointing characters - document N2838  Kaithi script - document N3014  Orkhon script - document N3258  Tibetan additions - document 3240  Parthian, Inscriptional Pahlavi, and Psalter Pahlavi scripts -document N3241  Anatolian Hieroglyphs - document N3236  Vedic Sanskrit - document N3235	Completed; see documents 3286 and N3294 on Pahlavi, document N3299 on Orkhun script; document N3286 on Parthian etc;; document N3290 on Vedic Sanskrit. Drop the others.
AI-50-3	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.	M50.1 (Devanagari Candra A): With reference to document N3249, WG2 accepts to encode: 0972 DEVANAGARI CANDRA A in the Devanagari block, with its glyph as shown in document N3249.	Completed.
b.	M50.2 (Vai script glyph corrections and character additions): With reference to documents N3243, WG2 accepts to correct the glyphs highlighted in the code charts shown on pages 6 and 7. WG2 also accepts to encode the following two additional Vai characters:  A62A VAI SYLLABLE NDOLE MA A62B VAI SYLLABLE NDOLE DO with their glyphs shown in document N3243.	Completed.
c.	M50.3 (Arabic math symbols): With reference to document N3259, WG2 accepts to encode the following 6 characters: 2B47 REVERSE TILDE OPERATOR ABOVE RIGHTWARDS ARROW 2B48 RIGHTWARDS ARROW ABOVE REVERSE ALMOST EQUAL TO 2B49 TILDE OPERATOR ABOVE LEFTWARDS ARROW 2B4A LEFTWARDS ARROW ABOVE ALMOST EQUAL TO 2B4B LEFTWARDS ARROW ABOVE REVERSE TILDE OPERATOR 2B4C RIGHTWARDS ARROW ABOVE REVERSE TILDE OPERATOR with their glyphs based on descriptions provided in document N3259.	Completed.

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are	Status
d.	reading)  M50.4 (Disposition of FPDAM3 ballot comments): WG2 accepts the disposition of	Completed.
	ballot comments on FPDAM3 in document $N\underline{3260}$ and instructs its editor to prepare the final text of Amendment 3 incorporating the dispositions. The following changes are	
	noted in particular: 0C71 TELUGU SIGN ARDHAVISARGA is removed from this amendment.	
	2C78 is renamed LATIN SMALL LETTER E WITH NOTCH	
	VAI block is extended by 1 column	
	Updates to three Collection names as provided by Japan Names of characters in the range 0773 to 077D are changed by replacing the word	
	'EASTERN' with 'EXTENDED' in them.	
_	0972 DEVANAGARI CANDRA A is added (see resolution M50.1 above)	Osmanlata d
e.	<i>M50.5 (Phonetic characters glyph correction):</i> With reference to documents N <u>3219</u> and N <u>3215</u> item 4, WG2 accepts to correct the glyphs for:	Completed.
	027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK, and	
	0285 LATIN SMALL LETTER SQUAT REVERSED ESH	
f.	by adjusting the vertical alignment of these glyphs as shown in document N <u>3219</u> . <i>M50.6 (IVD reference):</i> With reference to document N <u>3256</u> , the project editor is	Completed.
<b>'</b> -	instructed to update the reference to the Ideographic Variation Database at the earliest	Completed.
	opportunity. If the relevant final information is available before FDAM3 ballot is issued	
	it should be included in the final text of FDAM 3.	0
g.	M50.7 (Math symbol glyph correction): With reference to documents N3198 item 12, WG2 accepts to correct the glyph for:	Completed.
	22C4 DIAMOND OPERATOR	
	to the shape shown in Table 1 in document N <u>3198</u> , with a more symmetric aspect	
h.	ratio.  M50.8 (Cyrillic glyph corrections): With reference to documents N3184, N3194, N3226	Completed.
11.	and N <u>3215</u> item 5, WG2 accepts to correct the glyphs for:	Completed.
	0460 CYRILLIC CAPITAL LETTER OMEGA	
	0478 CYRILLIC CAPITAL LETTER UK 0479 CYRILLIC SMALL LETTER UK	
	0476 CYRILLIC SMALL LETTER ON 047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO,	
	047D CYRILLIC SMALL LETTER OMEGA WITH TITLO	
	047E CYRILLIC CAPITAL LETTER OT	
i.	with their glyphs as shown in the code chart on page 9 in document N3194.  M50.9 (Progression of Amendment 3): WG2 resolves to include all the items accepted	Completed;
	for inclusion in the standard noted in resolutions M50.4 toM50.8, into Amendment 3.	Awaiting
	WG2 instructs its project editor to forward the final text of Amendment 3 along with the	FDAM3 ballot
	disposition of comments document N <u>3260</u> to the SC2 secretariat for an FDAM ballot. The final set of charts and names lists are in document N <u>3263</u> . The target starting	from ITTF.
	date for FDAM is 2007-06-30.	
j.	M50.10 (Lanna - changes): WG2 notes the following significant changes to Lanna	Completed.
	script in Amd. 4 given in document N <u>3261</u> :	
	Remove Vowel Signs AM and TALL AM at 1A65 and 1A66, and move up characters at 1A67 to 1A7D by two code positions to 1A65 to 1A7B	
	Move down characters at 1A29 to 1A5E by one code position to 1A2A to 1A5F per	
	document N <u>3207</u>	
	Add two characters: 1A29 LANNA LETTER KHUEN HIGH CHA	
	1AAD LANNA SIGN CAANG	
	Use the Khün font style for the code chart (shown in page 16 of document N3207), and	
	Change the names for several characters as given in document N3261 Add (Old Tai Lue) to the block name Lanna in A.2.2	
	Add clarification that parenthetical items are not part of the block names	

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are reading)	Status
k.	M50.11 (Cyrillic additions): With reference to documents N3194R and N3215, WG2 accepts to encode 106 additional Cyrillic characters at code positions: 0487 in Cyrillic block (1 combining mark) 0514 to 0523 in Cyrillic Supplement block (16 characters)	Completed.
	2DF6 to 2DFF in Cyrillic Extended-A block (10 characters) A640 to A65F, A662 to A673, A67C to A697 in Cyrillic Extended-B block (78 characters)	
	2E3B in Supplemental Punctuation Block (1 character) with their names and glyphs as shown in document N <u>3194</u> R.	
l.	M50.12 (CJK Unified Ideographs Extension C): With reference to the report of the ad hoc in document N3267, and the summary table in the PDAM4 disposition of ballot comments document N3261, related to CJK Ext-C, WG2 resolves to remove six ideographs from the current CJK Ext-C repertoire and move the remaining CJK Ext-C	Completed.
m.	characters out of Amendment 4 and process it as part of a new Amendment 5.  M50.13 (Disposition of PDAM4 ballot comments): WG2 accepts the disposition of ballot comments on PDAM4 in document N3261 and instructs its editor to prepare the final text of Amendment 4 incorporating the dispositions. The following changes are noted in particular:	Completed.
	Changes to Lanna encoding as in resolutionM50.10 above Adjusting CJK Ext-C repertoire, source references and glyphs and moving these out for processing in a new Amendment Correcting the glyphs for 4 Mahjong Tiles and annotating the name for another Tile. Changes to Cyrillic Extension-A repertoire arising out of resolutionM50.11 above.	
n.	M50.14 (Qur'anic Arabic letters): With reference to documents N3185 and N3215 item 4, WG2 accepts to encode the following combining characters: 0617 ARABIC SMALL HIGH ZAIN 0618 ARABIC SMALL FATHA 0619 ARABIC SMALL DAMMA 061A ARABIC SMALL KASRA	Completed.
0.	with their glyphs as shown in the code chart on page 7 in document N3211.  M50.15 (Old Persian and Azerbaijani characters): With reference to documents N3180 and N3215 item 4, WG2 accepts to encode 8 Arabic characters at code positions 0616, and 063B to 063F in the Arabic block, and 077E and 077F in the Arabic Supplement block, with their names and glyphs as shown on pages 7 to 10 in document N3211. The first one of these is a combining mark.	Completed.
p.	M50.16 (Mathematical and Symbol characters): With reference to documents N3198, WG2 accepts to encode 29 mathematical and symbol characters at code positions: 2064 in the General Punctuation block, with its name and glyph from pages 22 and 23 in document N3211 20F0 in the Combining Diacritical Marks for Symbols block, with its name and glyph from pages 24 and 25 in document N3211 27CC, 27EE and 27EF in the Miscellaneous Mathematical Symbols block, with their names and glyphs from pages 30 and 31 in document N3211 2B1B to 2B1F, 2B24 to 2B2F 2B45, 2B46, and 2B50 to 2B54 in the Miscellaneous Symbols and Arrows block, with their names and glyphs from pages 31 and 32 in document N3211.	Completed.
q.	14-0-4-70 4 44 0 4 4 0 4 4 4 4 4 4 4 4 4 4 4 4	Completed.
r.	M50.18 (Latin capital letter sharp S): With reference to document N3227R, WG2 accepts to encode:  1E9E LATIN CAPITAL LETTER SHARP S in the Latin Extended Additional block, with its glyph as shown in document N3227R.	Completed.
s.		Completed.

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are reading)	Status
t.	M50.20 (Disunification of CJK ideograph 4039): With reference to documents N3196, WG2 accepts to encode the new CJK Ideograph at code position 9FC3, with the second glyph in the figure on page 1 of document N3196, and the source references G_KX0809.020, KP1-5E2B and T4-3946. WG2 also accepts to add a new source reference T6-4B7A to CJK ideograph at code position 4039 (keeping its current source references G3-5952 and KP1-5E34 and removing its source reference T4-3946).	Completed.
u.		Completed.
v.	M50.22 (3 Combining Macrons): With reference to document N3222, WG2 accepts to encode the following 3 combining marks: FE24 COMBINING MACRON LEFT HALF FE25 COMBINING MACRON RIGHT HALF FE26 COMBINING CONJOINING MACRON in the Combining Half Marks block, with their glyphs as shown in document N3222.	Completed.
w.		Completed.
x.	M50.24 (Ancient Roman characters): With reference to documents N3218 and N3215 item 6, WG2 accepts to encode 11 additional characters at code positions: 2185 to 2188 in the Number Forms block, 2E19 in the Supplemental Punctuation block, A7FB to A7FF in the Latin Extended-D block, and 1019B in the Ancient Symbols block, with their names and glyphs as shown in document N3211.	Completed.
y.	M50.25 (CJK Unified Ideographs additions): WG2 accepts to encode the 7 CJK Unicode-sourced ideographs, with their glyphs as shown in document N3210 at code positions 9FBC to 9FC2.	Completed.
z.	M50.26 (Medievalist and Iranianist punctuations): With reference to document N3193, WG2 accepts to encode the following 20 characters at code positions 2E1A, 2E1B, 2E1E, 2E1F, 2E2A, 2E2C, 2E2E, 2E2F, 2E34, 2E38, and 2E40 to 2E49 in the Supplemental Punctuation block, with their names and glyphs as shown on pages 34 and 35 in document N3211.	Completed.
aa.	M50.27 (Progression of Amendment 4): WG2 resolves to include all the items accepted for inclusion in the standard noted in resolutionsM50.10 toM50.26 above into Amendment 4. WG2 instructs its project editor to forward the final text of Amendment 4 along with the disposition of comments document N3261 to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in document N3264. The corrected starting dates for this work item are: FPDAM 2007-06-01, and FDAM 2007-12.	Completed; see document N3269.
bb.	M50.28 (Archaic Sinhala numbers): With reference to document N3195R, WG2 accepts to encode 20 characters in the Sinhala block at code positions 0DE7 to 0DEF and 0DF5 to 0DFF, with their names and glyphs as shown on pages 3 and 4 in document N3195R.	Completed.
cc.		Completed.

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 - this document you are reading)	Status
dd.	M50.30 (Coptic additions): With reference to documents N3222, WG2 accepts to encode in the standard 7 characters in code positions 2CEB to 2CF1 in the Coptic block, with their names and glyphs as shown in document N3222. Three of these characters are combining marks.	Completed.
ee.	M50.31 (Tai Viet script): With reference to documents N3220 and N3221, WG2 accepts to encode in the standard 73 characters in code positions AA80 to AAC3 and AADB to AADF in a new block AA80 to AADF named Tai Viet, with their names and glyphs as shown in document N3220. Several of the characters are combining marks.	Completed.
ff.	M50.32 (Bamum script): With reference to document N3209, WG2 accepts to encode in the standard 88 characters in code positions A6A0 to A6F7 in a new block A6A0 to A6FF named Bamum, with their names and glyphs as shown in document N3265. Two of these characters are combining marks.	Completed.
gg.	M50.33 (Meitei Mayek script): WG2 accepts to encode in the standard 76 characters in code positions 1C80 to 1CBC, 1CBF to 1CCC and 1CCF, in a new block 1C80 to 1CCF named Meitei Mayek, with their names and glyphs as shown in document N3206.	Completed.
hh.	Jamo characters as detailed in document N <u>3242.</u> This includes creating two new blocks A960 to A97F named Hangul Jamo Extended-A and D7B0 to D7FF named Hangul Jamo Extended-B along with annotations proposed in document N <u>3172</u> .	Completed.
ii.	in the standard 62 characters in code positions 10B00 to 10B35 and 10B38 to 10B3F in a new block 10B00 to 10B3F named Avestan, with their names and glyphs as shown in document N3197.	Completed.
jj.	M50.36 (Amendment 5 – subdivision and PDAM text): WG2 instructs its editor to prepare a project sub division proposal and PDAM text based on resolutionsM50.27 toM50.35 above, and forward them to the SC2 secretariat for ballot. The proposed start dates for the progression of this work item are: PDAM 2007-05-10, FPDAM 2007-10-30, and FDAM 2008-07.  Due to the tight schedule prior to meeting M51 national bodies are encouraged to copy the project editor on their ballot comments at the same time they submit them to SC2 secretariat.	Completed; see document N3270.
AI-50-4	Project Editor, Michel Suignard	
	To act on the resolution below.	
a.	M50.37 (WD of next edition): With reference to documents N3229, N3230, N3248 and N3214, WG2 instructs its editor to prepare working draft of the next edition of the standard for consideration at meeting M51, incorporating the texts of Amendments 1 through Amendment 4, along with a rationale document for the proposed changes in document N3229, and including the expanded names list based on the NamesList.txt file publicly available from the Unicode Consortium's web site.	Completed; see documents N3274, N3275 and N3276.
AI-50-5	Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)	
a.	To take note of and act upon the following items.  Check and propose any updates to the P&P document arising from adopting the combined code table and enhanced names list format per document N3214.	In progress.
AI-50-6	Chinese national body - Mr. Chen Zhuang and Mr. Ngodrup	
	To take note of and act upon the following items.	NI. ( . I
a.	M50.40 (Addition of 3 Tibetan characters): WG2 invites the Chinese national body to discuss and resolve the concerns raised at meeting M50 on the proposal for 3 additional Tibetan characters in document N3240 by other WG2 experts.	Noted.
AI-50-7	China, Ireland and UK - national bodies; Prof. Silamu, Mr. Michael Everson and Mr. Andrew West  To take note of and act upon the following items.	
а.	<i>M50.39 (Orkhon):</i> With reference to document N <u>3258</u> , WG2 invites the national bodies of China, Ireland and the UK to prepare a revised proposal taking into account the discussion at meeting M50 on Orkhon, for consideration at meeting M51.	Completed; see document N3299.
AI-50-8	All national bodies and liaison organizations  To take note of and act upon the following items.	

Item	Assigned to / action (Reference resolutions in document N3254, and	Status
	unconfirmed minutes in document N3253 for meeting 50 - this document you are	
	reading)	
a.	M50.38 (Hangul Jamo usage model): With reference to document N3257, WG2 notes	Noted.
	that national body of Republic of Korea has withdrawn their proposal for a new Hangul	
	Jamo usage model in document N3113.	
b.	M50.39 (Orkhon): With reference to document N3258, WG2 invites the national bodies	Completed;
	of China, Ireland and the UK to prepare a revised proposal taking into account the	see document
	discussion at meeting M50 on Orkhon, for consideration at meeting M51.	N3299.
c.	M50.40 (Addition of 3 Tibetan characters): WG2 invites the Chinese national body to	Noted.
	discuss and resolve the concerns raised at meeting M50 on the proposal for 3	
	additional Tibetan characters in document N3240 by other WG2 experts.	
d.		Noted; see
	N <u>3241</u> Parthian, Inscriptional Pahlavi, and Psalter Pahlavi scripts	documents
	N <u>3236</u> Anatolian Hieroglyphs	N3286,
	N <u>3235</u> Vedic Sanskrit	N3290.
e.	M50.43 (Future meetings):	Noted.
	WG 2 meetings:	
	Meeting 51 - 2007-09-17/21, Hangzhou, China (note new location); along with SC2	
	plenary.	
	Meeting 52 - 2008-05-19/23 (to be confirmed), West Coast, USA.	
	Meeting 53 - 2008-10, (tentative) Tokushima (near Osaka), Japan; along with SC2	
	plenary.	
	Meeting 54 - 2009-05, (tentative) Hong Kong SAR.	
	Meeting 55 - 2009-10 - seeking host.	
	IRG meetings:	
	IRG #28 - 2007-06-04/08, Xi'an, China (note new location)	
	IRG #29 - 2007-11-12/16, San Jose, California, USA (host Adobe; to be	
	confirmed).	N N.
f.	In addition to the proposals mentioned in the items above, the following proposals	Noted. No
	have been carried forward from earlier meetings. All national bodies and liaison	feedback;
	organizations are invited to review and comment on them.	remove this
	Manichaean script – document N <u>2544</u>	list from next
	Dictionary Symbols – document N <u>2655</u>	set of Als.
	Samaritan Pointing characters – document N <u>2758</u>	
	Babylonian Pointing characters – document N <u>2759</u> Bantu Phonetic Click characters – document N <u>2790</u>	
	Invisible Letter – document N2822	
	Palestinian Pointing characters - document N <u>2838</u>	
	Kaithi script document N <u>3014</u>	
	reading script document in <u>so 14</u>	

# 5 JTC1 and ITTF matters

Mr. Mike Ksar: The FDAM 3 text has been sent to ITTF; but no ballot has been issued by JTC 1 as yet. The SC2 chair's report to JTC1 should bring the matter of this delay to JTC1's attention.

### Relevant resolution:

# M51.34 (Concern on delay in FDAM 3 progression):

**Unanimous** 

WG2 instructs its convener to communicate to ITTF via SC2 secretariat and SC2 chair its concern on the delay by ITTF in processing FDAM3 to ISO/IEC 10646: 2003 with a request for expediting its processing.

# 6 SC2 matters

# 6.1 SC2 Program of Work

# 6.1.1 SC2 Proposed Business Plan to JTC1

# Input documents:

3332 SC2 Business Plan for JTC1 Plenary; SC2 Secretariat, SC02 N3962; 2007-09-12
3333 Canadian NB input to SC2 Business Plan; SC2 Secretariat, SC02 N3961; 2007-09-12

Mr. Mike Ksar: Delegates can review the draft SC2 business plan in document N<u>3332</u> and give feedback to the SC2 chair, Mr. Tatsuo Kobayashi.

Mr. Tatsuo Kobayashi: The corrections identified by Canada in document N3333 have been noted and fixed. The input regarding the bilingual version of the Sort standard will be taken up by the OWG-SORT meetina.

#### 6.2 Ballot results - FPDAM 4

Input document:

FPDAM4 Ballot Results including USNB as attachment A; SC2 Secretariat, SC02 N3960; 2007-09-12

Document N3330 contains the results of FPDAM 4 ballot. Of the 30 member bodies, 15 had approved (Germany, UK and USA had comments), 3 had disapproved (China, Ireland and Japan), 3 had abstained and 9 had not voted. The comments are addressed under item 12.1 on page 35.

#### 6.3 Ballot results - PDAM 5

Input document:

PDAM5 Ballot Results; SC2 Secretariat, SC02 N3959; 2007-09-12 3331

Document N3331 contains the results of PDAM 5 ballot. Of the 30 member bodies, 12 had approved (China, Iran, and India had comments), 6 had disapproved (Germany, Ireland, Japan, Korea (RO), UK and USA), 3 had abstained and 9 had not voted. The comments are addressed under item 12.2 on page 37.

#### 7 WG2 matters/housekeeping

#### 7.1 Roadmap snapshot

Input document:

Roadmap Snapshot; Uma; 2007-08-29

Dr. Umamaheswaran: Document N3306 is the latest snapshot of roadmaps. If there is any feedback please give them to me. The changes from the previous version are in the history section. Mr. Mike Ksar: This is an important document for contributors to WG2's work. Delegates are requested to take note.

# Relevant resolution:

# M51.40 (Roadmap snapshot):

**Unanimous** 

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3306) to the WG2 web site.

#### 8 IRG status and reports

### Input documents:

```
IRGN 1313: IRG Meeting #28 Resolution; IRG Rappoorteur; 2007-06-08
```

IRGN 1329: CJK\_Cv91; IRG Rappoorteur; 2007-07-18 3279

3280 IRGN 1330: Request to remove from CJK\_C PDAM5, Attachment A to N3280; Attachment B to N3280; IRG Rappoorteur; 2007-07-16

IRGN 1331: Request for change of Glyphs in CJK\_C PDAM5 plus Attachments A and B; IRG Rappoorteur; 3281 2007-07-16

IRGN 1335; Response to WG2 on the security issue of IICORE; IRG Rappoorteur; 2007-06-06 3282

Summary Report to WG2 by IRG Rapporteur.; IRG Rappoorteur; 2007-07-14 3283

Proposal to replace 11 KP source references to existing ISO/IEC 10646:2003; Committee for standardization 3285 of DPRK (CSK) - DPRK; 2007-07-03

Of the above documents, Dr. Lu Qin presented the IRG summary report document N3283, referring to the other documents for information.

Item 1 - Future meetings; for information to the delegates.

```
IRG #29
               San Jose, California (USA), 2007-11-12 ~ 16
IRG #30
               Kunming, Yunnan (China), 2008-06-09 ~13
IRG #31
               HKSAR, November 2008 (tentative, to be confirmed after obtaining approval from
authority)
IRG #32
               Busan (RO Korea), June 2009, (tentative, pending approval from authority)
IRG #33
               IRG is seeking host, November 2009
```

Dr. Lu Qin: IRG meetings 29 and 30 have already been endorsed by WG2. The rest can await the next WG2 meeting.

### Item 2 - CJK Ext. C follow up

Document N3280 has details. Several IRG members have sent in the same information as comment on PDAM5. Document N3279 contains updated Ext. C charts and source reference table.

Dr. Lu Qin: Based on review of CJK C in ballot PDAM5, 8 characters will be removed as a result of unification and 59 will be moved to CJK D for further discussion. Appendix A shows the 67 characters in question.

(Note: it was discovered by the project editor after the meeting that of the 67 characters mentioned in the title of the document only 63 have actually been removed. The Chinese ballot comment on PDAM 5 in document N3331 accurately reflected the situation but was thought to be incorrect during the meeting. The remaining four had only their T-source information removed. The relevant resolution M51.11 was revised accordingly.)

An additional 14 characters require glyph changes (see document N3281 and its attachments).

### Item 3 - Improvement of IRG Development Work

Dr. Lu Qin: This item is related to quality of work of IRG, per resolution IRG 28.4 (see document N3278). This is for information only.

#### Relevant resolution:

#### M51.35 (IRG Principles and Procedures):

Unanimous

With reference to item 3 in document N3283, WG2 invites IRG to develop a set of principles and procedures to guide their work, with due considerations for the current WG2 Principles and Procedures.

Item 4 - review and updating the unification rules in Annex S.

Dr. Lu Qin: Since the introduction of Annex S was 10 years ago, there have been many changes in the types of characters submitted to IRG, therefore, Annex S needs to be thoroughly reviewed. The review and possible extension include consideration of more unification examples, more disunification examples. unification/dies-unification errors, corrections to Annex S, etc.

Mr. Mike Ksar: The grandfather rule should still apply. There should not be any impact the existing unified characters.

# Relevant resolution:

#### M51.36 (IRG Annex S Review):

**Unanimous** 

With reference to item 4 in document N3283, WG2 endorses the IRG activity to review and feedback on Annex S of ISO/IEC 10646: 2003, without impacting already unified ideographs in the standard, taking into consideration the FCD ballot progression which starts in 2008-03.

Item 5 - related to progression of Ext. D, and Item 6 - related to progression of Old Hanzi are for information.

# Item 7 - IICORE and safe characters.

Dr. Lu Qin: WG2 N3282 is the feedback related to IICORE and safe characters. IICORE contains minimal variants - however, there is no quarantee of being safe characters (from security point of view) because character variants are culture and location dependent.

### Relevant resolution:

#### M51.37 (IRG Feedback on Security and IICORE):

**Unanimous** 

With reference to item 7 in document N3283, WG2 thanks the IRG for the feedback in document N3282. WG2 requests SC2 to forward this document to national bodies and liaison members for information.

### Item 8 - Proper names

Dr. Lu Qin: Using current unification rules, the variants required for personal names and to less extent place names cannot be encoded. IRG would like to investigate the issue, and potentially propose these characters for placement in a separate block.

#### Relevant resolution:

# M51.38 (IRG ideographs for Names):

**Unanimous** 

With reference to item 8 in document N3283, WG2 endorses the IRG activity to investigate and report back to WG2 on the issues and recommendations on ideographs for names of persons, places and the like.

# Item 9 - Source reference changes for DPRK

Dr. Lu Qin: DPRK had requested IRG to review their proposed changes to source referencing for CJK Ext. B. Document N3285 is the request from DPRK for changes to source referencing in CJK Ext. B. This is for WG2 consideration - see discussion under section 9.3 on page 16.

# Item 10 - Urgent need ideographs

Dr. Lu Qin: There are about 12000 characters (without unification) in a closed set. Because of the urgent need of many IRG members, IRG would like to commission a separate project to examine these and propose them in a separate extension. The name in IRG is called 'urgent need' to avoid being sequenced as Ext. D. Ext. E etc.

#### Discussion:

- a. Mr. John Knightley: Why not in Ext. E?
- b. Mr. Mike Ksar: Are these in the current IRG plan of work?
- c. Dr. Lu Qin: No there is no current project.
- d. Mr. Mike Ksar: Do you have enough expertise to work on all these extensions? Ext. C, D or E etc. With two IRG meetings a year? How long will these take? You need to unify these.
- e. Dr. Lu Qin: Ext. C is basically done work, though not completed. We can go back and do some home work and get back to you. These do have well defined IDS-s, they are already well defined.
- f. Dr. Umamaheswaran: Are you proposing no unification of these?
- g. Dr. Lu Qin: No. These will be still be unified.
- h. Mr. Michael Everson: Is there a count reliable enough to be able to update the roadmap?
- i. Mr. John Knightley: There are two parts to it --- preparation by the IRG members, and prioritizing the work.
- j. Mr. Masahiro Sekiguchi: These characters are not Ext. D candidates. I understand IRG wants to get these addressed. Are these more urgent that Ext. D?
- k. Dr. Lu Qin: I can get clarification. Some of the characters in Ext. D are not so urgent compared with the urgency of these 12000 characters.
- I. Mr. Mike Ksar: In your November meeting, please come up with a clarification as to what is in the different extensions, and prioritize the work.
- m. Mr. Masahiro Sekiguchi: I was trying to understand the urgency.
- n. Mr. Mike Ksar: The urgency is not interpreted here to mean encoding within 6 months.

#### Relevant resolution:

# M51.39 (IRG Urgent-Need ideographs):

Unanimous

With reference to item 10 in document N3283, WG2 requests the IRG to report back to WG2 with a more complete plan related to the identified 12000 'urgent need' ideographs, along with a prioritization of this work with respect to other existing IRG work items.

Item 11 - status of Source Visual Reference Information for Ext. B.

The information will be ready for review at WG2 M52.

#### Discussion:

- a. Dr. Umamaheswaran: Will these be ready to incorporate into the CD for the next edition. There will be a potential impact on CD schedule.
- b. Dr. Lu Qin: ROK has lost the previous information on fonts. They are trying to get it from another company. DPRK should be OK.

# 9 Scripts contributions – not under ballot

#### Input documents:

3316 Result of UTC Repertoire Review for future additions; Unicode Liaison Contribution; 2007-08-26

US input outside amendments 4 & 5; Michel Suignard; 2007-09-14

The above documents are for information and are referenced in discussions in different sections below.

Revised proposal to encode characters for Vedic Sanskrit in the BMP of the UCS; Michael Everson and Peter 3290 Scharf (editors), Michel Angot, R., Chandrashekar, Malcolm Hyman, Susan Rosenfield, B. V. Venkatakrishna, Sastry, Michael Witzel; 2007-07-26

The above revised proposal for Vedic Sanskrit is to be considered at the next meeting. Also, Old Yi and Batak scripts are carried forward to next meeting pending receipt of updated proposals (which were not received in time for this meeting).

# Imperial Aramaic script

#### Input document:

Preliminary proposal for encoding the Imperial Aramaic script in the SMP of the UCS: Everson: 2007-07-25 <u>3273</u> Proposal for encoding the Imperial Aramaic script in the SMP of the UCS; UC Berkeley Script Encoding Initiative - Michael Everson; 2007-08-25

Mr. Michael Everson: Document N3339 replaces preliminary proposal in document N3273. Imperial Aramaic is the mother of great many scripts. Scripts of India could have been derived from these. It was used in part of neo-Syrian Empire. Background information is given in the document. It is a historic script like others. Imperial Aramaic language can be written in this script or other scripts such as Latin and Hebrew etc. Several scholars prefer to use this script. It is a left to right script. Has one punctuation mark. All Phoenicians share the numbering system with Aramaic. 1, 2, and 3; and then 1+2, 1+3 etc. The character repertoire is stable; the names are what the scholars are using. The request is to accept the script for a ballot.

# Discussion:

- a. Mr. Mike Ksar: Is the term Imperial have any significance.
- b. Mr. Michael Everson: It is to avoid confusion with modern Aramaic. It is the official script of Imperial Aramaic.
- c. Mr. Peter Constable: UTC has reviewed and accepted a previous version.
- d. Mr. Michael Everson: The section sign at 10857 was hinted as questionable at the UTC.
- e. Ms. Deborah Anderson: SEI board had reviewed the earlier version except for the punctuation mark. Now we have confirmation from experts on the punctuation mark.

#### Relevant resolution:

### M51.13 (Imperial Aramaic script):

**Unanimous** 

WG2 accepts to encode in the standard 31 characters in code positions 10840 to 10855 and 1085F, in a new block 10840 to 1085F named Imperial Aramaic, with their names and glyphs as shown in document N3339.

#### 9.2 Two Phoenician numbers

#### Input document:

Proposal to add two numbers for the Phoenician script to the UCS; Michael Everson; 2007-07-25 **3284** 

Mr. Michael Everson: We have encoded some numbers for Phoenician. In their tradition, what they do is that they have 1, 2 and 3 and they group these to get others, rather than grouping a bunch of 1s together. The proposal in document N3284 is to include the numbers 2 and 3. There are other scripts which we will discuss that have a similar numbering system. Discussion:

- a. Mr. Mike Ksar: Any feedback from others?
- b. Mr. Michael Everson: UTC has discussed it. Our Iranian colleague agreed with it. I have not sent it to Hebrew list asking for feedback.
- c. Mr. Peter Constable: UTC did review these and have accepted these.
- d. Dr. Umamaheswaran: It makes sense to accept these.

#### Relevant resolution:

# M51.14 (Phoenician numbers):

**Unanimous** 

With reference to document N3284, WG2 accepts to encode the following 2 characters:

1091A PHOENICIAN NUMBER TWO

1091B PHOENICIAN NUMBER THREE

with their glyphs as shown on page 5 in document N3284.

# 9.3 Replacing 11 KP source references

#### Input document:

Proposal to replace 11 KP source references to existing ISO/IEC 10646:2003; Committee for standardization of DPRK (CSK) - DPRK; 2007-07-03

Dr. Lu Qin: Document N3285 requests for change in the source reference mapping for 11 code points to be changed for KP1 sources from DPRK.

#### Discussion:

- a. Mr. Michel Suignard: Is there any effect on any of the Ext. C work?
- b. Dr. Lu Qin: No.
- c. Mr. Michel Suignard: Is there any indication of the time constraint on this? We are changing source references for Ext. C. Can we do this at the same time? PDAM 5 is OK?
- d. Dr. Lu Qin: IRG has endorsed this document. PDAM5 is fine with us.
- e. Mr. Michel Suignard: Typically we should not be changing these; since these change the identity of the character.

#### Relevant resolution:

M51.9 (Update to 11 KP source references)

Unanimous

WG2 accepts to update the KP1 source reference mapping for 11 code points per document N3285.

# 9.4 Nüshu script

#### Input documents:

2287 Proposal for encoding Nüshu in the SMP of UCS; China NB; 2007-08-13

3322 Comments on Nüshu Proposal by the Chinese NB N3287; Debbie Anderson; 209-09-08

Reply to N3322 on Nüshu Proposal; China NB; 2007-09-16

Presentation deck on Nüshu; China; 2007-09-17

A power point presentation (see document N3340) was made by Ms. Zhu Cuifang. It is a script used only by women. It originated from Chinese characters. Kaishu is a regular Chinese script. Nüshu looks like an italicized version of Chinese characters. Some are reversed from Chinese - bottom to top or right to left and become italic. Some are changed italic from simplified characters. Other variants changed from Chinese characters were described. Nüshu is a syllabic script. About 400 syllables are sufficient to represent more than 400 syllables with 1200 tones included. Usage areas were outlined - for example, poems on a fan. A description of the process used to arrive at the proposal was given. The logic used to decide on basic characters and allographs was described. Frequency analysis is used to decide which form is coded. Several examples were presented. Criteria to decide when a character is not included as separate code point were described. 385 basic characters and 64 allographs are proposed 1B000--1B1C1. Ordering is by strokes and sound. Naming rules is similar to Chinese names; Nüshu-1B000 etc. Examples of where these are used were presented.

- a. Mr. Chen Zhuang: Document N<u>3287</u> was the original proposal; Document N<u>3337</u> is response to feedback from SEI in N<u>3322</u>.
- b. Mr. Michel Suignard: You have to change the name of the block; U-umlaut cannot be there. For character names, one should explore better naming convention than what is proposed. For example, a listing based on strokes, somewhat descriptive would be more useful.
- c. Ms. Zhu Cuifang: In document N<u>3337</u> -- a listing of all possible Nüshu characters, the number of strokes and its pronunciation in Chinese are given -- page 5 onwards.
- d. Mr. John Knightley: The names should be using English characters.
- e. Mr. Michael Everson: There was another source of Nüshu; the phonetic could be translated into Pinvin characters.
- f. Ms. Zhu Cuifang: If you name is based on phonetics versus other systems it could be a problem.
- g. Mr. Michael Everson: The syllabary does not belong to standard Chinese; it belongs to the user community. One could have Pinyin for standard Chinese and another one for local dialect.
- h. Ms. Zhu Cuifang: We need to choose only one.
- i. Mr. John Knightley: The nature of the script suggested is such that if more research is done there may be more characters.

- j. Ms. Zhu Cuifang: It is impossible to name all the allographs. Many of these are low frequency and are not in use any more. The higher frequency characters are chosen for encoding. We are not sure about the low frequency allographs.
- k. Mr. John Knightley: What is the primary purpose of the encoding?
- I. Ms. Zhu Cuifang: Based on the origin of the characters, we identified basic characters, we chose some allographs for encoding.
- m. Mr. Michael Everson: What are these used for?
- n. Ms. Zhu Cuifang: It is a living script. The local government is preparing a new text book. We need the coding for doing IT for these scripts. They want to protect these scripts.
- o. Dr. Lu Qin: I did read recently that the last live woman using this script is dead. It is also reported that the script is being taught in schools. It is kind of confusing. Are these being taught to only women or men also?
- p. Ms. Zhu Cuifang: The local govt cares more about it. They have made new text book to teach local children. They want to preserve the heritage. They want to include it in the world heritage script.
- q. Dr. Lu Qin: Are they taught in schools to boys? The report and picture I saw was only of girls.
- r. Mr. Chen Zhuang: Our expert confirms that boys and girls are learning.
- s. Ms. Deborah Anderson: SEI had comments in document N<u>3322</u>, and China in document N<u>3337</u> had given some feedback. The presentation was useful. I would like the presentation charts be included in the WG2 register.
- t. Mr. Michael Everson: I will add it to document register.
- u. Mr. Mike Ksar: What do you want WG2 to do with this proposal? Is this an initial proposal for national body feedback?
- v. Mr. Chen Zhuang: This is a formal proposal from China. It is up to WG2 to decide; perhaps to include it in the next amendment. If people have questions on it we can discuss it.
- w. Mr. Mike Ksar: Then we can pick it up at the next WG2 meeting.
- x. Mr. Michael Everson: Ireland thinks that there is more work to be done. There is need to reconcile the number of characters. We have been in correspondence with China.
- y. Mr. John Knightley: UK body would echo that. There were some specific areas to be addressed. Some clarifications are needed in the lists provided.
- z. Mr. Peter Constable: The UTC has not reviewed this document. It is not complex in the sense of Indic, but it is complex in terms of East Asian unification.
- aa. Mr. Masahiro Sekiguchi: In the past Japan had a women script also, but it is dead and gone. Japan has no official position on this script at this time.
- bb. Mr. Mike Ksar: It sounds like there are about 400 characters selected from a larger set. There was a selection process.
- cc. Mr. Michael Everson: We do have a font. But do we have permission from the font owners to use the font?
- dd. Mr. Chen Zhuang: We will investigate the permission for font.

# Relevant resolution:

M51.22 (Nüshu script) Unanimous

With reference to documents N3287, N3322, N3337 and N3340 on Nüshu script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.5 Samaritan alphabet

#### Input document:

<u>3291</u> Preliminary proposal to add the Samaritan alphabet to the BMP of the UCS; Michael Everson and Mark Shoulson; 2007-07-27

Mr. Michael Everson: Samaritan is related to Phoenician. It is also related to Hebrew but from a different branch. There is no controversy about the base letters. It uses a number of different points; uses different sizes of these points for short and long. These are also not controversial. There are two marks in the word begin position. The proposal in document N3291 is to use a modifier letter at the beginning of a word and use combining mark at other positions. There are similar marks in other languages. There are differing opinions on this proposal. Not sure how to arrive at a consensus on these. The word separation point is another controversial item. This needs discussion.

#### Discussion:

- a. Mr. Mike Ksar: Being a preliminary proposal, it needs further discussion.
- b. Mr. Michael Everson: It needs further discussion or an ad hoc.

#### Relevant resolution:

#### M51.23 (Samaritan alphabet)

**Unanimous** 

With reference to document N3291 on Samaritan alphabet, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

#### 9.6 Javanese script

# Input documents:

- Preliminary proposal for encoding the Javanese script in the UCS; Everson; 2007-07-31 3292
- 3319 Proposal for encoding the Javanese script in the UCS; SEI - Everson; 2007-09-10
- 3329 Javanese government support for encoding the Javanese script; Michael Everson; 2007-09-13

Mr. Michael Everson: Document N3292 contained a preliminary proposal. It went to experts in Java who have been busy on it for almost a year. I was there last week to discuss any modifications needed. We travelled to 3 different cities and discussed with experts. Document N3319 lists the script experts who attended various seminars. They are also listed in the proposal summary form. Much of the script is not controversial. It is a Brahmi-based script. It does not have any sequences like in Balinese. The Javanese wanted a simpler encoding model similar to Cham. It is more concise than Balinese. Javanese needed less number of columns. It has the digits, many of which look like the alphabet letters -- 7 out of 9. They use punctuation marks around these when used as numbers. Document N3329 is a supporting document from the Head of the language Centre, Ministry of national Education. The request is to accept these and place it on an amendment at this meeting. There are no known controversial items on this script. Balinese went straight into an FPDAM to synch with Unicode 5.0. We will have 18 months to 24 months to review Javanese properly.

- a. Ms. Deborah Anderson: SEI sponsored this. We have not received feedback from the advisory board. So will not support going to an amendment at this stage.
- b. Mr. Peter Constable: The standard procedure for complex scripts such as these is to give it a more review. It is not like Balinese which had some review by UTC experts.
- c. Mr. John Knightley: I think Mr. Michael Everson said that there will be 18 months to review; would this be not sufficient?
- d. Mr. Michael Everson: Javanese experts have been working on this for almost a year, and would prefer not to go through an additional 7 months' delay. Document N3319 is more mature proposal versus N3292 which was preliminary.
- e. Mr. Mike Ksar: We have a feedback from SEI that the board of SEI needs to review this before we can go ahead.
- Mr. Michael Everson: The user community for this script is extremely anxious to go ahead with this proposal early. We could have an ad hoc and discuss any technical issues at this meeting to enable us to place it on an amendment at this meeting.
- g. Mr. Mike Ksar: There are concerns from two experts at this meeting that this is not ready for an amendment at this time. I do not hear others supporting the inclusion at this time. Document N3292 was proposed as a preliminary proposal and national bodies have not had a chance to
- h. Mr. Michael Everson: We have accepted proposals like these with other scripts and processed them with user's requirements in mind.
- Mr. Tatsuo Kobayashi: We have processed many similar scripts in the past into PDAMs.
- Mr. Masahiro Sekiguchi: I am not an expert on this topic and cannot evaluate this proposal. I am not objecting to this proposal. Based on past experience with this kind of proposal I am comfortable going ahead with this into an amendment.
- k. Mr. Michael Everson: I would like to point out that Javanese script has been presented to Unicode through the pipeline since 1993. It was revised in 1997. I compared that proposal with the

- document presented. This proposal is not very new. I am confident that this script is stable enough.
- Mr. John Knightley: If it is put on the next amendment would the time be sufficient to get proper review. The nature of the script is well known, unlike many other scripts. I would agree with Japan that it seems to be a reasonable request to go ahead in an amendment.
- m. Mr. Mike Ksar: Question to SEI -- if your admin board has an issue with the topic, and if it is included in an amendment, what concerns you may have?
- Ms. Deborah Anderson: There is potential question on the encoding model. I don't have the issues that were expressed at hand.
- o. Dr. Umamaheswaran: I don't have any problems with us going ahead with the proposal into a next PDAM giving us an opportunity to comment on it. The Javanese community has expressed interest in the subject and the script seems to be stable enough. If there are technical problems with it, we can pull it from the amendment.
- p. Mr. Tatsuo Kobayashi: I would like to ask the experts to request the Indonesian national body to ballot yes or no on SC2 ballots, now that they are P members. I would like them to participate actively in the Javanese discussion.

Further discussion on the progression was delegated to an ad hoc. There was no consensus in the ad hoc to progress the document in an amendment at this meeting. The proposal will await further review and feedback.

#### Relevant resolution:

# M51.24 (Javanese script)

**Unanimous** 

With reference to documents N3292, N3319 and N3329 on Javanese script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

#### 9.7 Book Pahlavi script

#### Input document:

Preliminary proposal to encode the Book Pahlavi script in the BMP of the UCS; Michael Everson, Roozbeh 3294 Pournader, and Desmond Durkin-Meisterernst; 2007-07-30

Mr. Michael Everson: This script is one of the most difficult to work with. The Iranians ended up using Avestan and stopped using this script. The repertoire is well understood. But the implementation of the script escapes us. Examples show different ligatures are formed with same base letters. The process is not well understood. It is in the roadmap. It is a preliminary proposal and we request national body feedback.

# Relevant resolution:

# M51.26 (Book Pahlavi script)

Unanimous

With reference to document N3294 on Book Pahlavi script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

#### 9.8 Parthian, Inscriptional Pahlavi & Psalter Pahlavi

#### Input document:

Proposal for encoding the Inscriptional Parthian, Inscriptional Pahlavi, and Psalter Pahlavi scripts in the SMP 3286 of the UCS; Michael Everson and Roozbeh Pournader; 2007-07-25

Mr. Michael Everson: Three different small scripts related to Avestan are in the proposal document N3286. All are Right to Left.

Inscriptional Parthian uses 7 ligatures, but these are not obligatory. There is a diacritical mark also.

Inscriptional Pahlavi has its own set of numbers - 1, 2, 3 and 4. Compared to Imperial Aramaic, the number 4 is additional.

Psalter Pahlavi is different. It has joining behaviours; with numbers having special joining behaviours. Numbers can join with letters. Examples are given. Sa and Sha have same shapes. Sha will attach but Sa will not. The UTC had reviewed this. There is an open question on punctuation and is not resolved. We had proposed two combining marks which could be used by themselves or with a full stop etc. Examples in figures 10 and 11 show the usage of these marks. The dots above or below are shown in different positions. We did not have enough opportunity to discuss these. There was a suggestion to use the European dots. But the interaction behaviour is different. Syriac script is related to this and that has some spacing skewed dots.

#### Discussion:

- a. Mr. Michel Suignard: I am not comfortable with not having access to the relevant documents. I only have previous version of the document, and don't know the difference between the older and newer one.
- b. Mr. Michael Everson: The R version had minor updates from the older version. There is no change to the character repertoire.
- c. Mr. Peter Constable: The UTC had reviewed an earlier version of the document. We had accepted Parthian and the Inscriptional Pahlavi. Psalter Pahlavi needs more explanation related to the punctuation mark.
- d. Mr. Michael Everson: I am OK with the Psalter Pahlavi being for further study. The other two should be for a future ballot.

#### Relevant resolutions:

#### M51.15 (Inscriptional Parthian):

Unanimous

WG2 accepts to encode in the standard 30 characters in code positions 10B40 to 10B55 and 10B58 to 10B5F, in a new block 10B40 to 10B5F named Inscriptional Parthian, with their names and glyphs as shown on page 18 in document N3286.

# M51.16 (Inscriptional Pahlavi):

**Unanimous** 

WG2 accepts to encode in the standard 27 characters in code positions 10B60 to 10B72 and 10B78 to 10B7F, in a new block 10B60 to 10B7F named Inscriptional Pahlavi, with their names and glyphs as shown on page 19 in document N3286.

#### M51.25 (Psalter Pahlavi script)

Unanimous

With reference to document N3286 containing a proposal on Psalter Pahlavi script, WG2 invites national bodies and liaison organizations to review and provide feedback on Psalter Pahlavi script to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

#### 9.9 Old South Arabian script

#### Input documents:

Proposal to encode the Old South Arabian script in the SMP of the UCS; Everson & Yacob; 2007-08-29 3309 Proposal to encode South Arabian Script - comments on n3296; Sultan Maktari, Kamal Mansour; 2007-07-30

Ms. Deborah Anderson: Document N3309 is a proposal by Messrs. Sultan Maktari and Kamal Mansour. The proposal identifies many issues about names and order. We are still awaiting user community feedback - it is in the process.

Mr. Michael Everson: There is a revised version of document N3296R. I have looked at N3309 and have contacted Mr. Kamal Mansour. I had worked with the script earlier. There is some duplicate information. The two documents are complementary. We felt that the Arabic names etc are not relevant. It is called South Arabian but it is not Arabic. It is closer to Ethiopic. Arabic speaking scholars may use Arabic names to refer to these characters. We feel more Ethiopic looking shapes and names are more appropriate. The South Semitic alphabetical order is what we propose.

# Relevant resolution:

# M51.27 (Old South Arabian script)

**Unanimous** 

With reference to documents N3296 and N3309 on Old South Arabian script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to work with the US national body and submit a revised proposal incorporating the feedback for consideration at WG2 meeting

# 9.10 Tangut ideographs

# Input documents:

3297 Proposal to encode Tangut characters in UCS Plane 1 and Charts (in annexed files); Unicode – Richard Cook; 2007-08-12

3307 Tangut – Informational Background; Richard Cook; 2007-09-01

Response to UC Berkeley's proposals on Tangut; China NB; 2007-09-16

More on Tangut; Richard Cook; 2007-09-17

Ms. Deborah Anderson: Please refer to document  $N\underline{3297}$ . Tangut is an extinct language from China. It is a unique writing system and has no overlap with CJK. Three different sources are provided and document  $\underline{3297-A}$  shows the mapping. A set of 5910 characters is proposed. The UTC has reviewed this proposal and considers it to be mature. I encourage ongoing cooperation between the experts and with the author. Document  $N\underline{3307}$  has the background information.

Document N<u>3338</u> has the response from China. Chinese Tangut expert presented. We reviewed the N<del>3343</del> and have feedback.

#### Discussion:

- a. Mr. Chen Zhuang: We discussed the item with Ms. Deborah Anderson. We have some points identified - regarding the fonts and getting some corrections. We are willing to work with the author Mr. Richard Cook and other experts at the next meeting.
- b. Mr. John Knightley: UK is pleased to accept that it is important script. A section on radicals is missing from the current proposal.
- c. Mr. Michael Everson: We had seen the previous version. The current document is far superior to what we have seen earlier. Mr. Richard Cook has done a good job. Myself and Mr. Andrew West are also looking at the radicals. There are about 6000 characters; we have some questions and comments on the proposal. We are already in touch with the author. We are looking forward to meeting on this subject at the next WG2 meeting.
- d. Ms. Deborah Anderson: I do have some feedback from Chinese experts.
- e. Mr. Peter Constable: The UTC had reviewed this and considered it mature. Further comments are welcome and we can certainly look at these.

# Relevant resolution:

M51.28 (Tangut script)

**Unanimous** 

With reference to documents N3297, N3307, N3333 and N3343 on Tangut script (also known as Xi Xia script), WG2 invites national bodies and liaison organizations to review and provide feedback to the US national body and invites the US national body to work with Chinese, Irish and UK national bodies and invited experts and submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.11 Orkhun script

### Input document:

3299 Orkhun – Updated; China – Wushour; 2007-07-15 3357 Feedback on Orkhun N3299; Everson; 2007-09-20

Professor Wushour Silamu: Document N3299 is an update to the earlier proposal. We had introduced Orkhun script in Tokyo and Frankfurt meetings. We had input from foreign experts as well as Chinese experts. Pages 7 and 8 show a total of 71 characters with their names and glyphs. Proposed code positions are from 10C00 through 10C40 in a new block called Old Turkic.

- a. Mr. Michael Everson: After the Frankfurt meeting we got in touch with a number of experts outside of China including French expert Professor Marcel Erdal. He pointed to several other sources and Professor Wushour Silamu was not aware of those. Based on those sources, updates have been made to the earlier proposal from China. The updated proposal is more mature now and it is a superset of what China had originally proposed. I am preparing an updated contribution and it will contain additional information and scanned examples etc. The code chart presented by Professor Wushour Silamu is what the ad hoc arrived at as consensus. The request is to put this in a new amendment.
- b. Mr. John Knightley: If a new document is ready by tomorrow we will be able to take a decision.
- c. Mr. Michel Suignard: I am glad to see progress made so far. I would like to see the updated information before we can take a decision.

- d. Mr. Michael Everson: Document N3357 is the revised proposal .. For the code table refer to previous document. Key to progress was based on additional information. Five missing characters were added to those in Professor Wushour Silamu's proposal. The updated table includes the addition based on input from Professor Marcel Erdal. It is from Old Turkic grammar. I am satisfied that the proposal is mature enough to go ahead in a ballot giving two rounds of ballot. The final code table was put together at this meeting.
- e. Ms. Deborah Anderson: Professor Marcel Erdal and other experts have not seen the proposal put together at this meeting. I think it needs more review.
- Mr. Peter Constable: The UTC has not seen this yet; we would like more review.
- g. Mr. John Knightley: The repertoire is substantially stable with the five additions; we will not object to put in an amendment.
- h. Mr. Michel Suignard: The proposal has been presented several times. Every time it has been changed. I need more chance to do a proper review. I am satisfied that it seems to be very sound, butt I need a chance to do proper review.
- Mr. Mike Ksar: One more round of review will not hurt it.

#### Relevant resolution:

# M51.29 (Old Turkic script)

**Unanimous** 

With reference to documents N3299 and N3357 on Old Turkic script (also known as Orkhun script), WG2 invites national bodies and liaison organizations to review and provide feedback to SEI and invites SEI to work with the Chinese national body and submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.12 Addition of six CJK Ideographs

#### Input document:

Proposal to encode six CJK Ideographs in UCS; Japan NB; 2007-09-07 <u>3318</u>

Mr. Masahiro Sekiguchi: 6 ideographs from a Japanese TV broadcasting standard are proposed in document N3318. They revised the standard recently and they introduced the UCS based encoding. They had a special coding called Gaiji and they used ISO 2022 based code extension techniques. Some Gaiii characters are already in UCS. Japan examined the Gaiii standard and found 6 ideographs are missing. Out of 6 two are considered as independent unified CJK. The four are considered as variants of others. However Gaiji standards require a distinction with others, and hence these are proposed as compatibility ideographs. Japan proposes to include these in Amd. 5.

- a. Mr. Michel Suignard: I am OK with the document from Japan.
- Dr. Lu Qin: IRG has not reviewed this document. The two characters proposed to be added, we cannot unify these with others. It should be OK.
- c. Mr. Masahiro Sekiguchi: These are base standards of some TV broadcasting standards. They are reporting to a different Japanese standards body than JIS. We came to know of ARIB only recently. The TV set vendors are active amending the standard -- have an urgent requirement to get implementation by next spring.
- d. Dr. Lu Qin: I sympathize with the technical need for these characters. I do understand the urgency. Since IRG has not seen it, the normal procedure would be to submit to IRG.
- e. Mr. Mike Ksar: Japan is encouraged to submit this to IRG.
- Mr. Masahiro Sekiquchi: The requirement came to us after the last IRG meeting. I can submit to the next one.
- Mr. John Knightley: As it stands, the amount of information provided on the characters is not sufficient - missing are pronunciation, meaning etc.; not so much their proof of existence. This topic was discussed in the IRG; since many characters coming into IRG are not to be found in dictionaries more information is requested. That will help in placing these characters in CJK symbols block or elsewhere etc.
- h. Mr. Masahiro Sekiguchi: We cannot provide additional information; these characters are from a previous version of the ARIB standard. You may say they are just symbols, and I would have no objection. The important thing is that these are encoded using ISO 2022 encoding, and are in use. TVs in Japan use these.

- i. Mr. Chen Zhuang: Having read the background info of these six, the reason for including these should be included. My concern is that if an IRG member submits ideographs directly to WG2 it is not a good example for other IRG members. My suggestion is that these should be sent to IRG. I need some more information about the urgency of implementation.
- j. Mr. Michael Everson: These are in TV; so when someone looks at these, what do these mean?
- k. Mr. Masahiro Sekiguchi: These characters -- per my guess -- are for proper names. We already asked ARIB, they don't know what these are. We can identify five out of six from these; the sixth one we don't know.
- I. Mr. Michel Suignard: These characters are already in use out there. Similar to the HKSCS, which ended up in the PUA. We should not encourage that direction at all. The Japan situation is potentially encouraging the end user to PUA. We should get these into the regular coding area at the earliest. There are a few hundred or so symbols in similar situation.
- m. Mr. Peter Constable: As to whether these are symbols or ideographs, being part of a larger set it may be reasonable to assume these are not symbols.
- n. Mr. John Knightley: When we don't know the meaning of a character, it poses difficulty when new similar characters come along and we cannot evaluate. If it is in the compatibility area it may be different story.
- o. Professor Kyongsok Kim: We have similar concerns about the procedure; it should be submitted to IRG first. The first two should be considered by IRG. The other four could be discussed in WG2, from procedure point of view. For expediency one could encode these as symbols.
- p. Mr. Michael Everson: Procedurally, one could expect additional delays through IRG etc. With regards to the urgency is it urgent for Japanese industry; can we wait till April 2008 for code position allocation? We could respond in WG2 if it would avoid the delay through IRG.
- q. Mr. Michel Suignard: In the past we have done some CJK additions; we always went through IRG for their approval. We did get some green light from the IRG for some US submissions. The only concern would be the timing. Can we get a green light from IRG at the earliest, possibly as comments on the ballot?
- r. Dr. Lu Qin: We did go through IRG and it was in Unicode that we proposed to add the HKSCS. I do sympathize on the same basis as to the urgency. As to Mr. John Knightley's comments, quoting HKSCS examples, we had past characters which were academically the wrong ones, but were in use already. These would be exceptions -- to get meanings etc. especially since these are in an existing standard.
- s. Mr. Mike Ksar: You can pursue the question also from the IRG point of view.
- t. Mr. Masahiro Sekiguchi: On the procedure concerns some members stated the opinion that the submission to WG2 without showing to IRG is not regular. In the past most of the characters even though they were shown to IRG members first, some CJK unified proposals were made to WG2. For example the Adobe ideograph submission was sent to WG2 and to IRG for information. Technically the good process would be to send the two unified CJK ideographs to IRG, and can be merged to extensions or patches etc. If there is urgency there is no harm in sending to WG2.
- u. Mr. Mike Ksar: There is nothing wrong bringing the topic to WG2 before sending to IRG. WG2 can send the proposals to IRG to get their input, for any additional concerns. Due to the urgency it was brought here. We could get more information in answer to questions from the UK. We could include these six in an amendment and seek IRG opinions.
- v. Mr. Michel Suignard: WG2 is perfectly within its role to add CJK ideographs to include in the amendment, especially in the areas of urgent requests. Of course IRG should be consulted for their input. Some leeway exists for us to include these in extensions other than Ext. C or D etc.
- w. Mr. Masahiro Sekiguchi: As to the schedule question, the request is to get the code point is as early as possible. It need not be in the officially published standard, but would like to have provisional code positions that they could use. If these go into Amd. 5 and published next summer that timing is OK for them. If they go into Amd. 6 it would be inconvenient for them but not disruptive.
- x. Mr. Mike Ksar: We can discuss these in the WG2. Not everything has to come from IRG.
- y. Mr. Michael Everson: What would be the code positions?

z. Mr. Michel Suignard: 9FC4 and 9FC5 are proposed for ARIB 47 and ARIB 95 in the CJK Unified Ideographs. For the compatibility characters, FA6B, FA6C, FA6D and FA6E are proposed in the CJK Compatibility block.

Disposition: Accept for Amd. 5. IRG should review and provide feedback.

#### Relevant resolution:

# M51.10 (Japanese ARIB ideographs):

China - Abstention

Canada, Finland, Ireland, Japan, Korea (Republic of), Poland, UK and USA - Acceptance With reference to document N3318, WG2 accepts to encode the following:

2 CJK unified ideograph characters: 9FC4 (ARIB ID 47), 9FC5 (ARIB ID 95), and

4 CJK Compatibility ideograph characters: FA6B (ARIB ID 39), FA6C (ARIB ID 67), FA6D (ARIB ID 93), and FA6E (ARIB ID 105)

with their glyphs and compatibility mappings as shown in Table 7-11 in document N3318. Further, WG2 requests IRG to review and provide feedback on the above at its November 2007 meeting.

# 9.13 Old Lisu script

#### Input documents:

Proposal for Encoding the Old Lisu Script in the BMP of the UCS; China NB; 2007-08-29 3317

3323 Tables and Names - Fraser contribution N3317; Everson; 2007-09-11

3326 Fraser's Lisu orthography: Research notes toward a Unicode encoding; Richard Cook; 2007-09-02

Mr. Mike Ksar: We have a Lisu expert here from Thailand, Mr. David Morse, attending specifically for this topic. I would like to invite China to present the contribution N3317.

Mr. Chen Zhuang introduced Mr. Adrian Cheuk to present the script.

Mr. Adrian Cheuk: The Old Lisu script is also known as Fraser. It is used by about a million people in Myanmar. It is a relatively straight forward without any specific rendering behaviour. The biggest issue is to whether this should be unified with Latin or not. We propose that this be disunified from Latin. Old Lisu has no casing -- whereas Latin is bicameral. Introducing lower case in Lisu is meaningless for Lisu readers. If we tailor the applications etc. it is theoretically possible to suppress the lower case letters. However, it is unlikely to suppress these for minority users. Only some members of 40 letters are candidates for unification. Because of case folding stability, if we unify and introduce capital versions of Old Lisu letters, we are forced to introduce lowercase versions of these - for example, turned lower case lower letter j - which are non existent. Creation of such lower case Latin letters will lead to confusion with similar looking other lowercase letters -- turned n versus u etc. We had precedence in Cherokee block with Latin-looking characters - which were disunified. The disunification also facilitates use of tone marks that are proposed in the proposal. There is a proposal summary form at the end of the document. The request is to include in the earliest possible amendment. Fonts are available to be provided by Mr. David Morse. It is contemporary. 48 characters are proposed.

- a. Mr. John Knightley: UK would like to make the observation that the script is well known and established. There is no controversy about the repertoire. It is reasonably mature even if it is the first time presentation here. The UK panel supports going ahead with the proposal. It should not be unified with Latin. There is a possibility that some community outside of Myanmar may find some characters that are missing.
- b. Mr. Peter Constable: I need clarification from China as to what is requested. My personal opinion is that concerns about unification are legitimate. Casing is a fundamental operation in text processing and can make Lisu incomprehensible if unified with Latin. From the UTC point of view, there have been correspondences among experts in UTC, though this document has not been presented there. The UTC would like to see this document be reviewed and studied further giving time to understand and explore the nuances till the next meeting. Suggest we get national body feedback.
- Mr. David Morse: I appreciate the opportunity to be here. The typhoon Waifa almost prevented this trip. In Thailand and Burma and even in India there are about 200,000 Lisu people. They have been active in producing literature -- agricultural, hymns, religious etc. I have designed true type font as early as 1992. The one question users in Myanmar and Thailand are asking is

related to coding unification or disunification. If Fraser had decided to use non-Roman letters, would all these characters be included? If Fraser had used unique letters rather than marks, is there a question on which would be needed? For example, the characters that look like a period and a comma. In the early mechanical typewriters -- I have manufactured 22 mechanical typewriters personally -- would like to have a single keystroke for each tone. If Fraser had used different symbols for different strokes these may be used as well. There are six basic tones and all other combinations are made from these six. Is there a way to include two-tones as unique tones?

- d. Mr. Michael Everson: Even if they are separately encoded, a single keystroke can always produce the desired results. Even if we encode them we need to get equivalent strings; two tones can be either single or two in a row. Underlying encoding should be invisible.
- e. Mr. Mike Ksar: The input method is part of an implementation, rather than part of the standard. Two keystrokes can be combined to give a single character etc. using combinations.
- Mr. Peter Constable: Even if it does not have an impact on encoding the input method related questions should be considered. I would encourage Mr. David Morse to provide a contribution.
- Mr. Erich Fickle: These things that look like punctuation marks, the tone letters have different behaviours compared to the punctuation marks. Even though the glyphs look alike their behaviour is different.
- h. Mr. Mike Ksar: Their properties are different.
- Mr. John Knightley: Are there any variations of the script for use in different languages / dialects?
- Mr. David Morse: Being mono-syllabic, it is easy to learn. To my knowledge, there is a group of people called Naga who use the Lisu script. There is also group called Lemai -- different kinds of Lemai. Another group called Lisu, they started using two consonants to make their own sounds. The alphabet is stable, but usage may vary among the different users of the script / dialects.
- k. Mr. Mike Ksar: I do not see the kind of information that was just brought up in the contribution. I would encourage these be added.
- Mr. David Morse: The Myanmar Shan people are using the alphabet to write the Shan language. It looks strange to a Lisu reader, but it sounds correct.
- m. Mr. Michael Everson: From the point of view of the name of the script -- 'Old' Lisu begs the question of how old is Old? Ancient? New? In the areas in use, names of the inventor Fraser or Myanmar Pollard etc. are also known. For people in the outside world, the access may be available only using the terms Pollard and Fraser etc.
- n. Mr. David Morse: Lot of people in Myanmar and Thailand are well educated and are very protective of their language. If term called 'Old' is problematic, we could simply call it Lisu. People in Myanmar always had respected the inventors; Mr. Sara Ba Thaw - a contributor to the script had attributed this to Fraser. How would taking out the 'Old' in the name sound?
- o. Mr. Michael Everson: The English names are Fraser etc.
- p. Mr. David Morse: People in Myanmar would acknowledge Fraser as the contributor / inventor to the script. I have seen a handwritten version of 1917. The order of the alphabet in that version is different from the current proposal. Plain Lisu is more acceptable. Fraser Lisu would also be acceptable. Lisu is written also in Pinyin or a Romanized version of the advanced Lisu to enable entering in Internet.
- q. Mr. Adrian Cheuk: The reason for the term Old is given in the proposal; item 1 under script name. The term Old Lisu has been in use in different circumstances and it always to point to the use of current proposal. Use of an author's name begs the question of how one can recognize the other co-inventors etc. The term used in China has been Old Lisu for many years.
- r. Mr. Peter Constable: Mr. Michael Everson mentioned that in the English speaking world people may not associated Lisu with Fraser. I am inclined to think that the people, who know this as Fraser, would know that it is used for Lisu / in the Lisu community. I don't have a particular problem in using Old Lisu as long as it is clarified.
- s. Mr. Adrian Cheuk: Around 1960 a New Lisu script was invented in China, using purely Latin letters, to indicate correct pronunciations etc. For this reason, we need to distinguish between the two.
- t. Mr. David Morse: One other possibility is to call it Original Lisu. For people outside of China, who are not exposed to the New (Pinyin version).

- u. Mr. Adrian Cheuk: The word 'Old' is a translation of the Chinese word. To follow the practice of naming of scripts in UCS, we chose the word Old; if there is a more appropriate word it is OK with
- v. Mr. Mike Ksar: How come the New script is not even mentioned in the contribution.
- w. Mr. Adrian Cheuk: We would be happy to add that information.
- x. Mr. Michel Suignard: There is a paragraph about interaction with European punctuations. Would like to know what these are used for.
- Mr. Adrian Cheuk: Question mark is for Question, Exclamation mark is for exclamation etc. These are already encoded.
- z. Mr. Michel Suignard: How do you make the distinction between Lisu punctuation and European punctuation? By context? I would like to know which specific punctuation marks are specifically used.
- aa. Mr. Adrian Cheuk: They look similar, but they are not the same. Language experts could do that.
- bb. Mr. Michel Suignard: On word breaking need some clarification. A space is a cluster marker; you have not stated where a word break could occur etc.
- cc. Mr. David Morse: Word breaking has been a problem in Lisu it is almost impossible. Example A N (Ana- dog). Because it is syllable based. They put hyphens in proper names. Two letters of a syllable cannot be broken.
- dd. Mr. Michel Suignard: Similar to graphic based scripts. Is a Line break is prevented before a Lisu punctuation?
- ee. Mr. Adrian Cheuk: Correct. As to the European punctuations, we have a list of what has been identified to us so far.
- ff. Mr. Peter Constable: Word breaking mentions 'above set' ... clarify what is meant in the revised proposal.
- gg. Mr. Adrian Cheuk: Section 8, right above the sentence.
- hh. Mr. Peter Constable: What expectation among the national bodies or users in relation to identifiers, domain names etc.?
- Mr. Michel Suignard: Section 11 has it.
- Mr. Mike Ksar: As far as I can tell, the proposal needs one more round of review. An updated proposal would be needed. Mr. David Morse is requested to provide more information. Other contribution N3323 is from Mr. Michael Everson - names question. Document N3326 is from Mr. Richard Cook.
- kk. Ms. Deborah Anderson: Mr. Richard Cook has input based on consultation with Dr. Ken Whistler.
- Mr. Michel Suignard: One is going too far stating that no one is going to use these in IDNs. You cannot say that the script will be prevented from appearing there. The question of identifiers is broader than just IDN. For example, File Names.
- Mr. Michael Everson: Ireland is completely opposed to the notion that Lisu can be mm. disunified with Latin. This is a separate script.- the question of disunification does not even arise.
- nn. Mr. Mike Ksar: I invite China to send an updated contribution addressing all the input from this meeting, and in consultation with other experts on the topic.

#### Relevant resolution:

M51.30 (Old Lisu script)

**Unanimous** 

With reference to documents N3317, N3323 and N3326 on Old Lisu script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.14 North Indian accounting signs

### Input documents:

Proposal to encode North Indian Accounting Signs; Anshuman Pandey; 2007-05-15 3312

3316 Result of UTC Repertoire Review for future additions: Unicode Liaison Contribution: 2007-08-26 Towards an Encoding for North Indic Number Forms in the UCS; Anshuman Pandey; 2007-07-31 3334

Ms. Deborah Anderson: Document N3312 has the proposal for North Indian Accounting signs. 13 characters are proposed with the background and examples. Document N3334 is asking for name change to North Indic, and have only 10 characters. The new code positions are in the BMP. Discussion:

- a. Mr. Peter Constable: UTC has considered the proposal and document N3334 is the result of the discussion in the UTC.
- b. Mr. Mike Ksar: Was there a reason for inclusion in BMP?
- Mr. Michael Everson: Irish national body is satisfied with the rationale and the proposed code positions.

Disposition: Accept for a future amendment.

#### Relevant resolution:

# M51.17 (Common Indic Number Forms):

Unanimous

With reference to documents N3312, N3334 and N3316, WG2 accepts to encode 10 characters in code positions A830 to A839 in a new block A830 to A83F called Common Indic Number Forms with glyphs as shown on page 14 of document N3316.

# 9.15 Ganda Currency Mark in Bengali script

#### Input document:

3311 Proposal to encode Ganda Currency Mark for Bengali; Anshuman Pandey; 2007-05-21

US input outside amendments 4 & 5; Michel Suignard; 2007-09-14

Ms. Deborah Anderson: The proposed Ganda Currency Mark for Bengali is a historic character and is well documented. The rationale is given in page 1 section 1 of document N3311. Mr. Peter Constable: The UTC has accepted this character.

Disposition: Accept for a future amendment.

#### Relevant resolution:

# M51.18 (Bengali Ganda Currency mark):

**Unanimous** 

With reference to document N3311, WG2 accepts to encode: 09FB BENGALI GANDA MARK with its glyph as shown in document N3311.

# 9.16 North-eastern Yunnan Simple Miao script

#### Input document:

3335 Preliminary proposal for encoding the North-eastern Yunnan Simple Miao script; China NB; 2007-09-14

Mr. Erich Fickle: The Miao script is about 100 years old. It underwent a lot of changes and stabilized around 1936. In 1988 a reformed version was created, stabilizing many of the characters and ways to distinguish sounds were added. It is hard to say how many users are for the script. For many years accessibility to the community was not easy; probably a half to a million people. In the West it was called a Pollard script after Samuel Pollard. There is a question about names. I would prefer Miao as the name of the script. There is also the notion of Old and new Miao. Simple Miao could be more appropriate. It is a very live script -- the 1988 style is seen in railway stations, road signs etc. There are two big concerns. The 1936 version -- the UTC's old proposal ignored the 1988 version. Today the 1988 version is taught in schools by the government. There are groups who claim that they prefer one form over the other, though both forms could be read by both the groups; however, it is encouraging. The government support for Miao is new. The users taught the scripts to each other. It is used in bilingual education classes -- Miao / Chinese. The proposal gets over the difficulty of choosing one over the other. They use the tones differently. The actual values of tones tend to drift around. But their categories stay the same. Eight different tone values are used in 1988 version versus five tone positions in 1936 version. It is spreading into minority groups; there are about 35 to 40 dialects of Miao; they cannot understand each other. By having both the tone systems in this, all the characters in 1936 are inside the 1988 version. The users of 1936 style would use a different font and the subset. Having invisible tone characters gives us the ability to save a lot of coding space. Alternatives are to have five positions and encoding each position. That is not the way users view these. Another issue is that there are initials and finals - they have marks on them which describe the sound. They are less than a character, they do not stand alone. There is a strong urge to decompose these out and use it at a below the character encoding level. For example 44, 45, ... etc. all look like an L with different Marks - showing stressed, aspirated etc.; L with an apostrophe looking thing - it is no L-apostrophe!!

#### Discussion:

- a. Mr. Mike Ksar: The request is for 139 characters in the BMP.
- b. Mr. Michael Everson: I have a proposal for more characters -- there is a model issue.
- c. Mr. Peter Constable: Would it cause problem with apostrophe following L .. to save some coding space?
- d. Mr. Michel Suignard: The saving space for a few tone marks like the apostrophe mark etc. is arquable.
- e. Mr. Michael Everson: It is going to be a question of presentation etc. We need to ad hoc.
- f. Mr. Michel Suignard: We are going down a slippery slope here. We may end up in potentially encoding every Latin digraph!! Encoding as a single versus two characters may not be of significance. From the IDN point of view, the Latin look-alikes are a nightmare. Especially for a living script, there is a major confusability aspect.
- g. Mr. Dae Hyuk Ahn: The tone value markers at 93--97, look very much like the Times Roman characters - with Serifs.
- Mr. Michael Everson: I have seen these without their Serifs.
- Mr. Erich Fickle: These are what I have seen printed.
- Ms. Deborah Anderson: 0090 has no glyph?
- k. Mr. Erich Fickle: There are different sets of tone values -- values 1 through 6 are used.
- Mr. Peter Constable: At high level you explained two different styles covered by the proposal. The main difference is tones?
- m. Mr. Erich Fickle: That and many new characters.

#### Relevant resolution:

# M51.31 (Simple Miao script)

**Unanimous** 

With reference to document N3335 on Simple Miao script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.17 4 religious characters in Tibetan block

# Input document:

Proposal to encode four religious characters in the Tibetan block (post meeting 50); Michael Everson, Chris 3268 Fynn, Peter Scharf, Andrew West; 2007-05-09

The preliminary Vedic Sanskrit proposal presented at M50 in Frankfurt had four religious symbols. These are separated out into this document. They are also used as map symbols in Japan. The proposed code positions are in the Tibetan block. These are also used in Buddhist literature. The request is for acceptance in a future amendment. The proposed code positions: 0FD5 to 0FD8; TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR...etc. from page 1 in document N3268.

#### Relevant resolution:

# M51.19 (Tibetan Religious symbols):

**Unanimous** 

With reference to document N3268, WG2 accepts to encode the following 4 characters:

0FD5 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR

0FD6 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR

0FD7 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR BZHI MIG CAN

0FD8 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR BZHI MIG CAN

with their glyphs as shown on page 1 in document N3268.

# 9.18 3 additional Malayalam characters

# Input documents:

Proposal to add three characters for Malayalam to the BMP of the UCS; Everson; 2007-08-17

Mr. Michael Everson: The rationale for three individual historic use characters for Malayalam are given in document N3295. Examples of use are given. Discussion:

a. Mr. Peter Constable: We have not seen the first two characters. The UTC had looked at another proposal for the Chillu YA which shows only one source of usage. We wanted to get more evidence. The second example is not really an evidence of usage.

- b. Mr. Michael Everson: This document was not looked at by UTC. I am satisfied by evidences for these little-used characters.
- c. Dr. Umamaheswaran: I would suggest getting feedback from Indic list / Kerala government sources in particular.
- d. Mr. Michael Everson: I have posted to Indic list and have some feedback regarding the three from Messrs. Cibu and Ganesan.
- Mr. Michel Suignard: My suggestion is to send the document for national body feedback till the next meeting.

#### Relevant resolution:

# M51.32 (3 Malayalam characters):

**Unanimous** 

With reference to document N3295 on 3 Malayalam archaic characters, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 9.19 Japanese TV Symbols

#### Input document:

**3341** Japanese TV Symbols; Michel Suignard, expert contribution; 2007-09-18

Mr. Michel Suignard: Document N3341 refers to ARIB standard on Japanese broadcasting. In addition to CJK ideographs it includes several symbols also. These can appear in plain text especially when computers are being used to display and process TV information. They tend to use the PUAs when these are not encoded. The document contains the full list of ARIB symbols - listed by their index in the ARIB standard. The description is the name in ARIB standard for the symbol. The comment / mapping column indicates if there is a clear mapping to an existing UCS code point etc. There are also symbols with Latin or Ideographic characters within a square. There are some circled characters.

#### Discussion:

- a. Mr. Mike Ksar: Why are these called TV symbols?
- b. Mr. Masahiro Sekiguchi: These are used in TV broadcasting for showing on a TV screen. They are used in information that is broadcast using Digital signal broadcasting.
- Mr. Michel Suignard: There are also some ideographs that are used as symbols. Several numbers with a period. There are some tiny ideographs - 70% in size of regular CJK ideographs. The ARIB standard does not really give information as to where these symbols are used or what they mean. Superscripted 2 and 3 but with double width, several multiple character sequences in a single cell etc. Bracketed and Parenthesized ideographs and other characters, and other kinds of symbols; several fractions including 0/3, and several weather symbols. I have provided some explanatory material in the document. The fonts exist and I was able to use them to prepare this presentation. These symbols have to be merged with other similar proposals for symbols. We can look at these for completing a set that may be in the standard. I would like have input what could be encoded or what should not be etc.
- d. Mr. Peter Constable: National bodies should examine and comment on the proposal whether we should encode some or all etc.

# Relevant resolution:

# M51.33 (Japanese TV Symbols):

**Unanimous** 

With reference to document N3341 on Japanese TV symbols, WG2 invites national bodies and liaison organizations to review and provide feedback to US national body and invites the US national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

# 10 Contributions on scripts and characters under ballot

# Input documents:

- Result of UTC Repertoire Review for FPDAM4 of ISO/IEC 10646:2003 and future additions; Unicode Liaison **3314** Contribution; 2007-08-26
- <u>3315</u> Result of UTC Repertoire Review for PDAM5 of ISO/IEC 10646:2003 and future additions; Unicode Liaison Contribution: 2007-08-26
- US input outside amendments 4 & 5; Michel Suignard; 2007-09-14 3321

The above are reference documents to supplement discussions in the following sections.

# 10.1 China NB comments on Lanna encoding in FPDAM 4

Input documents:

3313 3346 Comments on Lanna encoding in FPDAM4; China NB; 2007-09-06

Lanna ad hoc meeting 51; Ad hoc on Lanna; 2007-09-19

An ad hoc group was charged with considering the different contributions on the Lanna script. Several Chinese experts met with other WG2 experts. The project editor as the chair of the ad hoc had indicated that if there is no agreement. Lanna could be taken out of Amd. 4.

# Discussion:

- a. Mr. Chen Zhuang: There are too many issues that we need more time to discuss them. Since we don't have enough time at this meeting we prefer to take it out of Amd. 4.
- Mr. Mike Ksar: Can you give me an idea as to how much time you need? Will need to have document summarizing the issues?
- c. Mr. Adrian Cheuk: During the ad hoc meeting and later discussions, we tried to resolve all the issues. We did not receive comments from the authors before the ad hoc meeting. We did not have sufficient time to analyze the issues. Character names, script names, the repertoire and collation order are all being discussed. We arrived at some proposals to get modified script names, proposed naming updates etc. but were not able to arrive at a consensus.
- d. Mr. Michel Suignard: I propose we go ahead with updating the charts using the correct fonts. We can move it out of Amd. 4 and move it to Amd. 5. This will give the national bodies a chance for another technical ballot. I do understand there is no agreement on outstanding issues -- the best course of action is to keep what we have today with a correction to the fonts used on the
- e. Mr. Peter Constable: From the Unicode perspective since there is no consensus it makes sense to move Lanna to a post-Amd. 4 amendment.
- Mr. John Knightley: Would China clarify if they would be acceptable to keep the charts as is in Amd. 5? UK would like to make a note that the script is important and that the member bodies should make an attempt to arrive at a consensus.
- g. Mr. Mike Ksar: That is the editor's proposal. We appreciate the input from UK. We had an ad hoc in Frankfurt also, and we thought we had a consensus there also.
- h. Mr. Peter Constable: I would encourage the language experts from China to meet and try to understand all the concerns from all parties and appreciate the different view points. I would encourage language experts from China as well as language experts from Thailand to meet.
- Mr. Mike Ksar: If the experts on Lanna want to continue to discuss and arrive at a consensus before the end of the meeting we could adjust the resolutions accordingly. I would encourage continuing the dialog.
- Mr. Michel Suignard: If there are major changes then we still need to get back to pulling it out of Amd. 4. Minor changes could be accommodated -- but major changes will need another technical ballot. It would entail a 6 month delay. If it does not go into Amd. 4 we will have a little more flexibility in accepting more significant changes to the script.
- k. Mr. Peter Constable: In this regard, we believe if two new characters are to be added it may be OK. But major changes cannot be in Amd. 4.
- Mr. Michael Everson: We must have a list of all the problems and concerns listed before the end of this meeting. We also need input from China as to what their proposed solution to each problem is. We had two rounds of ballot on Lanna already -- we had made revisions to accommodate Chinese comments.
- m. Mr. Mike Ksar: This is what I asked in the form of the ad hoc report. It should contain the list of concerns and proposed solutions from China.

The ad hoc report was prepared as document N3346.

Mr. Adrian Cheuk: The ad hoc met and discussed the issues on the Lanna proposal. A number of technical issues were resolved. Outstanding issues and recommendations are given in the report.

# Some recommendations:

- Add a character SIGN LOLA HOY KONGNOT
- Change glyph for 1A68 VOWEL SIGN UUE, to prevent overlap with tone marks
- Rename script to TAI THAM, since Lanna does not reflect the user community in China.

# Two issues are outstanding:

- For about 22 characters, the names are in still open. China would like to change these names. These have not been reviewed by all experts.
- An additional character is identified and still needs review.

#### Discussion:

- a. Mr. Michel Suignard: My understanding that the character list was correct and the glyphs were incorrect.
- b. Mr. John Knightley: The problem was that there was no time to consider in the ad hoc.
- c. Mr. Peter Constable: The intention was not to imply that the names list was not correct. We received the correct set of charts only later.
- d. Mr. Michel Suignard: If we decide to progress this in Amd. 5, should we keep the charts as is or should we make any changes?
- e. Mr. Michael Everson: I am prepared to add the One Character. I am not comfortable changing the glyph change proposed.
- f. Dr. Umamaheswaran: My suggestion is that the ad hoc report be sent for national body review. The Amd. 5 should go forward with no changes; that would be the simplest thing to do.
- g. Mr. Peter Constable: The glyph change identified for 1A68 probably should go ahead.
- h. Dr. Umamaheswaran: Is this glyph error due to Amd. 4 created by the error in the wrong style being used in the production of the charts?
- Mr. Peter Constable: The error reported is independent of the production issue. WG2 can decide to act on it.
- Mr. John Knightley: In view of the problem that I heard this time due to production error it is unclear as to how different national bodies will react the next time around.
- k. Mr. Mike Ksar: We will ensure that the new set of charts in Amd. 5 will be the correct ones.
- Mr. Masahiro Sekiguchi: What would be the impact on Amd. 4 by moving this out to Amd. 5.
- m. Mr. Michel Suignard: There is no impact on Amd. 4. China had agreed to move it out of Amd. 4 to Amd. 5.
- n. Mr. Peter Constable: You said it is easier to make the change .. I beg to differ. It is easier to produce the ballot documents. It would simplify the overall process if we had consensus from people involved to make the changes.
- o. Mr. Chen Zhuang: I agree with the statement.
- p. Ms. Deborah Anderson: It would be better to consult other experts in Thailand getting them involved as well.
- Mr. Peter Constable: Having review with other language experts is also essential.
- r. Mr. Mike Ksar: We will accept recommendations 1 and 3 of ad hoc report.

# Relevant resolution:

M51.2 (Lanna script): **Unanimous** 

With reference to the ad hoc report on Lanna script in document N3346, and based on disposition of ballot comments on FPDAM4 at the meeting, WG2 resolves to move all the changes introduced for Lanna script (block 1A20--1AAF) from Amendment 4 to Amendment 5, incorporating the following changes:

- a. Ensure the correct glyphs and associated names are used to produce the charts correcting the previous production error
- b. Replace LANNA with TAI THAM in the script name, the block name and all the character names
- Add an annotation that the script is also known as LANNA (similar to TAI LUE)
- Insert a new character 1A5A TAI THAM SIGN LOLA HOY KONGNOT
- Move the characters in 1A5A to 1A5E down one position Move the character in 1A5F to 1A7E.
- Further the Chinese national body and other experts are invited to discuss and resolve all outstanding concerns from document N3346 for consideration at the next WG2 meeting.

# 10.2 Letter in support of the Egyptian Hieroglyphs proposal

# Input document:

3310 Letter in support of the Egyptian proposal; Ola El Aguizy; 2007-09-04 Ms. Deborah Anderson: Document N3310 is a letter from Professor Ola El Aguizy, Faculty of Archaeology, University of Cairo, based on request at the WG2 Frankfurt meeting M50 to get a letter of support from Egyptologists in Egypt. Ms. Ola El Aguizy was contacted as a result of this action item. The letter is in support of the Egyptian Hieroglyphs proposal.

WG2 notes this input.

# 10.3 Request to remove Bamum from PDAM 5

Request to Remove Bamum from Amendment 5; Debbie Anderson; 2007-08-13 3298

Ms. Deborah Anderson: The document N3298 is a letter from Dr. Konrad Tuchscherer requesting a delay in inclusion of Bamum script in the standard, pending more discussion with the user community. Mr. Peter Constable: The UTC has reviewed this request and supports the request.

#### Relevant resolution:

# M51.5 (Removal of Bamum script from Amd. 5):

**Unanimous** 

With reference to document N3298, and supportive technical comments in PDAM5 ballot response document N3331, WG2 resolves to remove all changes introduced for Bamum script (block 1C80--1CCF) from Amendment 5, awaiting further input from the Bamum user community before further processing.

# 10.4 Comments on Meitei Dandas – PDAM5

### Input document:

Comments on Meitei Dandas; Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2007-09-10

Ballot comments on PDAM 5 were conflicting. The German, UK and Irish national bodies propose addition of separate Meitei Dandas and the US national body had expressed opposition to adding these.

An ad hoc met and could not get a consensus. The ad hoc also suggested that a proposal for some criteria to decide when to encode script-specific Danda is needed to help WG2 in making decisions.

#### Discussion:

- a. Mr. John Knightley: The comments from everyone is noted. I would suggest that this issue has to be addressed by the next WG2 meeting. It is not going to be resolved at this meeting. I do not believe that we want to pull this script out of the current Amd. This is because we had more informal ad hoc discussions and the UK had not had a chance to discuss the Dandas in general.
- b. Mr. Mike Ksar: Are you saying that we keep the script as is and get the Dandas be addressed in a future amendment?
- c. Mr. Michel Suignard: I have to remind every one that Amd. 5 as the ballot count stands has failed the ballot unless we get the ballots reversed.
- d. Mr. Michel Suignard: I would like to get a position statement as to what to do with the Dandas.
- e. Mr. Michel Everson: Ireland is not prepared to withdraw the comment from this ballot. We do not agree that Meitei script is complete without them. In our view we cannot go ahead without the Dandas. We can accept moving Meitei Mayek out of Amd. 5 and move it for a future amendment. We do not wish the Amd. 5 to fail because of this position.

# Relevant resolutions:

# M51.6 (Removal of Meitei Mayek script from Amd. 5):

**Unanimous** 

With reference to document N3327, and based on discussion of PDAM 5 ballot comments on Meitei Dandas at the meeting, WG2 resolves to remove all changes introduced for Meitei Mayek script (block A6A0--A6FF) from Amendment 5, until the question about script-specific Dandas is resolved (see resolution M51.7 below).

# M51.7 (Criteria for script-specific Dandas):

**Unanimous** 

WG2 invites the German, Indian, Irish, UK and US national bodies in consultation with other experts, to formulate 'definitive criteria for script-specific Dandas' for consideration at the next WG2 meeting for inclusion in the WG2 Principles and Procedures.

# 10.5 Add generic Word Separator Middle Dot

# Input document:

Proposal to add Word Separator Middle Dot; Unicode Consortium; 2007-09-19 3347

Mr. Peter Constable: In discussing the Avestan proposal Unicode experts were concerned with yet another middle dot into the standard. After discussion the proposal was to introduce a generic dot character for word separation - named WORD SEPARATOR MIDDLE DOT. In terms of glyph, different scripts could use different versions, it is just a dot but can be displayed in different scripts as needed. See document N3347 for details. The proposed code position is 2E37. The request is to include this in Amd. 5

Mr. Michael Everson: Ireland would like to propose 2E31 in the supplementary punctuation block (since that block was reorganized) as the alternate code position. Reference the final code charts for Amd. 5 in document N3349. This should satisfy Iran's comment T.3 on PDAM 5 also.

#### Relevant resolution:

### M51.8 (Word Separator Middle Dot)

Unanimous

With reference to documents N3347 and Irish ballot comment T.3 on PDAM 5 in document N3331, WG2 accepts to encode

2E31 WORD SEPARATOR MIDDLE DOT with its glyph as shown in document N3349.

# 10.6 Myanmar additions for Shan

# Input documents:

Proposal for encoding additional Myanmar characters for Shan in the UCS; Everson; 2007-07-11 US input outside amendments 4 & 5; Michel Suignard; 2007-09-14

Mr. Michael Everson: Experts who looked at the current Shan content in Amd. 4 have given us feedback. Additional letters, digits, symbols, tones and some changes of glyphs were proposed. In order to accommodate these comments, a rearranged chart including the Shan additions and existing characters under Amd. 4 ballot is proposed.

# Discussion:

- a. Mr. Peter Constable: UTC has reviewed the proposal. Accepted the rearrangement; accepted the name change for one of them; and accepted the new proposed characters. Document N<u>3321</u> Section 1 summarizes the accepted characters.
- Mr. John Knightley: The user community had reviewed this document and pleased to accept the proposed additions in document N3277.
- c. Mr. Michel Suignard: Referring to page 7 chart 1040 has a tiny tiny dot in the middle; this dot should be removed (part of the Amd. 4 US ballot comments).
- d. Mr. Mike Ksar: Revised document N3277R3 shows the updated information and will be posted.

#### Relevant resolution:

# M51.1 (Myanmar changes):

Unanimous

With reference to document N3277, WG2 accepts the rearranged code chart for Myanmar block including the following changes (in the new code positions):

- a. Change the glyphs for 107A MYANMAR LETTER SHAN NYA
- b. Change the name for 108C to MYANMAR SIGN SHAN COUNCIL TONE-3, and adjust the base line for the glyph
- c. Add the following 17 characters:

1077 MYANMAR LETTER SHAN GA 1093 MYANMAR SHAN DIGIT THREE 1079 MYANMAR LETTER SHAN ZA 1094 MYANMAR SHAN DIGIT FOUR 107B MYANMAR LETTER SHAN DA 1095 MYANMAR SHAN DIGIT FIVE 107F MYANMAR LETTER SHAN BA 1096 MYANMAR SHAN DIGIT SIX 108B MYANMAR SIGN SHAN COUNCIL 1097 MYANMAR SHAN DIGIT SEVEN TONE-2 1098 MYANMAR SHAN DIGIT EIGHT 1090 MYANMAR SHAN DIGIT ZERO 1099 MYANMAR SHAN DIGIT NINE 1091 MYANMAR SHAN DIGIT ONE 109E MYANMAR SYMBOL SHAN ONE 1092 MYANMAR SHAN DIGIT TWO 109F MYANMAR SYMBOL SHAN EXCLAMATION

d. Remove the tiny dot in the glyph for 1040 MYANMAR DIGIT ZERO

The rearranged code chart and names list are shown on page 7 of document N3277 as updated in this meeting.

# 11 Other contributions

# 11.1 Working Draft for FCD 10646 - next edition

#### Input documents:

3274 FCD 10646 - Rationale document; Project Editor, Michel Suignard; 2007-06-18
3275 FCD 10646 with revision markup; Project Editor, Michel Suignard; 2007-06-18
3276 FCD 10646 w/o revision markup; Project Editor, Michel Suignard; 2007-06-18

Mr. Mike Ksar: There are three documents -- one contains the rationale, the other two contain draft text for the FCD with and without changes marked.

Mr. Michel Suignard: I have not received many feedbacks from the WG2 experts. I will do a presentation later on this document. Meanwhile please take a look and give me your feedback.

Document N<u>3274</u> replaces document N<u>3229</u>. The intent is to make the ISO/IEC 10646 and Unicode publications more aligned. Unicode has more content than ISO/IEC 10646. There is also difference in terminology and these differences cause difficulties for others who refer to both standards.

The first issue was related to aligning the terminologies. Major definitions were not removed. Added clarification notes etc. I clarified the encoding space differences between the two standards. For example, surrogates. These are code points used for UTF-16; they are not characters.

Consistency in description of UTF-s and UCS terminology and definitions was another motivation.

Replace enumerated lists as data files - for easier maintenance and use.

Additional information in name list - we already had agreed on that.

We will fix errors in character classes.

Other architecture related items are also explained.

As to the template -- we are not well aligned with ISO templates. Two column format versus single column; the single column is easier to produce. However, some parts of the standard are two columns to have more efficient use of space. It allows us to have automated table of contents and hyper linking of clauses from the table of contents automatically in the PDF file.

I have tracked Amds. 1 to 5 so far. It caused some problems for me track these -- it makes sense to avoid the delays in publishing after we have closed on some target Amd. We could ballot the FCD in parallel with the target Amd. This would allow us not to duplicate the ballot comments on these amendments as well as the FCD. We have to consolidate the amendment texts into the FCD. Otherwise the Standard becomes unreadable.

The names list in Annex P has been moved to a data file synched with Unicode names list. Keeping empty Annexes ... marked as Empty.

My suggestion is that we push this up for a ballot stage; a subdivision proposal and process as FCD or CD.

Dr. Umamaheswaran: Up to Amd. 5 would be a reasonable target. It will take the same number of ballot cycles in the worst case .. if a PDAM-2 for Amd. 5 is issued. The other point is to see if a synch is required with a specific version of Unicode.

Disposition: Accept and progress to FCD/CD.

# Relevant resolution:

# M51.21 (FCD of next edition):

Unanimous

With reference to documents N3274, N3275 and N3276, WG2 instructs its editor / convener to prepare:

- a. a subdivision proposal for the next edition of the standard (see document N3360)
- b. text for the next edition of the standard incorporating the texts of Amendments 1 through Amendment 5 and submit the above along with the updated rationale document N3362 to SC2 for registration and balloting, with the following schedule: FCD: 2008-03 and FDIS: 2008-11.

# 11.2 Towards a default deterministic ordering for Egyptian Hieroglyphs

Input document:

3308 Towards a default deterministic ordering for Egyptian Hieroglyphs; Everson; 2007-09-01

This document is for information to WG2 delegates. It is to be discussed by OWG-SORT meeting.

# 12 Disposition of ballot comments

# 12.1 FPDAM 4

### Input documents:

FPDAM 4 - text; Michel Suignard, Project Editor; 2007-05-11

3324

Proposed Disposition of Comments – FPDAM4; Michel Suignard; 2007-09-14
FPDAM4 Ballot Results including USNB as attachment A; SC2 Secretariat, SC02 N3960; 2007-09-12 3330

**Output documents:** 

Final DoC FPDAM4; Michel Suignard; 2007-09-20

Charts for FDAM4; Everson; 2007-09-21

Mr. Michel Suignard: Document N3324 contains proposed disposition of comments.

# China - Negative.

Chinese comments T.1 through T.5 are all on Lanna script.

There were errors in the charts in Amd. 4. The corrected charts will be discussed by Chinese experts. See discussion on Lanna in section 10.1 on page 30. Refer to the ad hoc report in document N3346. Disposition:

It was agreed to move the script to Amd. 5 with some changes. See relevant resolution M51.2 on page 31.

Mr. Chen Zhuang: China accepts the disposition and reverses the ballot to Yes.

# Germany - positive with comments.

E.1 Glyph for 1E9E - Latin Capital Letter Sharp S is to be fixed.

This is similar to comments from Ireland.

Disposition: Accepted.

# Ireland - Negative

# T.1 Shan additions in Myanmar

Ireland requests changes in Myanmar additions for Shan, with additional characters, name changes, glyph corrections and rearrangement of characters. See discussion in section 10.6 on page 33, and the relevant resolution M51.1 on page 33.

Disposition: Accepted.

# T.2 Row 2E Supplemental Punctuation

Mr. Michael Everson: Ireland suggests replacing the current chart removing the holes and rearranging. We also propose to revert the names of Swung Dash characters to contain TILDE in them. The original proposers did not understand why the name was changed to Swung Dash. It is used in German orthography as TILDE. We note that there was no agreement in the UTC. Discussion:

- a. Mr. Peter Constable: I checked the UTC minutes on this topic. The rationale is not recorded. I suspect that since this is punctuation - it could be confused with the other Tildes.
- b. Mr. Michael Everson: Ireland proposed SWUNG DASH the first time around. The regular SWUNG DASH is wider and we have used Tilde in other situations for Punctuation also.
- c. Mr. Peter Constable: After consulting with UTC experts it is acceptable to change the name back to Tilde.

# Disposition:

Accept the Irish proposed changes.

Also the glyph for 2E19 Palm Branch is to be restored to what was in the original proposal.

# E.1 Proposal to add annotations to Malayalam Chillus

Accepted in principle; with corrections.

Note: The format in FDAM4 will be annotations in Annex P in the current format. It will change to the following in the next edition of the standard, aligning with the new format adopted for names lists and charts in Amd. 5 and later.

# MALAYALAM LETTER CHILLU RR

- = historically derived from the full letter ra
- = used for chillu r

# MALAYALAM LETTER CHILLU L

- = historically derived from the full letter ta
- = used for chillu t and for chillu d

# E.2 Glyph change for Capital Sharp S

Same as German comment.

Disposition: Accepted.

# E.3 - glyph corrections for 0333 and 0347

Disposition: Accepted. Will update a table in Amd. 4.

Mr. Michael Everson: Based on the above dispositions, Ireland reverses the ballot to Accept.

### Japan - Negative

### T.1- errors related to 9FC3 ideograph

Mr. Michel Suignard: As to item a. Source correction - though the source information is in the chart there is no updated mechanism to show the equivalent in the reference data file in Amd. 4. The proposal is to remove the number after J\_KX in Amd. 4. The correct format for source reference for data file will be fixed in Amd. 5.

Disposition: Accepted in principle. Editor will fix source references in both Amd. 4 and Amd. 5 to reflect the above.

Item b. CJKC\_SR text for 9FC3 is to be fixed to dereference KP1 source..

Disposition: Accepted in principle.

Mr. Masahiro Sekiguchi: Japan accepts the dispositions and reverses the ballot to Accept.

# **UK - positive with Comments**

T.1- errors in source references for ideograph at 04039.

There is a similar error in Amd. 5 that needs to be fixed. Also part of comment T.1 from US. Disposition: Accepted.

#### T.2 - G Source Reference for 09FC3

This is similar to Japan ballot comment.

Disposition: Accepted in principle.

# USA - positive with comments

T.1 - source Reference for 09FC3

Similar to Japan comment and UK comment T.2.

Accepted in principle.

# T.2 - fix duplicate use of collection numbers

Accepted.

# T.3 - dprecate collections referencing deprecated sections

Accepted.

#### T.4 - Myanmar changes for Shan

Similar to Ireland T.1. See discussion in section 10.6 on page 33, and the relevant resolution **M51.1** on page 33.

Disposition: Accepted.

T.5 - request not to change name of Malayalam Chillu RR Name change did not happen. Noted.

T.6- request not to entertain lowercased Latin epigraphic characters No request was made. Noted.

T.7 - errors in mirrored characters introduced in Amd. 3.

Instead of processing as an errata - US requests changes in Amd. 4 to undo what was changed in Amd.

3. Implementation experience exposed inconsistency between pre and post Amd. 3.

Disposition: Accepted.

E.1 to E.3 - minor editorials Disposition: Accepted.

E.4 - fix the ASN.1 notation in note 4 on page 7

Mr. Michel Suignard: I need feedback on whether there is any error in the notation used. I am not an expert in ASN.1.

Mr. Masahiro Sekiguchi: From what I know of conventions of ASN.1 the change proposed looks OK. I can check with ASN.1 guru and get back.

Disposition: Accept proposed changes.

All negative ballots were resolved. Amd. 4 progresses to FDAM stage.

## Relevant resolutions:

## M51.3 (Disposition of FPDAM4 ballot comments):

**Unanimous** 

WG2 accepts the disposition of ballot comments on FPDAM4 in document N3344 and instructs its editor to prepare the final text of Amendment 4 incorporating the dispositions. The following changes are noted in particular:

- Lanna script is moved out to Amendment 5 per resolution M51.2 above
- b. Improvement of the glyph for 1E9E
- Correction to the glyphs for 0333 and 0347
- d. Addition of annotations to MALAYALAM LETTER CHILLU RR and CHILLU L
- e. Changes in Myanmar Shan entries per resolution M51.1 above
- Rearrangement of characters in columns 2E2, 2E3 and 2E4 in the Supplemental Punctuation block per Irish ballot comment T.4 and accompanying modified chart on page 5 in document N3330
- g. Replacement of 'SWUNG DASH' with 'TILDE' in the names for 2E1B, 2E1E and 2E1F
- h. Corrections to several source reference errors for CJK
- Corrections to collection number allocations
- Removal of 2018--201F, 301D-301F from the BiDi mirrored list

## M51.4 (Progression of Amendment 4):

**Unanimous** 

WG2 resolves to include all the items accepted for inclusion in the standard noted in resolutions M51.1 and M51.2 into Amendment 4. WG2 instructs its project editor to forward the final text of Amendment 4 along with the disposition of comments document N3344 to the SC2 secretariat for an FDAM ballot. The final set of charts and names lists are in document N3348. The unchanged target starting date for FDAM4 is 2007-12.

# 12.2 PDAM 5

## Input documents:

PDAM 5 - text; Michel Suignard, Project Editor; 2007-05-10 3270

Proposed Disposition of Comments - PDAM5; Michel Suignard; 2007-09-18 3325

3331 PDAM5 Ballot Results; SC2 Secretariat, SC02 N3959; 2007-09-12

Comments on the Avestan Separation Point; Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2007-09-13

#### **Output document:**

Final DoC PDAM5; Michel Suignard; 2007-09-20 3345 3349 Charts for FPDAM5; Everson; 2007-09-21

Mr. Mike Ksar: Amd. 5 draft disposition of comments were made available today. One of the reasons was the tight time for the PDAM ballot between the two meetings.

## China - positive with comments

T.1 CJK Ext. C - remove 63 characters.

T.2 CJK Ext. C - remove T-sources for 4 characters

IRG has 67 in their request in document N3280. Japan, UK and USA have also requested these

If Chinese input is a subset of IRG it is acceptable.

Note: It was later determined that Chinese comment as written was correct and the IRG input was misinterpreted by the meeting!!

See discussion under 'CJK Ext. C follow up' on page 13.

Disposition: Accepted.

# Germany - Negative.

Technical - request Dandas be added to Meitei Mayek.

Mr. Michel Suignard: Germany has noted both unification as well as separate ones for some minority scripts in terms of past encoding of Dandas. There are opposing positions on this. There are no principles about whether to unify or not. UK and Ireland have similar suggestions.

See discussion under section 10.4 on page 32 and relevant resolution M51.6 on page 32.

Disposition: Noted. WG2 decided to remove the script out of Amd. 5.

Since it was decided to remove Meitei Mayek script from the amendment, and since Germany had this single technical comment, the German negative position will change to accept.

## India - positive with comments

Technical - block name for Meitei Mavek

Proposes block name change for Meitei to recognize alternate spelling to 'Meetei/Meitei Mayek'.

Mr. Michel Suignard: We cannot accept the proposal as is; since a slash in the block name as proposed is not allowed. However, we can add a note in the block name in figure 4 to recognize alternate spelling of Meitei.

Disposition: Acceptable in principle.

## Iran - positive with comments

Reaffirms need to keep Avestan Punctuations as presented in current Amd. 5 text.

# Ireland - Negative.

#### T.1 - Meitei Mavek Dandas

Ireland proposes to add Meitei Mayek Dandas. Rationale and backup information is provided.

See discussion under section 10.4 on page 32 and relevant resolution M51.6 on page 32.

Disposition: Noted. WG2 decided to remove the script out of Amd. 5.

## T.2 - support for request for removal of Bamum script

See discussion in section 10.3 on page 32 and relevant resolution M51.5 on page 32. Disposition: Accepted.

# T.3 - keep 10B38 Avestan Separation Point

Mr. Michel Suignard: There is a newly proposed Word Separator Dot (see discussion in section 10.5 on page 32). Can it be used instead? Once the new character can be allowed to position where needed for Avestan it may be acceptable. My preference is to use the Word Separator Dot instead of the script specific Avestan Separation Point.

Discussion:

a. Mr. Michael Everson: We are in favour of adding Word Separator Dot for more generic uses. It was in the context of Samaritan that it was discussed. However, that does not satisfy the requirement of Avestan Separation Point. The dot in Avestan is not the same as the one for Samaritan. The original author of the script had the multiple dots. I have discussed with the experts as to the alternatives. One alternative was to annotate an existing character. Professor

- Gippert does distinguish between these dots and full stop. Positioning of the Word Separator Dot is different as compared to the Avestan Dot.
- b. Mr. Peter Constable: The UTC has discussed the Word Separator Dot in the context of Avestan specifically. We want the Avestan dot be removed and replaced with Word Separator Dot.
- c. Ms. Deborah Anderson: The input is that there are too many dots already and we don't need yet another one.
- d. Mr. John Knightley: We did not have a comment on that -- since the character was already in the amendment. If it is removed, we may have to review the position. Not sure if the national body would consider this as a non-minor change.
- e. Mr. Michel Suignard: Please note that US has indicated that their comment on the Avestan Dot is not bound to their Negative ballot. I would suggest other national bodies to take a look at that way of indicating which technical comments are to be satisfied to reverse their negative ballot.
- f. Mr. Mike Ksar: The Ireland has negative vote based on comments on characters that are already

See also feedback on the topic from different experts in document N3336.

Disposition: Accepted Irish position.

T.4 through T.9 - are all on Egyptian Hieroglyphs.

T.4 is removal of one character. T.5, T.6, T.7, T.8 and T.9 are for insertions of 9 new characters.

Also proposes new rearranged charts for Amd. 5.

Disposition: Accepted all.

Editorials - All editorial comments E.1 through E.5 were accepted.

Mr. Michael Everson: Based on the above dispositions, Ireland reverses its ballot to acceptance.

# Japan - Negative

JP1 - change in the source referencing of G\_KX references.

Mr. Masahiro Sekiguchi: Even though we proposed dddd dddd format, after discussion a six digit dddddd is sufficient. It is already in Amd. 4 comment from UK. Discussion:

- a. Mr. Michel Suignard: Someone has to prepare all the files containing the source references. Can I request IRG to provide the data files. In today's PDAM 5 some of the sources do have dual notation with and without Digits.
- b. Dr. Lu Qin: We are cleaning up the IRG data: it will take some time. The Kanii information can be prepared in the short time request. The rest of these will take more time.
- c. Mr. Masahiro Sekiguchi: If we are to replace the sources to include the digits also, I am not sure about the number of digits needed. For G KX six digits would be sufficient. But some Japanese experts have expressed concerns as to whether the 6 digits would be sufficient for other dictionaries.
- d. Dr. Lu Qin: I cannot say at this time whether 6 digits would be sufficient. Disposition: Accepted in principle.

## Action item:

IRG is requested to replace all the G KX source information without the decimal values with the new format G KXdddddd. IRG is to assist the project editor in preparing the updated data file for Adm. 5 by 2007-10-15. IRG to also investigate and make recommendations on individual number of digits for other dictionary sources.

JP-2 - clarify what is normative and informative in the names list sub clause 34.2.

Mr. Masahiro Sekiquchi: The normalization related part of the names list would not be normative within the context of names list. UAX 15 should be the one which gives normative nature for this. Discussion:

a. Mr. Michel Suignard: 'The Aliases' is more complicated. Given the names are unique, the aliases are informative.

b. Mr. Masahiro Sekiguchi: As long as this understanding is correct then we are OK. Disposition: Accept in principle. Also fix wording -- ' is normative' versus ' shall be normative' !!

JP-3 - support for IRG request to update CJK Ext. C

See discussion under 'CJK Ext. C follow up' on page 13.

Disposition: Accepted.

JP-4 N3279 - additional corrections to glyphs submitted earlier by Japan.

Mr. Michel Suignard: This is a production issue. Correct glyph has to be given by Japan to the IRG editor to prepare the Amd. 5 charts.

Disposition: Accepted.

JP-5 - request for a note that names list format will be updated for all names in the next edition FCD. Disposition: Accepted in principle. Editor will add an appropriate note.

JP-6 - request for six Japanese ideographs from document N3318.

See discussion under section 9.12 on page 22 and relevant resolution M51.10 on page 24.

Disposition: Accepted.

Mr. Masahiro Sekiguchi: Japan reverses its ballot to Acceptance.

## Korea - Negative

T.1 - Replace K5H with K5 in source referencing

Disposition: Accept in principle; the charts have to be updated.

Action item: IRG has to update the Amd. 5 charts and send to project editor.

## T.2 - put a dash in source reference K5-dddd

Mr. Michel Suignard: I could do the change in the files I have. Every other K source has four hex digits. We could move to hex notation.

Professor Kyongsok Kim: I would like to discuss the hexadecimal notation with IRG experts in Korea. I understand what is proposed. I will try to contact them before the end of this meeting.

Mr. Michel Suignard: The hexadecimal notation makes it more consistent with all the K sources. We could extend it to K5 also.

Mr. Mike Ksar: The disposition could be to accept the hex notation.

Disposition: Accepted; also update notation to hexadecimal.

Action item: IRG editor to work with project editor in producing the correct Amd. 5 charts.

## T.3 - Names list

Mr. Michel Suignard: The Korean feedback is on the synch issue between ISO/IEC 10646 and the Unicode standards. The format is being discussed.

Disposition: Noted.

# T.4 - Jamos are not combining.

Mr. Michel Suignard: We have to somehow introduce the concept of conjoining. Discussion:

- a. Mr. Dae Hyuk Ahn: Korean is not proper terminology .. use Hangul instead. Because Korean language uses different scripts.
- b. Professor Kyongsok Kim: The descriptive title on page 10 .. top for example has ' Korean combining alphabet' .. it causes confusion versus Hangul Jamos etc.
- c. Mr. Michel Suignard: An explanation on how to read the names list is needed to avoid confusion. But making the names lists into groups, sub groups etc. is going too far. I am leery of changing the format of names list since it has to be synchronized with the Unicode editor as well. I agree that the title is confusing. It has to be clarified that the informative headers are just informative unlike block names.
- d. Professor Kyongsok Kim: I prefer that this title be deleted to avoid the confusion.

- e. Mr. Michael Everson: We could delete the additional line 'Korean combining alphabet' .. similar to other scripts like Tagalog.
- f. Mr. Mike Ksar: Looks like this is an editorial comment .. not technical.
- g. Professor Kyongsok Kim: When we made the comment it was not clear that these titles are informative or not.
- h. Mr. Michel Suignard: I will delete the title, and work with Unicode names list editor.

Disposition: Agreed to delete the title 'Korean combining alphabet'. Also check and improve the text on how to read the names list to minimize the confusion about normativeness etc.

T.5 - terminology consistency on 'initial consonants' versus 'syllable-initial' etc.

Mr. Michel Suignard: There is a need to synchronize / aliases of terminologies used between the two standards.

## Discussion:

- a. Professor Kyongsok Kim: In principle I agree with you. If initial consonant is to be used there should be some explanation. We have been using syllable-initial etc. in ISO standard, we could add syllable-initial to the sub group name.
- b. Mr. Michel Suignard: As an editor, as long as the two subgroup names in the names lists are explained to be equivalent between ISO/IEC 10646 and Unicode names, I should have the freedom to use either terminology in the sub title.
- c. Mr. Dae Hyuk Ahn: Can we align the sub list names with the character names.
- d. Mr. Mike Ksar: We can take the comment editorially and work with the Unicode editor and see if we can get these in synchronization.
- e. Mr. Masahiro Sekiguchi: Being a WG2 matter national bodies can express their opinions even on editorial issues.
- f. Mr. Mike Ksar: The ISO/IEC 10646 editor will work with the Unicode editor for the names list and try to get the changes requested from national bodies introduced in the Unicode lists also.

Disposition: Accepted in principle; accommodated by listing the aliases. Project editor to work with Unicode editor and see how changes requested by Korea could be accommodated best.

## T.6 - 'Old Hangul initial consonants'.

Mr. Michel Suignard: Korea is right in pointing out that the 'initial consonants' does contain some Old Hangul consonants also. I could add a note. Discussion:

- a. Professor Kyongsok Kim: If we want to really classify these we have to separate these as Modern and Old.
- b. Mr. Dae Hvuk Ahn: There is no need to have the Old versus New distinction.
- c. Mr. Michel Suignard: The code positions are to be in sequential order.

Disposition: Accepted in principle; delete the sub titles with 'Old Hangul'.

## T.7--T.15 - all are related to the names list entries

Some accepted in principle; some are accepted as proposed.

# T.16 - missing annotations for five Hangul characters

Disposition: Accepted.

# T.17 - correct K source references to K5 source references for 405 CJK characters

Disposition: Accepted.

# T.18 - Am5names.txt - request for reflecting comment 16.

Disposition: Noted.

## T.19 - CJKU\_SR.txt - request reflecting comment 2.

Disposition: Accepted.

Professor Kyongsok Kim: Korea reverses its ballot to Acceptance.

# **UK - Negative**

T.1a - support for IRG request for removal of 67 Ext. C ideographs.

See discussion under 'CJK Ext. C follow up' on page 13.

Disposition: Accepted.

## T.1b - 2AEEF can be unified with 24814

Mr. John Knightley: 2AEEF - UK believed was that is needed separately. Now that we agree that it could be unified with 24814.

## Discussion:

- a. Mr. Masahiro Sekiguchi: Japan is comfortable that these are unifiable within this table. One of the mistakes we did at WG2 Frankfurt meeting is discussing unification in WG2. We should have passed this on to IRG. I suggest that we should request IRG to give us a recommendation. I would suggest we remove the character with a hole in the slot till we get an IRG recommendation.
- b. Dr. Lu Qin: I thought we had enough evidence that these two characters should not be unified. I am prepared to put together a document.
- c. Mr. John Knightley: UK believes that it should not be in Extension C.
- d. Dr. Lu Qin: We can confirm at the next IRG whether these are to be unified or not.
- e. Mr. John Knightley: We could withdraw the comment on 2AEEF and get an IRG opinion during the ballot period.

Action item: IRG to verify 2AEEF versus 24814 can be unified or not, to address the UK comment.

T.2a - 14 glyph changes for CJK Ext. C in document N3281 Disposition: Accepted.

# T.2b - Request for verification of glyphs for several Japan sourced ideographs

Dr. Lu Qin: UK went through the submitted documents and IRG documents and requested a confirmation of changes to the glyphs.

## Discussion:

- a. Mr. Masahiro Sekiguchi: UK has not proposed any changes. We can re-verify that the current shapes are correct and communicate to WG2 and to UK.
- b. Mr. John Knightley: The second comment is, if there are any changes required will it produce changes to T-source or J-source.
- Mr. Masahiro Sekiguchi: We strongly believe that the shapes are correct and with our reverification if we find some errors, we will propose dropping the character in a ballot comment.

Disposition: Noted. Japan verified the glyphs are correct. No resulting disunification as suspected by UK.

## T.3 - There is no KP column in the code charts, but we are providing KP-sources.

Mr. Michel Suignard: This is going to affect a future discussion on how we publish the CJK Unified in multicolumn format.

Disposition: A note will be added.

# T.4 - Request to add Meitei Mayek Dandas

See discussion under section 10.4 on page 32 and relevant resolution M51.6 on page 32.

Mr. John Knightley: If the script is pulled out of Amd. 5 our vote on this will change.

Disposition: Noted. WG2 decided to remove the script out of Amd. 5.

## T.5 - Two kinds of aliases in the names list - informal and fix for defective names.

Disposition: Add explanatory text for the notation.

#### Editorial:

E.1a. E.1b and E.1c

Disposition: Accepted. The editor will fix the cut and paste errors introduced in moving from Amd. 4 to Amd. 5.

Mr. John Knightley: Based on the above dispositions UK ballot reverses to Acceptance.

# **USA - Negative**

T.1 - rename code table to code charts.

Eliminates table number problem.

Disposition: Accepted.

T.2 - collection number errors Disposition: Accepted in principle

T.3 - mark the collection for Ext. C as 'fixed' once the holes are removed.

Disposition: Accepted.

T.4 - CJK Ext. C U source error and request to add to Ext. D.

Disposition: Accepted in principle.

T.5 - support for IRG recommendations on fixes to CJK Ext. C

See discussion under 'CJK Ext. C follow up' on page 13.

Disposition: Accepted.

T.6 - support for removal of Bamum script

See discussion in section 10.3 on page 32.

Disposition: Accepted.

T.7 - does not support adding Meitei Mayek Dandas

See discussion under section 10.4 on page 32 and relevant resolution M51.6 on page 32.

Disposition: Noted. WG2 decided to remove the script out of Amd. 5.

T.8 - does not support separate Avestan Middle Dot

See discussion and disposition of related Irish comment 7.3 on page 38.

Disposition: Noted.

E.1--E.3

Editorials E1 to E3 were all accepted. Errors were caused by production issues.

Mr. Michel Suignard: Based on the above dispositions, the USA position reverses to Acceptance.

#### Disposition:

All the comments were addressed and the negative ballots were all reversed to acceptance. Progress Amd. 5 to FPDAM 5 stage.

## Relevant resolutions:

# M51.11 (Disposition of PDAM5 ballot comments):

Unanimous

WG2 accepts the disposition of ballot comments on PDAM5 in document N3345 and instructs its editor to prepare the final text of Amendment 5 incorporating the dispositions. The following changes are noted in particular:

- Addition of Tai Pham script (also known as Lanna) per resolution M51.2 above
- b. Removal of Bamum script per resolution M51.5 above
- c. Removal of Meitei Mayek script per resolution M51.6 above
- d. Addition of 2E31 per resolution M51.8 above
- e. Updates to KP source reference per resolution M51.9 above
- Addition of 6 ideographs per resolution M51.10 above f.
- g. Removal of 67 CJK Ext. C unified ideographs (see also document N3280 from IRG)
- h. Corrections to 26 CJK Ext. C ideographs per ballot comments from Japan
- Corrections to glyphs for 14 CJK Ext. C unified ideographs (see also documents N3279 and N3281) i.
- Corrections to source references for several CJK Ext. C unified ideographs j.
- k. Deletion of 1 Egyptian hieroglyph at 130FB
- Addition of 9 Egyptian hieroglyphs I.
- m. Rearrangement of code chart for Egyptian hieroglyphs reflecting the above changes and removing any empty code positions

- n. Addition of missing annotations for Korean Hangul additions
- o. Cleanup of the source references along with IRG-provided G KX data and hex notation in RoK source references.
- p. Updates to the names list for Hangul Jamos to avoid confusion
- Corrections to collection number errors

## Correction: Item g above should read:

g. Removal of 63 CJK Ext. C unified ideographs and removal of T-source for 4 CJK Ex. C unified ideographs (per charts in document N3278 attachment A).

Disposition of comments N3345 should also reflect this correction.

(The running counts for Amd. 5 and the total have also been updated.)

# M51.12 (Progression of Amendment 5):

**Unanimous** 

WG2 instructs its project editor to forward the final text of Amendment 5 along with the disposition of comments document N3345 to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in document N3349. The unchanged starting dates for this work item are: FPDAM 2007-10-31, and FDAM 2008-

# 13 Liaison reports

## 13.1 Unicode Consortium

Input documents:

Unicode Consortium Liaison Report - meeting 51; Unicode Consortium, Peter Constable; 2007-09-20

Mr. Michel Suignard: Document N3361 contains the Unicode Consortium's liaison report. The consortium is keen on maintaining the synchronization with ISO/IEC 10646, for character encoding as well as the properties needed for implementations. Unicode 5.1 will be synchronized with up to Amd. 4. There is no decision yet as to what will happen with Amd. 5 or the next edition. There are some differences in the formats etc. that will be synchronized over time. The CLDR activity is another activity that has visibility. Delegates are encouraged to look at the content of CLDR and are invited to contribute to its development. It will be beneficial for all of us. If you have any questions you can talk to me. CLDR covers 139 languages and 145 territories, and it is the largest collection of its kind.

Mr. Mike Ksar: If you want to be added to the Unicode distribution lists you can let Mr. Michel Suignard or Ms. Deborah Anderson know.

## 13.2 SEI – UC Berkeley

Input document:

Liaison Report from UC Berkeley (Script Encoding Initiative); Debbie Anderson, SEI Liaison Report, UC 3328 Berkeley; 2007-09-10

Ms. Deborah Anderson: Document N3328 contains the liaison report from SEI. The SEI project is to help scholars and user communities with un-encoded scripts. Minority scripts - modern as well as extinct scripts. Our goal is to help collaboration among the experts through the process. I have listed some of the contributions that have been made and some on going work in my liaison report. Discussion:

- Mr. Peter Constable: I checked the UTC minutes on this topic. The rationale is not recorded. I suspect that since this is punctuation - it could be confused with the other Tildes.
- Mr. Tatsuo Kobayashi: Related to SEI, at the last WG2 meeting we received a letter from SEI informing of the activities and their contribution. SC2 secretariat and chair have submitted the letter to JTC1 and requesting their endorsement. I request the WG2 delegates to inform their national bodies to support the SEI activities.
- c. Mr. Mike Ksar: We encourage you to get your national bodies to send in supporting positions to JTC1 on the SEI initiatives with regard to the minority scripts.

# 13.3 TC46 Report

Input documents:

TC46 Report; Everson; 2007-07-23

Mr. Michael Everson: Document N3289 is for your information. TC46 is responsible for library standards including terminology. At one time they worked on coded character sets. They still hold on to a Cyrillic bibliographic standard. The script names standard ISO 15924 was developed there. Unicode consortium is the registration authority. IETF RFC 3066, CLDR etc. are users of that standard.

## 14 Other business

# 14.1 Web Site

There was no discussion at this meeting; continued support from dkuug is appreciated.

#### Relevant resolution:

# M51.42 (Appreciation to DKUUG for web site support):

By Acclamation

WG 2 thanks DKUUG and its staff, in particular Mr. Kristen Nielsen, for its continued support of the web site for WG 2 document distribution and the e-mail server.

## 14.2 Future Meetings

Meeting 52, along with SC2 plenary; 21-25 April 2008 – Redmond, WA; 25th will be SC2 plenary. The SC2 plenary was postponed from China meeting this week.

Mr. Michel Suignard: As the project editor, if the meeting dates are less than 6 months apart, it is difficult to manage the amendments. We need 6 months for dealing with FPDAMs.

Mr. Mike Ksar: I am awaiting host for the future meetings. The backup will be US if no hosts are forthcoming.

Meeting 53 – Fall 2008 – seeking host; backup is San Jose, CA, US, pending confirmation.

Meeting 54 – Spring 2009 – seeking host; candidate Korea (Republic of), pending confirmation.

Meeting 55 – along with SC2 plenary; Fall 2009 – Tokushima (near Osaka), Japan, pending confirmation.

#### Relevant resolution:

## M51.41 (Future meetings):

Unanimous

WG 2 meetings:

Meeting 52 - 2008-04-21/25, Redmond, WA, USA; SC2 plenary is planned for the 25th of April

Meeting 53 - Fall 2008, seeking host; backup USA

Meeting 54 - Spring 2008, Republic of Korea (pending confirmation); backup USA

Meeting 55 - Fall 2009 (along with SC2 plenary); Tokushima, Japan (pending confirmation); backup USA

# 15 Closing

# 15.1 Approval of Resolutions of Meeting 51

The draft resolutions prepared by the recording secretary with the assistance of the drafting committee were discussed and adopted one by one, some with changes. The final set of resolutions is in document N3354.

A number of new scripts and characters that were accepted for encoding in the standard were progressed into a new amendment 6. A subdivision of the project was also accepted to be sent to SC2 for approval.

## Relevant resolution:

M51.20 (Amendment 6 - subdivision and PDAM text):

**USA - Abstention** 

Canada, China, Finland, Ireland, Japan, Korea (Republic of), Poland, and UK - Acceptance WG2 instructs its editor / convener to prepare a project sub division proposal (see document N3358) and PDAM text based on resolutions M51.13 to M51.19 above, and forward them to the SC2 secretariat for ballot. The proposed start dates for the progression of this work item are: PDAM 2007-11, FPDAM 2008-06, and FDAM 2008-11.

**Action item:** IRG convener and IRG editor have to prepare the relevant source-reference data for Amd. 4, Amd. 5 and Amd. 6, the Ext. C charts for Amd. 5, and the multi-column unified CJK charts for the CD of the second edition, respecting the schedules adopted in the relevant resolutions at this meeting.

Appreciation:
Relevant resolution:
M51.43 (Appreciation to Host):

By Acclamation

WG 2 thanks the Chinese national body (CESI), in particular Mr. Chen Zhuang, Ms. Huang Shanshan, Ms. Wang Li and Mr. He Zheng-an, for hosting the meeting, for providing excellent meeting facilities, and their kind hospitality.

# 15.2 Adjournment

The meeting was adjourned at 12:01h on Friday 2007-09-21.

## 16 Action items

All the action items recorded in the minutes of the previous meetings from M25 to M47, and M49, have been either completed or dropped. Status of outstanding action items from earlier meetings M48 and M50, and new action items from the last meeting M51 are listed in the tables that follow.

```
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 N3103)
Meeting 49, 2006-09-25/29, Tokyo, Japan; 2006-09-25/29 (document N3153)
```

# 16.1 Outstanding action items from meeting 48, 2006-04-24/27, Mountain View, CA, USA

Item	Assigned to / action (Reference resolutions in document N3104, and unconfirmed minutes in document N3103 for meeting 48 - with any corrections noted in section 3 of document N3153 from meeting 49).	Status
AI-48-7	US national body (Asmus Freytag)	
b.	To prepare updated Arabic Math proposal(s) based on documents N3085 to N3089.	In progress.
	M48, M49, M50, M51 - in progress.	

# 16.2 Outstanding action items from meeting 50, 2007-04-23/27, Frankfurt-Am-Main, Germany

Item	Assigned to / action (Reference resolutions in document N3254, and unconfirmed minutes in document N3253 for meeting 50 with any corrections noted in section 3 in the minutes of meeting 51 in document N3353).	Status
AI-50-5	Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)	
	To take note of and act upon the following items.	
a.	Check and propose any updates to the P&P document arising from adopting the combined code table and enhanced names list format per document N3214.  M51 - in progress.	In progress.

# 16.3 New action items from meeting 51, 2007-09-17/21, Hangzhou, China

Itam	Assigned to / action (Deference resolutions in Jacobs at 19954 and	Ctatus
Item	Assigned to / action (Reference resolutions in document N3354, and unconfirmed minutes in document N3353 for meeting 51 - this document you are reading)	Status
AI-51-1	Recording Secretary - Dr. V.S. UMAmaheswaran	
a.	l =	
	it to the convener as soon as possible.	
b.		
	it to the convener as soon as possible.	
AI-51-2	Convener - Mr. Mike Ksar	
	To take note of and act upon the following items.	
a.		
	snapshot of the roadmaps (in document N <u>3306</u> ) to the WG2 web site.	
b.	M51.34 (Concern on delay in FDAM 3 progression): WG2 instructs its convener to	
	communicate to ITTF via SC2 secretariat and SC2 chair its concern on the delay by	
	ITTF in processing FDAM3 to ISO/IEC 10646: 2003 with a request for expediting its	
	processing.	
C.		
AI-51-3	available: Vedic Sanskrit (N3290), Old Yi (N3288) and Batak (N3320)  Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing	
AI-31-3	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.	M51.1 (Myanmar changes): With reference to document N3277, WG2 accepts the	
	rearranged code chart for Myanmar block including the following changes (in the new	
	code positions):	
	a. Change the glyphs for 107A MYANMAR LETTER SHAN NYA	
	b. Change the name for 108C to MYANMAR SIGN SHAN COUNCIL TONE-3,	
	and adjust the base line for the glyph	
	c. Add the following 17 characters:	
	1077 MYANMAR LETTER SHAN GA 1094 MYANMAR SHAN DIGIT FOUR	
	1079 MYANMAR LETTER SHAN ZA	
	1076 MYANMAR LETTER SHAN BA 1097 MYANMAR SHAN DIGIT SIX	
	108B MYANMAR SIGN SHAN 1098 MYANMAR SHAN DIGIT EIGHT	
	COUNCIL TONE-2 1099 MYANMAR SHAN DIGIT NINE	
	1090 MYANMAR SHAN DIGIT ZERO 109E MYANMAR SYMBOL SHAN ONE	
	1091 MYANMAR SHAN DIGIT ONE 109F MYANMAR SYMBOL SHAN	
	1092 MYANMAR SHAN DIGIT TWO EXCLAMATION	
	1093 MYANMAR SHAN DIGIT THREE	
	d. Remove the tiny dot in the glyph for 1040 MYANMAR DIGIT ZERO	
	The rearranged code chart and names list are shown on page 7 of document N3277	
	as updated in this meeting.	
b.	····· ··=   = ······ = ···   ···   ···   ···   ···   ···   ···   ···   ···   = ····   ··   ···	
	N3346, and based on disposition of ballot comments on FPDAM4 at the meeting, WG2	
	resolves to move all the changes introduced for Lanna script (block 1A201AAF) from	
	Amendment 4 to Amendment 5, incorporating the following changes:  a. Ensure the correct glyphs and associated names are used to produce the	
	charts correcting the previous production error	
	b. Replace LANNA with TAI THAM in the script name, the block name and all	
	the character names	
	c. Add an annotation that the script is also known as LANNA (similar to TAI	
	LUE)	
	d. Insert a new character 1A5A TAI THAM SIGN LOLA HOY KONGNOT	
	e. Move the characters in 1A5A to 1A5E down one position	
	f. Move the character in 1A5F to 1A7E.	
	Further the Chinese national body and other experts are invited to discuss and resolve	
	all outstanding concerns from document N <u>3346</u> for consideration at the next WG2	
	meeting.	

C.		
	ballot comments on FPDAM4 in document N <u>3344</u> and instructs its editor to prepare the	
	final text of Amendment 4 incorporating the dispositions. The following changes are	
	noted in particular:	
	a. Lanna script is moved out to Amendment 5 per resolution M51.2 above	
	b. Improvement of the glyph for 1E9E	
	c. Correction to the glyphs for 0333 and 0347	
	d. Addition of annotations to MALAYALAM LETTER CHILLU RR and CHILLU L	
	e. Changes in Myanmar Shan entries per resolution M51.1 above	
	f. Rearrangement of characters in columns 2E2, 2E3 and 2E4 in the	
	Supplemental Punctuation block per Irish ballot comment T.4 and	
	accompanying modified chart on page 5 in document N <u>3330</u>	
	g. Replacement of 'SWUNG DASH' with 'TILDE' in the names for 2E1B, 2E1E and 2E1F	
	h. Corrections to several source reference errors for CJK	
	i. Corrections to collection number allocations	
	j. Removal of 2018201F, 301D-301F from the BiDi mirrored list	
d.		
	for inclusion in the standard noted in resolutions M51.1 and M51.2 into Amendment 4.	
	WG2 instructs its project editor to forward the final text of Amendment 4 along with the	
	disposition of comments document N3344 to the SC2 secretariat for an FDAM ballot.	
	The final set of charts and names lists are in document N3348. The unchanged target	
	starting date for FDAM4 is 2007-12.	
e.		
	and supportive technical comments in PDAM5 ballot response document N3331, WG2	
	resolves to remove all changes introduced for Bamum script (block 1C801CCF) from	
	Amendment 5, awaiting further input from the Bamum user community before further	
f.	processing.  M51.6 (Removal of Meitei Mayek script from Amd. 5): With reference to document	
1.	N3327, and based on discussion of PDAM 5 ballot comments on Meitei Dandas at the	
	meeting, WG2 resolves to remove all changes introduced for Meitei Mayek script	
	(block A6A0A6FF) from Amendment 5, until the question about script-specific	
	Dandas is resolved (see resolution M51.7 below).	
g.	M51.8 (Word Separator Middle Dot): With reference to documents N3347 and Irish	
	ballot comment T.3 on PDAM 5 in document N3331, WG2 accepts to encode	
	2E31 WORD SEPARATOR MIDDLE DOT	
	with its glyph as shown in document N3349.	
h.		
	reference mapping for 11 code points per document N <u>3285</u> .	
i.	,	
	accepts to encode the following:	
	2 CJK unified ideograph characters: 9FC4 (ARIB ID 47), 9FC5 (ARIB ID 95),	
	and 4 CJK Compatibility ideograph characters: FA6B (ARIB ID 39), FA6C (ARIB	
	ID 67), FA6D (ARIB ID 93), and FA6E (ARIB ID 105)	
	with their glyphs and compatibility mappings as shown in Table 7-11 in document	
	N3318.	
	Further, WG2 requests IRG to review and provide feedback on the above at its	
	November 2007 meeting.	
L	1	

j.		
	ballot comments on PDAM5 in document N <u>3345</u> and instructs its editor to prepare the final text of Amendment 5 incorporating the dispositions. The following changes are	
	noted in particular:	
	a. Addition of Tai Pham script (also known as Lanna) per resolution M51.2	
	above	
	b. Removal of Bamum script.per resolution M51.5 above     c. Removal of Meitei Mayek script per resolution M51.6 above	
	d. Addition of 2E31 per resolution M51.8 above	
	e. Updates to KP source reference per resolution M51.9 above	
	f. Addition of 6 ideographs per resolution M51.10 above	
	g. Removal of 67 CJK Ext. C unified ideographs (see also document N3280 from IRG)	
	h. Corrections to 26 CJK Ext. C ideographs per ballot comments from Japan	
	i. Corrections to glyphs for 14 CJK Ext. C unified ideographs (see also	
	documents N <u>3279</u> and N <u>3281</u> ) j. Corrections to source references for several CJK Ext. C unified ideographs	
	k. Deletion of 1 Egyptian hieroglyph at 130FB	
	Addition of 9 Egyptian hieroglyphs	
	m. Rearrangement of code chart for Egyptian hieroglyphs reflecting the above	
	changes and removing any empty code positions	
	n. Addition of missing annotations for Korean Hangul additions o. Cleanup of the source references along with IRG-provided G KX data and	
	hex notation in RoK source references.	
	p. Updates to the names list for Hangul Jamos to avoid confusion	
	q. Corrections to collection number errors	
	Correction: Item g above should read:  Removal of 63 CJK Ext. C unified ideographs and removal of T-source for 4 CJK	
	Ex. C unified ideographs (per charts in document N3278 attachment A).	
	Disposition of comments N <u>3345</u> should also reflect this correction.	
k.	, , , , , , , , , , , , , , , , , , ,	
	final text of Amendment 5 along with the disposition of comments document N <u>3345</u> to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in	
	document N <u>3349</u> . The unchanged starting dates for this work item are: FPDAM 2007-	
	10-31, and FDAM 2008-07.	
I.	1 / 1	
	characters in code positions 10840 to 10855 and 10857 to 1085F, in a new block 10840 to 1085F named Imperial Aramaic, with their names and glyphs as shown in	
	document N <u>3339</u> .	
m.	M51.14 (Phoenician numbers): With reference to document N3284, WG2 accepts to	
	encode the following 2 characters:	
	1091A PHOENICIAN NUMBER TWO 1091B PHOENICIAN NUMBER THREE	
	with their glyphs as shown on page 5 in document N3284.	
n.	M51.15 (Inscriptional Parthian): WG2 accepts to encode in the standard 30 characters	
	in code positions 10B40 to 10B55 and 10B58 to 10B5F, in a new block 10B40 to	
	10B5F named Inscriptional Parthian, with their names and glyphs as shown on page 18 in document N3286.	
0.	15-11-11-11-11-11-11-11-11-11-11-11-11-1	
	in code positions 10B60 to 10B72 and 10B78 to 10B7F, in a new block 10B60 to	
	10B7F named Inscriptional Pahlavi, with their names and glyphs as shown on page 19	
	in document N <u>3286</u> .	
p.	M51.17 (Common Indic Number Forms): With reference to documents N3312, N3334 and N3316, WG2 accepts to encode 10 characters in code positions A830 to A839 in a	
	new block A830 to A83F called Common Indic Number Forms with glyphs as shown on	
	page 14 of document N3316.	
q.	M51.18 (Bengali Ganda Currency mark): With reference to document N3311, WG2	
	accepts to encode:	
	09FB BENGALI GANDA MARK with its glyph as shown in document N3311.	
L	with its gryph as shown in accument is the state.	

r.	· · · · · · · · · · · · · · · · · · ·	
	accepts to encode the following 4 characters:	
	0FD5 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR	
	0FD6 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR	
	0FD7 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR BZHI MIG CAN	
	0FD8 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR BZHI MIG CAN	
	with their glyphs as shown on page 1 in document N3268.	
S.	M51.20 (Amendment 6 – subdivision and PDAM text):WG2 instructs its editor /	
	convener to prepare a project sub division proposal (see document N3358) and PDAM	
	text based on resolutions M51.13 to M51.19 above, and forward them to the SC2	
	secretariat for ballot. The proposed start dates for the progression of this work item	
	are: PDAM 2007-11, FPDAM 2008-06, and FDAM 2008-11.	
t.	M51.21 (FCD of next edition): With reference to documents N3274, N3275 and N3276,	
	WG2 instructs its editor / convener to prepare:	
	a. a subdivision proposal for the next edition of the standard (see document	
	N <u>3360</u> )	
	b. text for the next edition of the standard incorporating the texts of Amendments	
	1 through Amendment 5	
	and submit the above along with the updated rationale document N3362 to SC2 for	
	registration and balloting, with the following schedule: FCD: 2008-03 and FDIS: 2008-	
	11.	
AI-51-4	IRG Convenor and IRG Editor (Dr. Lu Qin)	
	To act on the resolution below.	
a.		
	WG2 invites IRG to develop a set of principles and procedures to guide their work, with	
	due considerations for the current WG2 Principles and Procedures.	
b.		
	on Annex S of ISO/IEC 10646: 2003, without impacting already unified ideographs in	
	the standard, taking into consideration the FCD ballot progression which starts in 2008-	
	03.	
c.		
	WG2 endorses the IRG activity to investigate and report back to WG2 on the issues	
	and recommendations on ideographs for names of persons, places and the like.	
d.		
	WG2 requests the IRG to report back to WG2 with a more complete plan related to the	
	identified 12000 'urgent need' ideographs, along with a prioritization of this work with	
	respect to other existing IRG work items.	
e.		
0.	accepts to encode the following:	
	2 CJK unified ideograph characters: 9FC4 (ARIB ID 47), 9FC5 (ARIB ID 95),	
	and	
	4 CJK Compatibility ideograph characters: FA6B (ARIB ID 39), FA6C (ARIB	
	ID 67), FA6D (ARIB ID 93), and FA6E (ARIB ID 105)	
	with their glyphs and compatibility mappings as shown in Table 7-11 in document	
	N3318.	
	Further, WG2 requests IRG to review and provide feedback on the above at its	
	November 2007 meeting.	
f.		
'.	requested to replace all the G KX source information without the decimal values with	
	the new format G_KXdddddd. IRG is to assist the project editor in preparing the	
	updated data file for Adm. 5 by 2007-10-15. IRG to also investigate and make	
	recommendations on individual number of digits for other dictionary sources.	
g.	MEN C C C C C C C C C C C C C C C C C C C	
	the IRG is to work with the project editor in producing the updated charts for the K5	
	sources with hexadecimal notation.	
h.		
n.		
	the UK ballot comment T.1b on PDAM 5.	
i.		
	source-reference data for Amd. 4, Amd. 5 and Amd. 6, the Ext. C charts for Amd. 5,	
	and the multi-column unified CJK charts for the text of the second edition, respecting	
	the schedules adopted in the relevant resolutions at this meeting.	

AI-51-5	National bodies of Germany, India, Ireland, UK and USA (Mr. Michael Everson,	
	Ms. Deborah Anderson)	
	To act on the resolution below.	
a.		
	and US national bodies in consultation with other experts, to formulate 'definitive criteria for script-specific Dandas' for consideration at the next WG2 meeting for	
	inclusion in the WG2 Principles and Procedures.	
AI-51-6	China (Mr. Chen Zhuang)	
AI-31-0	To take note of and act upon the following items.	
a.		
a.	N3340 on Nüshu script, WG2 invites national bodies and liaison organizations to	
	review and provide feedback to China and invites the Chinese national body to submit	
	a revised proposal incorporating the feedback for consideration at WG2 meeting 52.	
b.		
Б.	Old Lisu script, WG2 invites national bodies and liaison organizations to review and	
	provide feedback to China and invites the Chinese national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
C.		
٥.	script, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to China and invites the Chinese national body to submit a revised proposal	
	incorporating the feedback for consideration at WG2 meeting 52.	
d.		
<b>3.</b>	N3346, and based on disposition of ballot comments on FPDAM4 at the meeting, WG2	
	resolves to move all the changes introduced for Lanna script (block 1A201AAF) from	
	Amendment 4 to Amendment 5, incorporating the following changes:	
	a. Ensure the correct glyphs and associated names are used to produce the	
	charts correcting the previous production error	
	b. Replace LANNA with TAI THAM in the script name, the block name and all	
	the character names	
	c. Add an annotation that the script is also known as LANNA (similar to TAI	
	LUE)	
	d. Insert a new character 1A5A TAI THAM SIGN LOLA HOY KONGNOT	
	e. Move the characters in 1A5A to 1A5E down one position	
	f. Move the character in 1A5F to 1A7E.	
	Further the Chinese national body and other experts are invited to discuss and resolve	
	all outstanding concerns from document N <u>3346</u> for consideration at the next WG2	
	meeting.	
AI-51-7	Ireland (Mr. Michael Everson)	
	To take note of and act upon the following items.	
a.	· · · · · · · ·   · · · · · · · · · ·	
	alphabet, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to Ireland and invites the Irish national body to submit a revised proposal	
b.	incorporating the feedback for consideration at WG2 meeting 52.  M51.24 (Javanese script): With reference to documents N3292, N3319 and N3329 on	
D.	Javanese script, WG2 invites national bodies and liaison organizations to review and	
	provide feedback to Ireland and invites the Irish national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
C.	145-15-15-15-15-15-15-15-15-15-15-15-15-15	
C.	proposal on Psalter Pahlavi script, WG2 invites national bodies and liaison	
	organizations to review and provide feedback on Psalter Pahlavi script to Ireland and	
	invites the Irish national body to submit a revised proposal incorporating the feedback	
	for consideration at WG2 meeting 52.	
d.		
J.	script, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to Ireland and invites the Irish national body to submit a revised proposal	
	incorporating the feedback for consideration at WG2 meeting 52.	
e.	1474 00 (0.14)	
G.	archaic characters, WG2 invites national bodies and liaison organizations to review	
	and provide feedback to Ireland and invites the Irish national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
AI-51-8	USA (Mr. Michel Suignard)	
	(	

	T the state of the test of the	
	To take note of and act upon the following items.	
a.		
	Old South Arabian script, WG2 invites national bodies and liaison organizations to	
	review and provide feedback to Ireland and invites the Irish national body to work with	
	the US national body and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	
b.		
	N <u>3343</u> on Tangut script (also known as Xi Xia script), WG2 invites national bodies and	
	liaison organizations to review and provide feedback to the US national body and	
	invites the US national body to work with Chinese, Irish and UK national bodies and	
	invited experts and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	
C.	M51.33 (Japanese TV Symbols): With reference to document N3341 on Japanese TV	
	symbols, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to US national body and invites the US national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
AI-51-9	SEI - UC Berkeley (Ms. Deborah Anderson)	
	To take note of and act upon the following items.	
a.	1.5-1.5-2.40-1.5-1.1-1.1-1.1-1.1-1.1-1.1-1.1-1.1-1.1	
	Turkic script (also known as Orkhun script), WG2 invites national bodies and liaison	
	organizations to review and provide feedback to SEI and invites SEI to work with the	
	Chinese national body and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	
AI-51-10	All national bodies and liaison organizations	
AI 31 10	To take note of and act upon the following items.	
a.		
a.	N3340 on Nüshu script, WG2 invites national bodies and liaison organizations to	
	review and provide feedback to China and invites the Chinese national body to submit	
	a revised proposal incorporating the feedback for consideration at WG2 meeting 52.	
b.		
D.	alphabet, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to Ireland and invites the Irish national body to submit a revised proposal	
	incorporating the feedback for consideration at WG2 meeting 52.	
C.	Javanese script, WG2 invites national bodies and liaison organizations to review and	
	provide feedback to Ireland and invites the Irish national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
d.		
	proposal on Psalter Pahlavi script, WG2 invites national bodies and liaison	
	organizations to review and provide feedback on Psalter Pahlavi script to Ireland and	
	invites the Irish national body to submit a revised proposal incorporating the feedback	
	for consideration at WG2 meeting 52.	
e.	1 /	
	script, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to Ireland and invites the Irish national body to submit a revised proposal	
	incorporating the feedback for consideration at WG2 meeting 52.	
f.		
	Old South Arabian script, WG2 invites national bodies and liaison organizations to	
	review and provide feedback to Ireland and invites the Irish national body to work with	
	the US national body and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	
g.	M51.28 (Tangut script): With reference to documents N3297, N3307, N3333 and	
	N3343 on Tangut script (also known as Xi Xia script), WG2 invites national bodies and	
	liaison organizations to review and provide feedback to the US national body and	
	invites the US national body to work with Chinese, Irish and UK national bodies and	
	invited experts and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	

h.	M51.29 (Old Turkic script): With reference to documents N3299 and N3357 on Old	
	Turkic script (also known as Orkhun script), WG2 invites national bodies and liaison	
	organizations to review and provide feedback to SEI and invites SEI to work with the	
	Chinese national body and submit a revised proposal incorporating the feedback for	
	consideration at WG2 meeting 52.	
i.	M51.30 (Old Lisu script): With reference to documents N3317, N3323 and N3326 on	
	Old Lisu script, WG2 invites national bodies and liaison organizations to review and	
	provide feedback to China and invites the Chinese national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
j.	M51.31 (Simple Miao script): With reference to document N3335 on Simple Miao	
	script, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to China and invites the Chinese national body to submit a revised proposal	
	incorporating the feedback for consideration at WG2 meeting 52.	
k.	M51.32 (3 Malayalam characters): With reference to document N3295 on 3 Malayalam	
	archaic characters, WG2 invites national bodies and liaison organizations to review	
	and provide feedback to Ireland and invites the Irish national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
I.	M51.33 (Japanese TV Symbols): With reference to document N3341 on Japanese TV	
	symbols, WG2 invites national bodies and liaison organizations to review and provide	
	feedback to US national body and invites the US national body to submit a revised	
	proposal incorporating the feedback for consideration at WG2 meeting 52.	
m.	M51.41 (Future meetings): WG 2 meetings:	
	Meeting 52 - 2008-04-21/25, Redmond, WA, USA; SC2 plenary is planned for	
	the 25th of April	
	Meeting 53 - Fall 2008, seeking host; backup USA	
	Meeting 54 - Spring 2008, Republic of Korea (pending confirmation); backup	
	USA	
	Meeting 55 - Fall 2009 (along with SC2 plenary); Tokushima, Japan (pending	
	confirmation); backup USA	

End of Minutes