

ISO/IEC JTC 1/SC 2/WG 2 N2903

DATE: 2005-08-22

# 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 46

Jinyan Hotel, Xiamen, Fujian Province, China; 2005-01-24/28

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

Phone: +1 425 707-6973

+1 425 936-7329

Fax:

the convener as soon as possible but no later than 2005-09-05.

**ACTION ID: ACT** 

**DUE DATE:** 2005-09-05

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

**MEDIUM:** Acrobat PDF file

67 (including cover sheet) NO. OF PAGES:

Mike Ksar Convener - ISO/IEC/JTC 1/SC 2/WG 2 **Microsoft Corporation One Microsoft Way** Bldg 24/2217

email: mikeksar@microsoft.com Redmond, WA 98052-6399 mikeksar@10646.com

#### 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 N2903

Date: 2005-08-22

Title: Unconfirmed minutes of WG 2 meeting 46

Jinyan Hotel, Xiamen, Fujian Province, China; 2005-01-24/28

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

Mike Ksar (mikeksar@microsoft.com), Convener

Action: WG 2 members and Liaison organizations

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

# 1 Opening and Roll Call

Input document:

N2901 WG2 Experts Distribution List updated pre Meeting 46; Ksar; 2005-01-14

The convener Mr. Mike Ksar opened the meeting at 10:05h and introduced the host. Mr. Chen Zhuang representing the Chinese national body welcomed the delegates and introduced the support staff. Delegates were requested to fill out the forms for attending a dinner and an excursion on Friday or earlier.

Mr. Mike Ksar: I welcome all the delegates to WG2 meeting 46, and to Xiamen. A CD with all the documents will be created and circulated for delegates to use. All documents received to date have been posted to WG2 web site. The focus of this meeting will be disposition of comments of FPDAM1 and PDAM2. We have several feedbacks both along with ballots and afterwards. The goal is to be able to progress these two Amendments before the end of the meeting. On Tuesday afternoon the ISO/IEC 14651 editing group will meet to conduct their business. Those who want to attend the editing group are to inform the project editor Mr. Alain LaBonté. If additional time is needed Mr. Alain LaBonté will arrange for it. All new contributions are to be given to the convener, not to the support staff. We will try to cover all the contributions received to date as well as those at this meeting. This meeting is an open meeting of experts. We accomplish our work by open discussions and have ad hoc groups as needed. We may need to hold 2 or 3 ad hoc groups --- one will be on Phags-Pa script in Amendment 2. If we get Amendment 1 out of the way today the ad hoc groups can start tomorrow morning. I have asked Mr. Peter Constable to chair the ad hoc on Phags-Pa. We will need another ad hoc for N'Ko, possibly a short one. Two other short ones for Phoenician and Coptic would also be needed. If we are going on excursion on Friday afternoon then we should get the resolutions finished earlier. Please let Mr. Chen Zhuang know of your attendance for the dinner. If you have any questions please ask the convener. Discussion:

- a. Mr. Chen Zhuang: The Mongolian expert needs time to study Mr. Peter Constable's contribution. I would like to postpone that ad hoc to later.
- b. Mr. Mike Ksar: I need to know if there are experts who would like to attend more than one ad hoc discussion. I would like to start the Phags-Pa in the morning of Tuesday.

#### 1.1 Roll Call

Input document:

N2901 WG2 Experts Distribution List updated pre Meeting 46; Ksar; 2005-01-14.

Document N2901 containing the latest list of experts, their addresses, phone numbers and email ids, was circulated with a request to delegates to verify and update as needed. The following **36** delegates representing **8** national bodies, **1** liaison organization, and **5** guests were present at different times during the meeting.

Name	Representing	Affiliation
Alain LaBonté	Canada Editor 14651	Secrétariat du Conseil du trésor du Québec
V. S. (Uma) Umamaheswaran	Canada; Recording Secretary	IBM Canada Ltd.
Azat Pirdos	China	Bureau of Quality and Technique Supervision, Xinjiang
CHEN Shuangxin	China	Institute of Applied Linguistics, Ministry of Education China National Information Technology Standardization
He ZHENG-AN	China	Technical Committee, CESI
SU Guo Ping	China	Informationization Office of Xinjiang Autonomous Region
WANG Xiaoming Wushouer SLAMU	China China	Institute of Applied Linguistics, Ministry of Education Department of Computer Sciences, Xinjiang University
Yasin IMIN	China	Xinjiang Uighur Autonomous Regional Working Committee of Minorities' Language and Writing
FANG Jun	China	Chinese Electronics Standardization Institute
YANG Yucheng	China	The State Ethnic Affairs Commission
HEXIGEDUREN	China	Council for Mongolian Language, Government of Inner Mongolia, China
CHOIJINZHAB	China	Inner Mongolia University
ZHANG Zaixing	China (LIKCAR)	East China Normal University
LU Qin	China (HKSAR) China	Hong Kong Polytechnic University
CHEN Zhuang	Contributing Editor, Host	Chinese Electronics Standardization Institute
Kyaw Thein	Guest, Myanmar	Myanmar Unicode and NLP Research Center
Tun Tint Andrew West	Guest, Myanmar Guest, UK	Myanmar Unicode and NLP Research Center Independent
Peter Constable	Guest, USA	Microsoft Corporation
Michael Everson	Ireland;	Everson Typography
Masahiro SEKIGUCHI	Contributing Editor Japan	Fujitsu Limited
Taichi KAWABATA	Japan	Nippon Telegraph and Telephone Corporation
Yasuhiro ANAN	Japan	Microsoft Japan
Dae Hyuk AHN	Korea (Republic of)	Microsoft Korea
Kyongsok KIM	Korea (Republic of)	Pusan National University
Seung Jae LEE	Korea (Republic of)	National Institute of the Korean Language
WangSung YANG Domiin TUMURTOGOO	Korea (Republic of) Mongolia	Haansoft, Inc. Mongolian Agency for Standardization and Metrology
Elżbieta Broma-Wrzesień	Poland	Telekomunikacja Polska, Poland
Tatsuo KOBAYASHI	SC2 Chair, Japan	Justsystem Corporation
Hideki Hiura	USA	Sun Microsystems Inc.
	USA	
Asmus Freytag	Liaison - The Unicode Consortium;	Unicode Inc.
	Contributing Editor	
Ken Whistler	USA; Contributing Editor	Sybase Inc.
Mike Ksar	USA; Convener	Microsoft Corporation
Michel Suignard	USA; Project Editor	Microsoft Corporation

The drafting committee consisted of Messrs. Umamaheswaran, Mike Ksar and Michael Suignard.

# 2 Approval of the agenda

Input document:

2855R Meeting 46 Agenda - Updated; Mike Ksar; 2005-01-27

Mr. Mike Ksar: The latest agenda is in document N2855R. Are there any contributions not included in the agenda?

# Discussion:

- a. Mr. Michael Everson: Under item 7.4.6 a new document N2908 will be submitted. I also need another document number.
- Mr. Mike Ksar: All docs under item 6.4 are for the ISO/IEC 14651 editing group. It is FYI for WG2.
- c. Dr. Umamaheswaran: As we go through the action items review, some more items may be added to the agenda.

The agenda was approved with the above updates. Additional changes made during the progress of the meeting are captured and are reflected in the appropriate sections in these minutes. Some of the agenda items have been reorganized or renumbered in these minutes. The ad hoc sessions will be on Myanmar additions, Phags-pa, Khirgiz, Coptic, N'Ko and Phoenician.

The following table of contents reflect the final agenda items and the page numbers on which the related discussions are recorded.

Section I		
1	Opening and Roll Call	
1.1	Roll Call	
2	Approval of the agenda	3
3	Approval of minutes of meeting 45	
4	Review action items from previous meeting	6
4.1	Outstanding action items from meeting 43, 2003-12-09/12, Tokyo, Japan	6
4.2	Outstanding action items from meeting 44, 2003-10-20/23, Mountain View, CA, USA	7
4.3	New action items from meeting 45, 2004-06-21/24, Markham, Ontario, Canada	7
5	JTC1 and ITTF matters	15
5.1	JTC1 plenary 2004 Resolutions	15
6	SC2 matters	15
6.1	Ballot results	15
7	ISO/IEC 10646: 2003	16
7.1	Proposed Disposition of Comments FPDAM 1	
7.1.1	Canada: Yes with comments	16
7.1.2	China: Yes with comments	
7.1.3	France: Yes with comments	
7.1.4	Iran, Islamic Republic of: Positive with comments	
7.1.5	Ireland: Negative	21
7.1.6	Israel (O-member)	
7.1.7	Japan - Negative	
7.1.8	Morocco, Yes with comments	
7.1.9	USA: Yes with comments	27
7.1.10	Progression of FPDAM 1	
7.2	Proposed Disposition of Comments PDAM2	
7.2.1	Canada: Negative	
7.2.2	China: Negative	33
7.2.3	Germany: Negative	34
7.2.4	Ireland: Negative	
7.2.5	Japan, Negative	
7.2.6	USA: Yes with comments	
7.2.7	Progression of PDAM2	
7.3	Additional feedback on FPDAM1 and PDAM2	
7.3.1	Modifications to Tifinagh names	37
7.3.2	Mention Tifinagh characters in Annex E	37
7.3.3	Phags-pa scriptPhags-pa script	37
7.3.4	N'Ko script	38
7.3.5	Phoenician script	
7.3.6	Annex P text regarding HKSCS characters in Amendment 1	
7.4	Additional Repertoire proposals	
7.4.1	Proposal to add Palestinian and Babylonian Pointing characters	40
7.4.2	Hebrew Point HOLAM HASER FOR VAV	
7.4.3	Mathematical Horizontal Bracket Characters	40

Section I	Number Title	Page
7.4.4	Additional Latin Phonetic & Orthographic characters	41
7.4.5	Balinese script	
7.4.6	Proposal to add six characters for Kannada	43
7.4.7	Proposal to add a block of CJK Basic Strokes	43
7.4.8	Twenty six Mathematical characters	
7.4.9	Saurashtra -properties	
7.4.10	Revised Proposal to encode Chinantec tone marks	
7.4.11	Proposal for Aktieselskab character	
7.4.12	Proposal for Latin Capital Letter Double S	
7.4.13	Updated proposal for Uighur, Kazakh and Kirghiz	
7.4.14	Revision - Additional Latin Phonetic and Orthographic Characters	
7.5	Contributions carried forward from previous meetings	
7.5.1	Myanmar Additions	
7.5.2	Counting Rod Numerals	
7.5.3	Phonetic click characters	
7.5.4	Samaritan Pointing	
7.5.5	Dominoes and Games Symbol	
8	Architecture issues	
8.1	Contribution on Annex on Identifiers	
8.2	Hangul Transliteration rules	
8.3	Block Names	
8.4	Seventeen Plane Restriction	
8.5	Named USIs	
9	Publication issues/Policy Issues Review and resolve	
9.1	Proposed Joint (Unicode, ISO/IEC) font license agreement	52
9.2	Roadmap snapshot	
9.3	Updated Principles & Procedures	53
10	IRG status and reports	
10.1	IRG report	
11	Defect reports	
11.1	Possible Defect in Annex E.2 – Other Mirrored Characters	
11.2	Correcting reference glyph LATIN CAPITAL LETTER Y WITH HOOK	
11.3	Discrepancy between names & glyphs	55
11.4	Defect Report on KangXi Radical Forms, revisited	56
12	Liaison reports	56
12.1	Unicode Consortium	
12.2	IETF	
12.3	TC46: Report on transfer of TC46/SC4 to JTC1/SC2	57
12.4	SC22	57
12.5	W3C	
12.6	CDSG	57
13	Other business	57
13.1	Web Site Review	57
13.2	Future Meetings	58
14	Closing	58
14.1	Approval of Resolutions of Meeting 46	58
14.2	Appreciations:	
14.3	Adjournment	59
15	Action items	59
15.1	Outstanding action items from meeting 43, 2003-12-09/12, Tokyo, Japan	59
15.2	Outstanding action items from meeting 44, 2003-10-20/23, Mountain View, CA, USA	59
15.3	Outstanding action items from meeting 45, 2004-06-21/24, Markham, Ontario, Canada	
15.4	New Action items from meeting 46, 2005-01-24/28, Xiamen, Fujian Province, China	60

# 3 Approval of minutes of meeting 45 Input document:

2753 Minutes of meeting 45 Toronto June 2004; Uma, Ksar; 2004-12-26

Document N2753 containing these minutes was posted to the WG2 web site in the last week of December 2004; it is available only in soft copy at this meeting. Delegates were requested to review and inform Dr. Umamaheswaran of any corrections. The minutes were approved (on the last day of the meeting) with the corrections noted below:

- a. Correct "Masuhiro Sekiguchi" to "Masahiro Sekiguchi" in the attendance list in section 1.1, and wherever else it appears in the document.
- b. Change 'Fujitsu Japan' to 'Fujitsu Limited' in the attendance list in section 1.1.
- c. On page 49, item 9.6 "German Umlaut", in the introduction to the topic, change "-- these are unified at 030A. ..." to "-- these are unified at 0308. ...".
- d. Correct header line for column 2 in table in section 16.3 to read "Reference resolutions in document N2754 and unconfirmed minutes in document N2753 from meeting M45-the document you are reading)"
- e. Al 45-1-a sub item c, add document N2607 to documents carried forward (also to sub-item c of Al 45-1-h)
- f. Al 45-1 sub item h correct document number for Counting Rod Numerals from N2827 to N2816.

# 4 Review action items from previous meeting

Input document:

2753 Minutes of meeting 45 Toronto June 2004; Uma, Ksar; 2004-12-26

Dr. Umamaheswaran reviewed the action Items documented in document N2753A (which is a copy of section 16 from document N2753). The results are captured in the following sections. Out of 13 action items from before meeting 45, 5 were completed, 3 were dropped, and 5 are carried forward. Out of 46 new action items from meeting 45, 45 were completed and 1 was carried forward. The carried forward items are listed along with new action items from this meeting in section 15 on page 59.

# 4.1 Outstanding action items from meeting 43, 2003-12-09/12, Tokyo, Japan

Item	Assigned to / action (Reference resolutions in document N2554, and	Status
	unconfirmed minutes in document N2553 for meeting 43, with any	
	corrections noted in section 3 of document N2653 from meeting 44)	
AI-43-6		
	UMAmaheswaran)	
а	Update Principles and Procedures to include requirement for Source	Completed. See
	References and Mapping information for ideographs in machine-readable form	document N2902.
	are sent to the editor.	
	M44, M45 – in progress.	
AI-43-7	IRG Rapporteur (Mr. Zhang Zhoucai)	
С		In progress.
	Ideographs, IRG should separate the candidate characters for being Strokes	
	versus ideographs.	
	M44, M45, M46 – in progress.	
d	With reference to document N2571, IRG is encouraged filter the input on	In progress.
	Ancient Ideographs before WG2 considers them.	
	M44, M45, M46 – in progress.	
	The Irish national body (Mr. Michael Everson)	
d	To update the roadmap to provide some guidelines for differentiating	In progress.
	Ideographic Strokes from Ideographs addressing concerns expressed in	
	document N2526.	
	M44, M45, M46 – in progress.	
е	To submit a revision of document N2556 on Avestan and Pahlavi based on	Dropped.
	comments received at the meeting and any other feedback received before	
	the next meeting.	
	M44, M45 – in progress.	
g		Dropped.
	comments received at the meeting and any other feedback received before	
	the next meeting.	
	M44, M45 – in progress.	
j	To submit a revision of document N2505 on OI Chiki script based on	Dropped.
	comments received at the meeting and any other feedback received before	
	the next meeting.	
	M44, M45 – in progress.	
AI-43-11	ROK national body (Professor Kyongsok Kim)	

Item	Assigned to / action (Reference resolutions in document N2554, and	Status
	unconfirmed minutes in document N2553 for meeting 43, with any	
	corrections noted in section 3 of document N2653 from meeting 44)	
а	Invited to make a contribution on Hangul Transliteration Rules that can be	Completed. See
	applied to all Hangul contributions (reference discussion on ROK comments in	document N2918.
	document N2520.)	
	M44, M45 – in progress.	

# 4.2 Outstanding action items from meeting 44, 2003-10-20/23, Mountain View, CA, USA

	Assigned to / action (Reference resolutions in document N2654, and unconfirmed minutes in document N2653 for meeting 44, with any corrections noted in section 3 of document N2753 from meeting 45).	Status
Al-44-4	Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)	
а	Update Principles and Procedures to include - requirement for Source References and Mapping information for ideographs in machine readable form are sent to the editor - a question on BiDi property for new characters M45 – In progress	Completed. See document N2902.
AI-44-5		
	To respond to resolution M44.17 (IRG Action Items) WG2 instructs IRG to review and report to the next WG 2 meeting on the following:  a  b  c. item 1 – Clarification - in document N2667, for each of the eight dictionary entries, extract from the SuperCJK database additional information in the format (such as ddddd.ddd for HYD) identified in the Editor's Note on page 2 in document SC2 N3673 (FPDAM-1 to 10646-2), and prepare input suitable for adding to the CJKU_SR.txt file, for consideration at the next WG 2 meeting in June 2004.  M45 – In progress	In progress: sub item c
AI-44-6	The US national body (Ms. Joan Aliprand, Dr. Ken Whistler, Mr. Richard Cook)	
b	To act on resolution M44.16 (Names for USIs): With reference to document N2589, WG2 accepts the request for providing standardized names for entities represented as USIs, and invites the US national body to provide a more detailed proposal based on discussions at meeting M44 for consideration at the next WG 2 meeting.  M45 – In progress	Completed. See document N2921.
	Mr. Richard Cook is invited to propose four new characters for the CJK Radical Supplement - WG2 does not consider the four characters to be defective as reported in document N2659.  M45 – In progress	Completed. See document N2882.
	The Irish national body (Mr. Michael Everson)	
b	To resolve differences between documents N2619 and N2620 on Saurashtrian script working with the authors of these documents and to submit an updated document.  M45, M46 – In progress	In progress.

# 4.3 New action items from meeting 45, 2004-06-21/24, Markham, Ontario, Canada

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
AI-45-1	Meeting Secretary - Dr. V.S. UMAmaheswaran	
a.	To finalize the document N2754 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N2754.
b.	To finalize the document N2753 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N2753.
AI-45-2	Convener - Mr. Mike Ksar	
a.	To add the following carried forward scripts to next meeting agenda:  a. Ol Chiki script – document N2505	Added items f, g, h, and, i to the agenda.

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
	b. Manichaean script – document N2544	All others carried
	c. Saurashtra script – documents N2607, N2619	forward pending new
	d. Avestan and Pahlavi – document N2556	contributions.
	e. Dictionary Symbols – document N2655	CONTRIBUTIONS.
	f. Myanmar Additions – documents N2768, N2827	
	g. Invisible Letter – document N2822 h. Counting Rod Numerals – document N2816	
	i. Babylonian Pointing characters – document N2759	
	j. Bantu Phonetic Click characters – document N2790	
	k. 12 Hebrew characters – document N2758	
	Dominoe Tiles and other Game symbols – N2760	
AI-45-3	Editor of ISO/IEC 10646: Mr. Michel Suignard with assistance from	
	contributing editors	
	To prepare the appropriate AM, DAM or PDAM texts, sub-division proposals,	Completed. See
	collection of editorial text for the next edition, corrigendum text, or entries in	document N2845 on
	collections of characters for future coding, with assistance from other	FPDAM1 and N2846
	identified parties, in accordance with the following:	on PDAM2.
a.	M45.2 (Coptic – changes requested in ballot response to PDAM1):	
	With reference to changes requested to Coptic encoding in PDAM 1 ballot	
	comments, and the details given in document N2744, WG2 accepts replacing	
	the existing Coptic encoding for inclusion in Amendment 1 to ISO/IEC 10646:	
	2003 with the changes detailed in document N2831 and as shown in the	
	charts in document N2824 (also on pages 62 to 64 in document N2832).	
	(Note: 55 new characters were added to the 59 in current PDAM1 in Coptic	
	block.)	
b.	M45.3 (Tai Lue – changes requested in ballot response to PDAM1):	
	With reference to changes requested to Tai Lue encoding in PDAM 1 ballot	
	comments, and the details given in documents N2748 and N2761, WG2	
	accepts the ad hoc group recommendations in document N2825. WG2	
	accepts the revised encoding and name change of the characters and the	
	block to "New Tai Lue" as shown in document N2825, and on pages 37 and	
	38 in document N2832. (Note: no additions to the repertoire.)	
c.	M45.4 (New characters requested in ballot response to PDAM1):	
٠.	WG2 accepts for inclusion in Amendment 1 to ISO/IEC 10646: 2003 the	
	following <b>98 new</b> characters:	
	a. With reference to document N2763 and Irish comment T.17 in	
	document N2773 on Glagolitic Suspension mark:	
	1DC3 COMBINING SUSPENSION MARK	
	for encoding in the Combining Diacritical marks Supplement block with	
	the glyph from document N2773, and as shown in the charts on pages 45	
	of document N2832.	
	b. With reference to document N2740 on Additional Phonetic symbols:	
	0238 LATIN SMALL LETTER DB DIGRAPH	
	0239 LATIN SMALL LETTER QP DIGRAPH	
	023C LATIN SMALL LETTER C WITH STROKE	
	in Latin Extended-B block	
	1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE	
	1D7C LATIN SMALL LETTER IOTA WITH STROKE	
	1D7D LATIN SMALL LETTER P WITH STROKE	
	1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE	
	1D7F LATIN SMALL LETTER UPSILON WITH STROKE	
	in Phonetic Extensions block,	
	1DC2 COMBINING SNAKE BELOW	
	in Combining Diacritical Mark Supplement block, and,	
	Create a new block named Phonetic Extensions Supplement in the	
	range 1D80-1DBF fully populated with proposed characters,	
	as detailed in the charts and names lists (on pages 5, 6, 40, 41, 42, 43, and	
	45 in document N2832 for the above code positions.	

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
	and ballot comments and documents N2699 and N2770 related to	
	Combining Dot Above Right:	
	0358 COMBINING DOT ABOVE RIGHT	
	in the Combining Diacritical Marks block as shown on pages 7 ad 8 of document N2832	
	d. With reference to document N2705 and N2788 on Indo-Europeanist	
	phonetic letters:	
	2090 LATIN SUBSCRIPT SMALL LETTER A	
	2091 LATIN SUBSCRIPT SMALL LETTER E	
	2092 LATIN SUBSCRIPT SMALL LETTER O	
	2093 LATIN SUBSCRIPT SMALL LETTER X	
	for encoding in the Superscripts and Subscripts block with the proposed	
	glyphs, and as shown in the charts on page 48 of document N2832.	
	e. With reference to document N2694 for Tibetan characters for	
	Bhutanese:	
	0FD0 TIBETAN MARK BSKA- SHOG GI MGO RGYAN (ka shog gi	
	go gyen)	
	0FD1 TIBETAN MARK MNYAM YIG GI MGO RGYAN (nyam yig gi go gyen)	
	for encoding in the Tibetan block with the proposed glyphs, and as shown	
	in the charts on pages 27 and 28 of document N2832.	
	f. With reference to document N2743 on two currency signs:	
	20B4 HRYVNIA SIGN	
	20B5 CEDI SIGN	
	for encoding in the Currency Symbols block with the proposed glyphs,	
	and as shown in the charts on page 49 of document N2832.	
	g. With reference to document N2708 on Greek Zero Sign:	
	1018A GREEK ZERO SIGN	
	for encoding in the Ancient Greek Numbers block with the proposed	
	glyph, and as shown in the charts on pages 86 and 87 of document	
	N2832.	
	<ul> <li>With reference to document N2723 on Arabic characters fro use in African languages:</li> </ul>	
	065D ARABIC REVERSED DAMMA	
	065E ARABIC FATHA WITH TWO DOTS	
	combining characters, in the Arabic block, and,	
	076B ARABIC LETTER REH WITH TWO DOTS VERTICALLY	
	ABOVE	
	076C ARABIC LETTER REH WITH HAMZA ABOVE	
	076D ARABIC LETTER SEEN WITH TWO DOTS VERTICALLY	
	ABOVE	
	in the Arabic Supplement block,	
	with the proposed glyphs, and as shown in the charts on pages 15 to 18	
	of document N2832.	
	i. With reference to document N2680R on Additional Math characters:	
	27C3 OPEN SUBSET 27C4 OPEN SUPERSET	
	27C5 LEFT S-SHAPED BAG DELIMITER	
	27C6 RIGHT S-SHAPED BAG DELIMITER	
	for encoding in the Miscellaneous Mathematical Symbols-A block with the	
	proposed glyphs, and as shown in the charts on page 57 of document	
	N2832.	
	j. With reference to document N2755 and N2821 on Qamats Qatan	
	characters:	
	05BA HEBREW POINT QAMATS QATAN	
	and	
	Add annotation to 05B8 in Annex P on its use as Qamats Gadol in	
	an orthography which distinguishes it from Qamats Qatan	
l l	for encoding as a combining character in the Hebrew block with a glyph	

item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
	with an extended stem, as shown in the charts on pages 13 and 14 of	
	document N2832.	
	k. With reference to document N2692 on Atnah Hafukh character:	
	05A2 HEBREW ACCENT ATNAH HAFUKH	
	for encoding as a combining character in the Hebrew block with a v-	
	shaped glyph, as shown in the charts on pages 13 and 14 of document	
	N2832.	
	I. With reference to document N2714 on Masoretic punctuation marks:	
	05C5 HEBREW MARK LOWER DOT,	
	a combining character, and,	
	05C6 HEBREW PUNCTUATION NUN HAFUKHA	
	for encoding in the Hebrew block with a v-shaped glyph, as shown in the	
	charts on pages 13 and 14 of document N2832.	
	m. With reference to document N2741 on Tamil digit zero:	
	0BE6 TAMIL DIGIT ZERO	
	for encoding in the Tamil block with the proposed glyph, as shown in the	
	charts on pages 25 and 26 of document N2832.	
d.	M45.5 (New characters for Amendment 1):	
u.	WG2 accepts for inclusion in Amendment 1 to ISO/IEC 10646: 2003 the	
	following <b>35 new</b> characters:	
	a. With reference to document N2789 on Glottal Stop character:	
	0241 LATIN CAPITAL LETTER GLOTTAL STOP	
	for encoding in the Latin Extended-B block with the proposed glyph, and	
	as shown in the charts on pages 5 and 6 of document N2832.	
	b. With reference to document N2705 and N2788 on Indo-Europeanist	
	phonetic letters:	
	2094 LATIN SUBSCRIPT SMALL LETTER SCHWA	
	for encoding in the Superscripts and Subscripts block with the proposed	
	glyph, and as shown in the charts on page 48 of document N2832.	
	c. With reference to document N2713 on Phonetic and IPA characters:	
	v block named Modifier Tone Letters in the range A700 to A71F; populate code	
	positions A700 to A716 with characters shown as A901 to A917 in	
	document N2713, and as shown on page 77 in document N2832.	
	solution M45.4-c above for 0358 Combining Dot Above Right character).	
	d. With reference to document N2815 on Postal Code mark:	
	327E CIRCLED HANGUL IEUNG U	
	for encoding in the Enclosed CJK Letters and Months block with the	
	proposed glyph, and as shown in the charts on pages 73 and 74 of	
	document N2832.	
	e. With reference to documents N2809, N2810, N2811 and N2812, on	
	Bengali Khanda Ta:	
	09CE BENGALI LETTER KHANDA TA	
	for encoding in the Bengali block with the proposed glyph, and as shown	
	in the charts on pages 23 and 24 of document N2832.	
	f. With reference to Left and Right Paraphrase marks in document	
	N2765 on N'Ko script: 2E1C LEFT LOW PARAPHRASE BRACKET	
	2E1C LEFT LOW PARAPHRASE BRACKET 2E1D RIGHT LOW PARAPHRASE BRACKET	
	and, the name changes caused by the above allocation to the	
	following PDAM1 characters:	
	2EOC LEFT RAISED OMISSION BRACKET	
	2E0D RIGHT RAISED OMISSION BRACKET	
	for encoding in the Supplemental Punctuation block with the proposed	
	glyph, and as shown in the charts on pages 70 and 71 of document	
	N2832.	
	g. With reference to document N2799 on Africanist phonetic	
	characters: 023F LATIN SMALLLETTER S WITH SWASH TAIL	

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
	for encoding in the Latin Extended-B block with the proposed glyph, and	
	as shown in the charts on pages 5 and 6 of document N2832.	
	h. With reference to document N2784 on SENĆOŦEN Latin characters:	
	023A LATIN CAPITAL LETTER A WITH STROKE	
	023B LATIN CAPITAL LETTER C WITH STROKE	
	023D LATIN CAPITAL LETTER L WITH BAR	
	023E LATIN CAPITAL LETTER T WITH DIAGONAL STROKE	
	for encoding in the Latin Extended-B block with the proposed glyph, and	
	as shown in the charts on pages 5 and 6 of document N2832.	
e.	M45.6 (Tifinagh script – requested as part of PDAM1 ballot comments):	
	With reference to document N2739 on Tifinagh script, WG2 accepts the	
	proposed <b>55 new</b> characters for inclusion in Amendment 1 to ISO/IEC 10646:	
	2003, with code positions and names changed per ad hoc report in document	
	N2828, to create a new block Tifinagh in the range 2D30 to 2D7F and	
	populate code positions 2D30 to 2D65 and 2D6F as shown on the charts on	
	pages 66 and 67 of document N2832.	
f.	M45.7 (Ethiopic Extensions):	
	With reference to documents N2747 and N2814 on Ethiopic extensions, WG2	
	accepts for inclusion in Amendment 1 to ISO/IEC 10646: 2003, to create two	
	new blocks called Ethiopic Extended in the range 2D80 to 2DDF and Ethiopic	
	Supplement in the range 1380 to 139F; add 11 characters in the Ethiopic	
	block, and populate the new blocks with the proposed characters with the	
	glyphs and names as shown in the charts on pages 32 to 35, 36, 68 and 69 in	
	document N2832. (Note: total of 116 new characters.)	
g.	M45.8 (PUA characters from HKSCS-2001 and GB18030):	
	With reference to the ballot comments and proposals in documents N2757R,	
	N2807, N2808 and N2817, on encoding of existing PUA characters from	
	HKSCS-2001 and GB18030, WG2 accepts the proposed characters for	
	inclusion in Amendment 1 of ISO/IEC 10646: 2003, modified during the	
	discussion and as documented on pages 11 to 13 of disposition of comments	
	document N2831. The corresponding CJK source references from document	
	N2808 are also accepted. See also charts on pages 53, 54, 72, 75, 76, 85	
<b>L</b>	and 86 in document N2832. (Note: total of <b>50 new</b> characters.)	
h.	M45.9 (Addition of CJK source references from DPRK):	
	With reference to IRG resolution M22.8 in document N2767, and documents	
	N2774 and N2775, WG2 accepts the 6 KP source references in document	
	N2774 and 13 KP source references in document N2775, for inclusion in	
	CJKU_SR.txt and CJKC_SR.txt in Amendment 1 to ISO/IEC 10646: 2003.	
i.	M45.10 (106 compatibility Hanja characters from DPRK): With reference to IRG resolution M22.8 in documents N2767 and N2776.	
	WG2 accepts the <b>106 new</b> Compatibility Ideographs and their mappings for	
	encoding in the CJK Compatibility Ideographs block, in code positions FA70	
	to FAD9, as shown on pages 82 to 84 in document N2832, for inclusion in	
	Amendment 1 to ISO/IEC 10646: 2003.	
j.	M45.11 (IICORE collection):	
J.	With reference to document N2780 on International Ideograph Core subset,	
	WG2 accepts to create a new fixed collection named IICORE, and instructs its	
	editor to prepare the collection definition in the appropriate format for inclusion	
	in Amendment 1 to ISO/IEC 10646: 2003.	
k.	M45.12 (Technical Defect):	
•••	WG2 acknowledges the technical defect in the definition of collection 340 -	
	Combined First Edition reported in document N2693 (SC 2 N3711) and	
	accepts the proposed correction for inclusion in Amendment 1 to ISO/IEC	
	10646: 2003.	
l.	M45.13 (Request for encoding German Umlaut):	
••	With reference to documents N2766 and N2819 on German Umlaut, WG2	
	recommends the use of Combining Grapheme Joiner (CGJ, 034F) +	
	Combining Diaeresis (0308) to represent the Tréma character where such	
	distinction is needed. WG2 instructs its editor to include an appropriate	

Item	,	Status
	unconfirmed minutes in document N2753 for meeting 45 - with any	
	corrections noted in section 3 of document N2903 from meeting 46)	
	informative note with CGJ description in Annex F, in Amendment 1 to ISO/IEC	
m	10646: 2003. M45 14 (Disposition of ballot comments):	
m.	M45.14 (Disposition of ballot comments): With reference to the PDAM1 ballot comments and their proposed	
	dispositions in document N2737, and based on the discussion at the meeting,	
	WG2 accepts the final disposition of comments in document N2831, which	
	includes the responses to ballot comments having corresponding proposals	
	for new scripts or characters, several of which are captured in individual	
	resolutions in this document. (Note: a total of <b>515 new</b> characters added, <b>52</b>	
	characters <b>moved</b> to Amendment 2 from the current <b>810</b> , leaving a net of	
	1273 additions in Amendment 1.)	
n.	M45.15 (Progression of Amendment 1):	
	WG2 instructs its editor to prepare the FPDAM text based on the disposition	
	of comments in document N2831 and the various resolutions from this	
	meeting for additional characters and scripts for inclusion in Amendment 1 to	
	ISO/IEC 10646: 2003, and forward to SC2 secretariat for FPDAM processing,	
_	with unchanged schedule.	
О.	M45.16 (Phags-Pa – changes requested in ballot response to PDAM1):	
	With reference to changes requested to Phags-Pa encoding in PDAM 1 ballot comments, and the details given in document N2745 and associated	
	documents N2719 and N2771, WG2 accepts the ad hoc group	
	recommendations in document N2829. WG2 accepts the revised encoding of	
	the <b>52</b> characters as shown on pages 79 to 81 in document N2832 for	
	inclusion in Amendment 2 to ISO/IEC 10646: 2003 (removing it from	
	Amendment 1). National bodies and liaison organizations are invited to	
	provide feedback on the various open issues identified in document N2829.	
p.	M45.17 (N'Ko script):	
	With reference to document N2765 on N'Ko script and its revised proposal in	
	document N2833, WG2 accepts for inclusion in Amendment 2 to ISO/IEC	
	10646: 2003, to create a new block named N'Ko in the range 07C0 to 07FF	
	and populate it with 59 characters and glyphs in code positions 07C0 to 07FA	
	as shown in the charts on pages 19 and 20 of document N2832.	
q.	M45.18 (Phoenician script): With reference to proposal in document N2746 and associated discussions in	
	documents in N2772, N2787, N2792 and N2793, WG2 accepts the proposal	
	with no changes for inclusion in Amendment 2 to ISO/IEC 10646: 2003, to	
	create a new block named Phoenician in the range 10900 to 1091F and	
	populate the code positions 10900 to 10919 and 1091F with the 27 proposed	
	characters and glyphs as in document N2746 and as shown in charts on page	
	89 of document N2832.	
r.	M45.19 (Cuneiform script):	
	With reference to document N2786 on Cuneiform script WG2 accepts for	
	inclusion in Amendment 2 to ISO/IEC 10646: 2003, to create two new blocks	
	named Cuneiform in the range 12000 to 123FF and Cuneiform Numbers and	
	Punctuation in the range 12400 to 1247F and populate these blocks with 987	
	characters and glyphs in code positions 12000 to 12373, 12400 to 12462 and	
	12470 to 12473 as proposed in document N2786, and as shown in the charts	
s.	on pages 92 to 107 of document N2832. M45.20 (Amendment 2 – subdivision and PDAM text):	
Э.	WG2 instructs its editor to prepare a project sub division proposal and PDAM	
	text based on the various resolutions from this meeting accepting characters	
	for inclusion in Amendment 2 to ISO/IEC 10646: 2003, and forward them to	
	the SC2 secretariat for simultaneous ballot of sub division approval and	
	PDAM registration (see documents N2835 and N2836). The proposed	
	completion dates for the progression of this work item are: PDAM 2004-12-15,	
	FPDAM 2005-06-15, and FDAM 2005-12. (Note: A total of <b>1125</b> characters	
	were accepted for inclusion in Amendment 2 at this meeting.)	
t.	To ensure the USIs that have been accepted for encoding in the standard	
	from document N2808 are in the standard when more USI text has been	

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections noted in section 3 of document N2903 from meeting 46)	Status
u.	approved for inclusion. A note should be added to the standard capturing the information given in document N2695 regarding the correct glyphs to use for 21E2D and 21E45.	
AI-45-4	Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)	
a.	To take note of and act upon the following items.  M45.29 (Source information for CJK compatibility ideographs):  WG2 accepts the proposal in document N2806 for additional details on source information for CJK compatibility ideographs for inclusion in its Principles and Procedures document.	Completed. See document N2902.
b.	M45.30 (Font submissions policy): With reference to document N2762 WG2 resolves to support the Unicode Consortium's font submissions policy documented at http://www.unicode.org/policies/font_policy.html for the preparation and publication of ISO/IEC 10646 and its Amendments.	Completed. See document N2902.
Ċ.	M45.31 (Stability of URLs for the web site): WG2 notes the critical importance of stable URLs for the existing collection of electronically available working group documents and authorizes its convener to take the necessary precautions and steps to ensure that all past, current and future URLs for working group documents remain stable.	Completed. See document N2902.
d.	M45.32 (Stability of IICORE collection): With reference to document N2780 on International Ideograph Core subset, WG2 accepts that any future amendments of the International Ideograph Core should be recorded as new collections with their own unique collection names. The new collection must be a true superset of all existing IICORE and any of its amended collections in an upwardly compatible manner.	Completed. See document N2902.
е.	To add text to clarify the rules on Fixed versus Open Collections.	Completed. See document N2902.
AI-45-5 a.	Ad hoc on Roadmap (Mr. Michael Everson)  To reflect the new blocks and other relevant changes from meeting 45 in the roadmap.	Completed. See document N2894.
AI-45-6	IRG Rapporteur (Dr. Lu Qin)	
a.	To take note of and act upon the following items.  To take note of M45.32 (Stability of IICORE collection): With reference to document N2780 on International Ideograph Core subset, WG2 accepts that any future amendments of the International Ideograph Core should be recorded as new collections with their own unique collection names. The new collection must be a true superset of all existing IICORE and any of its amended collections in an upwardly compatible manner.	Noted.
b.	M45.33 (CJK Ideograph source visual reference information): WG2 accepts the proposal to add visual reference information requested in document N2830, for those CJK unified ideographs that do not currently have it, similar to the information in the standard for the 'CJK unified ideographs' block. Further, WG2 instructs the IRG to prepare an assessment report including a proposed implementation plan for discussion at the next WG2 meeting in January 2005.	In progress.
C.	M45.34 (Expansion of IRG scope): With reference to IRG resolution M22.9 in document N2767, WG2 proposes an expansion of the scope of IRG to include Old Hanzi and CJK Strokes as additional topics in its deliberations, and requests SC2 to approve this expansion in scope.	Noted.
d.	M45.35 (IRG appointments): WG2 endorses the IRG nomination of Dr. Lu Qin as the next IRG Rapporteur, and requests SC2 to approve this appointment. WG2 notes the IRG appointments of Mr. Chen Zhuang as the Chief Editor and Ms. Wang Xiao Ming as the Technical Editor.	Noted.
AI-45-7	Japanese national body (Mr. Masahiro Sekiguchi	
a.	To take note of M45.22 (JIS X0213 mapping information): With reference to documents N2697 and N2736, in the interest of consistent	Completed. Input given to editor for

Item	Assigned to / action (Reference resolutions in document N2754, and	Status
	unconfirmed minutes in document N2753 for meeting 45 - with any	
	corrections noted in section 3 of document N2903 from meeting 46)	
	interchange and mapping between ISO/IEC 10646 and JIS X0213 and the	FPDAM1.
	associated benefits to the users of the standards, WG2 invites Japanese	
	national body to consider adding the mapping information to the registration.	
AI-45-8	Chinese national body (Messrs, Cheng Zhuang, Woushoeur Silamu)	
a.	To take note of M45.28 (Additional characters for Uighur, Kazakh and	Noted. See document
	Kirghiz): With reference to proposed additions to the Arabic script in	N2897.
	document N2820 to support Uighur, Kazakh and Kirghiz, WG2 accepts the ad	
	hoc report in document N2834, which concludes that one of the proposed	
	characters is already encoded and proposes an alternative to those that can	
	be expressed as combining sequences. China is invited to consider the ad	
b.	hoc recommendations.  To take note of M45.27 (Counting rod numerals): With reference to document	Noted.
D.	N2816 on counting rod numerals WG2 invites China and other national	Noted.
	bodies and liaison organizations to review and provide feedback to the	
	authors by 2004-10-31 for consideration at its next meeting in January 2005.	
AI-45-9	Korea (Republic of) (Mr. Dae Hyuk Ahn)	
a.	To send appropriate font for 327E CIRCLED HANGUL IEUNG U (Korean	Completed.
u.	Postal mark symbol) to Dr. Asmus Freytag in preparing the charts for the	Completed.
	standard.	
AI-45-10	All national bodies and liaison organizations	
	To take note of and act upon the following items.	
a.	M45.21 (Request for revision to ISO/IEC 6937 from Romania): With reference	Noted. SC2 was
	to the Romanian proposal to revise ISO/IEC 6937 in document N2783, WG2	requested to forward
	recommends to SC2 not to entertain this request for the following reasons:	WG2 input to
	6937 is not in wide use	Romania.
	<ul> <li>ITU Telematics recommendations which used 6937 have been</li> </ul>	
	withdrawn	
	<ul> <li>6937 should be considered as one of the stabilized standards</li> </ul>	
	encouraging the use of ISO/IEC 10646 as the strategic alternative.	
	To resolve the problem identified by Romania, instead of requesting a revision	
	to ISO/IEC 6937, SC2 is requested to communicate to Romania, that they	
	consider removing the reference to ISO/IEC 6937 from their national	
	standard.	
b.	M45.23 (Request from SC22 to SC2/WG2):	Noted.
	With reference to document N2818, WG2 accepts the request from SC22 to	
	classify characters in ISO/IEC 10646 for their suitability for use in identifiers.	
	WG2 understands the importance that such information be available at the	
	same time characters are added to ISO/IEC 10646. SC22 is invited to	
	contribute to this work.	Noted. No additional
c.	M45.26 (Myanmar extensions): With reference to proposed additions to Myanmar in documents N2768 and	feedback.
	N2827, WG2 invites national bodies and liaison organizations to review and	reeuback.
	provide feedback to the authors by 2004-10-31 for consideration of a revised	
	proposal at its next meeting in January 2005.	
d.	M45.27 (Counting rod numerals):	Noted. No additional
<b>.</b>	With reference to document N2816 on counting rod numerals WG2 invites	feedback.
	China and other national bodies and liaison organizations to review and	
	provide feedback to the authors by 2004-10-31 for consideration at its next	
	meeting in January 2005.	
e.	M45.30 (Font submissions policy):	Noted. See feedback
	With reference to document N2762 WG2 resolves to support the Unicode	in document N2890.
	Consortium's font submissions policy documented at	
	http://www.unicode.org/policies/font_policy.html for the preparation and	
	publication of ISO/IEC 10646 and its Amendments.	
f.	M45.36 (Future meetings):	Noted.
	WG 2 meetings:	
	Meeting 46 – 2005-01-24/28 in at Xiamen (Amoy), Fujian Province,	
	China (Location to be confirmed)	

Item	Assigned to / action (Reference resolutions in document N2754, and	Status
	unconfirmed minutes in document N2753 for meeting 45 - with any	
	corrections noted in section 3 of document N2903 from meeting 46)	
	Meeting 47 – July 2005, Hosts are needed preferably from Europe	
	Meeting 48 – January 2006, North America	
	IRG meeting:	
	Meeting 23 – Jeju, Korea, 2004-11-29 to 2004-12-03	
g.	M45.38 (New Web master): WG 2 appoints Mr. Mike Ksar, its convener, as	Noted.
	the new web master for its web site.	
h.	In addition to the proposals mentioned in the items above, the following	Noted.
	proposals have been carried forward. All national bodies and liaison	
	organizations are invited to review and comment on them.	
	a. Ol Chiki script – document N2505	
	b. Manichaean script – document N2544	
	c. Saurashtra script – documents N2607, N2619	
	d. Avestan and Pahlavi – document N2556	
	e. Dictionary Symbols – document N2655	
	f. Invisible Letter – document N2822	
	m. Babylonian Pointing characters – document N2759	
	n. Bantu Phonetic Click characters – document N2790	
	o. 12 Hebrew characters – document N2758	
	g. Dominoe Tiles and other Game symbols – N2760	

#### 5 JTC1 and ITTF matters

## 5.1 JTC1 plenary 2004 Resolutions

Input document:

2867 Resolutions Adopted at the Nineteenth Meeting of ISO/IEC JTC 1, 25-29 October 2004 in Berlin, Germany [JTC 1 N 7665]; 02n3767; SC2 Secretariat; 2004-11-10

SC2 chair Mr. Tatsuo Kobayashi was present at the JTC1 meeting and he was confirmed as the SC2 chair. They approved the SC2 charter. There is some misconception about SC2's work. I am inputting some information together to correct these through the US national body. JTC1 meets end of this year in Canada.

# 6 SC2 matters

Input documents:

2835	Request for subdivision of work – Amendment 2 to ISO/IEC 10646: 2003; Project Editor; 2004-06-25
2837	Resolutions of the 13th Plenary Meeting of ISO/IEC JTC 1/SC 2, Markham, Ontario, Canada, 2004-06-24/25;
	SC2 Secretariat; 2004-06-25
2843	Proposed modification of SC2 scope to include String Ordering; SC2 Secretariat; JTC1 7490; 2004-07-14
2866	Summary of Voting on ISO/IEC JTC 1/SC 2 N 3758: ISO/IEC 14651/FPDAM 2, Information technology
	International string ordering and comparison Method for comparing character strings and description of
	the common template tailorable ordering AMENDMENT 2; SC02n3769; SC2 Secretariat; 2004-11-12
2872	Amended preliminary Agenda for the meeting of ISO/IEC JTC 1/SC 2/Editing Group on 14651 to be held in
	Xiamen, Fujian Province, China, 2005-01-25 (co-located with SC2/WG2 meeting); A. LaBonte, Project Editor,
	and SC 2 Secretariat; 2004-11-17
2886	Draft Disposition of comments on FPDAM 2 to ISO/IEC 14651:2001, Information technology International
	string ordering and comparison Method for comparing character strings and description of the common
	template tailorable ordering AMENDMENT 2; Alain LaBonte; 2004-12-24

All the above SC2 related documents are FYI for the delegates. The proposed modification of SC2 scope (see document N2843) was approved by JTC1. The requested sub division of work (see document N2835) for Amendment 2 project has been approved. Documents N2866, N2872 and N2866 will be discussed by the editing committee for ISO/IEC 14651.

#### 6.1 Ballot results

Input documents:

2845 10646: 2003 FPDAM1 files – closes 2004-12-23 (02n3760); SC2 Secretariat; 2004-08-23 2846 10646: 2003 PDAM2 files – closes 2004-11-23; SC2 Secretariat; 02n3761; 2004-08-23

2876 Summary of Voting on ISO/IEC JTC 1/SC 2 N 3761: ISO/IEC 10646: 2003/PDAM 2, Information technology -Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 2: N'Ko, Phags-Pa, Phoenician and
Cuneiform; SC2 Secretariat- (02n3771); 2004-11-26

2879 Summary of Voting on ISO/IEC JTC 1/SC 2 N 3760: ISO/IEC 10646: 2003/FPDAM 1, Information technology -Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 1: Glagolitic, Coptic, Georgian and other
characters; SC2 Secretariat; 2004-12-27

Mr. Mike Ksar: We will review the results in this meeting.

From document N2879 for ballot on FPDAM1, of 31 national bodies, 14 voted YES (many with comments), 2 (Ireland and Japan) voted NO with comments, 3 have Abstained and 12 have not responded.

From document N2876 for ballot on PDAM2, of 31 national bodies, 6 voted YES (some with comments), 5 (Canada, China, Germany, Ireland and Japan) voted NO with comments, 7 have abstained and 13 have not responded.

# 7 ISO/IEC 10646: 2003

# 7.1 Proposed Disposition of Comments FPDAM 1

Input documents:

2879 Summary of Voting on ISO/IEC JTC 1/SC 2 N 3760: ISO/IEC 10646: 2003/FPDAM 1, Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 1: Glagolitic, Coptic, Georgian and other

characters; SC2 Secretariat; 2004-12-27

2881 Proposed disposition of comments - FPDAM1; Michel Suignard; 2005-01-23

**Output document:** 

2926 Disposition of comments FPDAM 1; Michel Suignard; 2005-01-27

2924R Summary of repertoire for FDAM 1 and FPDAM 2 of ISO/IEC 10646 - output Meeting 46 - updated; Asmus

Freytag; 2005-02-08

From document N2879 for ballot on FPDAM1, of 31 national bodies, 14 voted YES (many with comments), 2 (Ireland and Japan) voted NO with comments, 3 have Abstained and 12 have not responded.

Mr. Michel Suignard: Document N2881 is the proposed disposition of the ballot comments in document N2879. The proposed disposition of comments is organized per country. The full content of the ballot comments (minus some character glyphs) have been included in document N2881 to facilitate the reading. Comments were received from Canada, China, France, Iran, Ireland, Israel (O), Japan, Morocco and USA. We will take these comments in alphabetical order.

#### 7.1.1 Canada: Yes with comments

**Technical Comments:** 

Comment 1: Tifinagh name changes

Change the names of Tifinagh characters 2D34, 2D35, 2D3F and 2D41 (Rationale is provided in document JTC1/SC2/WG2 N2862 from Morocco, Canada and France – P. Andries).

Disposition: Accepted. New names are:

2D34 TIFINAGH LETTER YAGHH

(ending with YAGHH instead of YAGGH)

2D35 TIFINAGH LETTER BERBER ACADEMY YAJ

(replacing KABYLE in current name with BERBER ACADEMY)

2D3F TIFINAGH LETTER YAKHH

(ending with YAKHH instead of YAKKH)

2D41 TIFINAGH LETTER BERBER ACADEMY YAH (replacing KABYLE in current name with BERBER ACADEMY)

(replacing to bree in editorit hame with believe to the limit)

Canada's comment 2 for name annotation was split into two. The first was also in the comments from France, Ireland (T.6a) and Morocco.

Comment 2a: Tifinagh name annotation for 2D53; rationale in document N2862.

Disposition: Accepted to add annotation as follows:

2D53 TIFINAGH LETTER YU (Tuareg yaw)

Comment 2b: Tifinagh name annotation for 2D6F; rationale in document N2862.

2D6F TIFINAGH MODIFIER LETTER LABIALIZATION (tamatart)

This comment is similar request from France and Morocco. Comment T.6b from Ireland is requesting a name change for 2D6F (LABIALIZATION changed to TAMATART). Discussion:

- a. Mr. Michael Everson: We favour Tamatart instead of Labialization because 'Labialization' is a function.
- b. Mr. Mike Ksar: Can you live with the change? Instead of adding Tamatart as annotation can we not include it in the name?
- c. Mr. Alain LaBonté: Morocco was firm about including Labialization. So will be Canada.
- d. Mr. Michael Everson: Why would they not want to have TAMATART in the name?
- e. Mr. Peter Constable: I have a request for clarification. I recall seeing some of the documents that Tamatart was an invented name for the character during the ad hoc. The ad hoc report gave the impression that it was invented during the ad hoc.
- Mr. Michael Everson: No, the name was there in the submission.
- g. Dr. Ken Whistler: In the absence of any other information we would like to side with Canada and Morocco in this case.
- Mr. Mike Ksar: I would like to encourage Mr. Michael Everson to reconsider and side with Morocco and Canada.
- Mr. Michael Everson: It does not make sense not to include Tamatart as the name. i.
- Dr. Asmus Freytag: I have no information on suitability of the name. I think the construction 'labialization' is awkward. It is unlike anything that we have done before; like a function being included as part of the English name. Personally as contributing editor I would side with
- k. Mr. Alain LaBonté: I am chatting with the experts in Canada. Tamatart is used only by IRCAN and that is why we suggest only the annotation.
- Mr. Mike Ksar: How many modifier letters are there? Only one. Why can't we drop the 'labialization' and keep only 'modifier letter'?
- m. Mr. Michel Suignard: I would like to postpone the disposition till the interested parties get together.

Disposition: (Resolved later) - Accepted in principle. Change name and annotation as follows: 2D6F TIFINAGH MODIFIER LETTER LABIALIZATION MARK (tamatart).

Relevant resolution:

#### M46.5 (Tifinagh - changes in Amendment 1):

Unanimous

With reference to document N2862 and ballot comments in document N2879 from several national bodies on Tifinagh script. WG2 resolves to make the following changes:

- a. 2D34 is renamed from TIFINAGH LETTER YAGGH to TIFINAGH LETTER YAGHH
- b. 2D35 is renamed from TIFINAGH LETTER KABYLE YAJ to TIFINAGH LETTER BERBER
  - 2D3F is renamed from TIFINAGH LETTER YAKKH to TIFINAGH LETTER YAKHH
- d. 2D41 is renamed from TIFINAGH LETTER KABYLE YAH to TIFINAGH LETTER BERBER **ACADEMY YAH**
- 2D46 TIFINAGH LETTER TUAREG YAKH remove parenthetical annotation
- 2D53 add annotation to read TIFINAGH LETTER YU (Tuareg yaw)
- 2D58 TIFINAGH LETTER AYER YAGH (Adrar yaj)- remove 'staggered five-points' in the parenthetical annotation
- 2D6F is renamed from TIFINAGH MODIFIER LETTER LABIALIZATION to TIFINAGH MODIFIER LETTER LABIALIZATION MARK (tamatart).

Comment 3: Tifinagh characters to be added to annex E.2, list of mirrored characters --

2D39, 2D3A, 2D3E, 2D41, 2D49, 2D4E, 2D4F, 2D50, 2D5B, 2D5E, 2D5F, 2D62 and 2D64 -- all having glyphs with vertical asymmetry. Rationale is provided in document WG2 N2863 from Canada – P. Andries). If Annex E.2 is to include characters with vertical symmetry also, then the entire set of Tifinagh characters is candidate similar to the current Old Italic characters (10300-10323) entries in the Annex.

Mr. Michel Suignard: The list in E.2 is a strange animal; the writing can go either way. The current content of E.2 and the proposal are not consistent.

#### Discussion:

- a. Dr. Umamaheswaran: There is a Canadian defect report on the current content of E.2 in document N2877.
- b. Mr. Michel Suignard: We will revisit after defect report.

Document N2877 was discussed (see section 11.1 on page 54).

Disposition: Accepted in principle. See relevant resolution M46.1 on page 55.

It was agreed to remove the specific list for Old Italic in E.2 and not to add the proposed Tifinagh characters.

Comment 4: Postpone encoding of Coptic characters 2CE6, 2CE7, 2CE8 and 2CEA, till more justification for inclusion of these abbreviations is provided.

(This comment was delegated to the ad hoc on Coptic to discuss and recommend a disposition.)

Comment 5: Case-paired characters in Coptic

The request is to remove Coptic characters that are considered to be artificial case variants in a case less script.

Mr. Michel Suignard: These comments recognize that some characters have acquired casing behaviour. But do not provide which specific ones should be considered artificial case variants, making somewhat difficult to dispose this comment.

(This comment was delegated to the ad hoc on Coptic for discussion and recommendation of disposition.)

Ad Hoc discussion with participation by Messrs. Ken Whistler, Michael Everson, Asmus Freytag, Peter Constable, Alain LaBonté with live on line chat with Messrs. Patrick Andries and François Yerqeau concluded that Canadian comments cannot be reconciled.

Disposition: Not accepted.

During the ad hoc discussions, Canada was satisfied with the explanation given for three of the four characters -- 2CE6, 2CE7 and 2CE8. Canadian experts could not agree on 2CEA. Casing pair is what the proponents of Coptic want. Canada requested their input disagreeing with the decision to be recorded in the disposition of comments. The following text was communicated to the editor and has been included in the final disposition of comments document N2926.

"The issue of the proposed encoding of 4 abbreviations (2CE6, 2CE7, 2CE8 and 2CEA) opposed by Canada was discussed in an ad hoc meeting. Contrary to 2CE4, 2CE5 and 2CE9, for which evidence of existence as symbols was present in the proposal, no such evidence was present for 2CE6, 2CE7, 2CE8 and 2CEA. The meeting produced enough evidence for 2CE6, 2CE7 and 2CE8 to be encoded as symbols, but Canada remains unconvinced that 2CEA COPTIC SYMBOL SHIMA SIMA is anything but a normal contraction. Canada would have been convinced that 2CEA was indeed a symbol if evidence had been given of SHIMA SIMA contractions, which are systematically not ligated (viz. the SHIMA is not flattened and linked to the SIMA). Should this 2CEA be encoded, the reference glyph should at least be one with a bar above, which is by far the most common form for the /cois/ abbreviation. Evidence to that effect was shown from the set of fonts called the Coptic Font Standard (http://www.copticchurch.net/coptic fonts/), used for standardized interchange prior to UCS standardization of Coptic; no contrary evidence was supplied. Similar usage is found in most textbooks Canada has seen."

"The issue of encoding Coptic as a cased script was discussed in an ad hoc meeting. It was argued that the application of casing pairs to Coptic letters is not a question of inventing letters which do not exist; it is an application of systemic logic based on the encoding model selected, which model is not made explicit anywhere but in its results. Canada does not consider such a model sufficient grounds for encoding non-existent characters and maintains its objection to encoding case counterparts to old Coptic characters when they have never existed. This model does not seem suited to the actual characters found in Coptic and should be reviewed."

# 7.1.2 China: Yes with comments

**Technical Comments:** 

Comment 1: The shape of U+23DA (EARTH GROUND) glyph is not the same as original submission for HKSAR submission (H-889A).

Mr. Michel Suignard: It seems fair to come up with a glyph, which has more similarity with the original submission. We may want to revisit the glyph. Discussion:

- a. Dr. Asmus Freytag: the current shape came from HKSCS. There are other publications showing different symbols. I would like to use the generic ones for Ground Symbol; not sure what we have is the correct one. We can deal with this as an editorial issue. We can work with HKSAR to come up with the best glyph that would be generic and acceptable for HKSAR. I would like to do this off line.
- b. Mr. Mike Ksar: We delegate this to the editor to come up with the best glyph.
- c. Dr. Asmus Freytag: HKSAR will get the correct glyph with the correct set of fonts.

Disposition: Accepted in principle. The editor will discuss the number of bars in the symbol with HKSAR and compare with generic usage.

Comment 2a: New Tai Lue fonts used in the Amendment text is different from that provided by China. Mr. Michel Suignard: I suggest we accepted in principle assuming such a font is provided to the contributing editors.

Discussion:

- a. Mr. Chen Zhuang: I had sent the font to Mr. Michael Everson about a month ago.
- b. Dr. Asmus Freytag: For official purposes I as the contributing editor must receive the font. It has to be provided under the font policy we have adopted. I don't like to see various people discussing on which font is the optimum etc. The glyph shape is editorial. We can discuss this off line and resolve the issue outside the plenary.
- Mr. Mike Ksar: If you send someone a font at least inform me. It is extremely important.
- d. Mr. Michel Suignard: I would like reaffirm that every time there is an improved font for Amendment text it has to be sent to the contributing editor who is preparing the charts /
- e. Dr. Asmus Freytag: I rather have the font sent to me directly.
- Mr. Mike Ksar: You must inform the Project Editor that you have sent font to xyz etc.
- Mr. Michael Everson: I have received it in July. I did not take note of it at that time.

Disposition: Accepted in principle. The improved font will be given to the contributing editor to check and use if appropriate.

Comment 2b: The name of New Tai Lue character U+19DF should be LAEV rather than LEW. Mr. Michel Suignard: It should be LAEV instead of LEW. Discussion:

- a. Dr. Ken Whistler: there is a potential confusion with 19DE New Tai Lue Sign LE. Changing LEW to LAEV is potentially introducing question on 19DE.
- b. Mr. Peter Constable: The suggested change for one to LAEV will need examination of the name for 19DE and change from LE to LAE.
- c. Mr. Chen Zhuang: Are you suggesting another change?
- d. Mr. Michel Suignard: 19DE is proposed to be changed to LAE.
- e. Mr. Chen Zhuang: I will confirm this afternoon.

Disposition: Accepted (pending confirmation by China; was confirmed before end of meeting):

19DE NEW TAI LUE SIGN LE is renamed to NEW TAI LUE SIGN LAE

19DF NEW TAI LUE SIGN LEW is renamed to NEW TAI LUE SIGN LAEV

See relevant resolution M46.6 item a on page 32.

Comment 2c: Use Dai rather than Tai in script name for New Tai Lue.

Mr. Michel Suignard: We have already changed the name once. Does this mean change all occurrences of 'Tai' to 'Dai' for the script name and characters? If yes, the editor is not in favour of it, as this requires a lot of editing work.

### Discussion:

- a. Mr. Michael Everson: The names use a particular transliteration. The D is from a different system. If we do accept it we have to accept all changes.
- b. Mr. Peter Constable: D is from Pinyin and T is from English. To be consistent Tai Le script also should be revisited. It uses T. English transliteration should be used instead of Pinyin. We should stay with T.
- c. Mr. Chen Zhuang: I am asking only to change New Tai Lue to New Dai Lue.
- d. Mr. Michel Suignard: The change will introduce inconsistency.
- e. Mr. Chen Zhuang: Ok. I accept the T.
- Mr. Michel Suignard: Will China be withdrawing this comment?
- q. Mr. Mike Ksar: It will be easier if China withdraws the comment rather than disposition being Not Accepted.
- h. Mr. Chen Zhuang: The minutes can show that it was discussed but 'Not Accepted'. Our Yes will stav.

Disposition: Not accepted. The T in Tai stays.

Comment 3: IICORE - request to update the list of characters and source information according to IRG#23 resolutions.

Mr. Michel Suignard: A cursory check by the editor seems to indicate that the collection content is unchanged, however this should be confirmed by another source. IRG 1095 was compared with what I had received before. There was no difference. It looks like what is in the document is in line with the latest from IRG. There is a Japanese comment on what to do with the Source Information; we will revisit this.

#### Discussion:

- a. Mr. Yasuhiro Anan: The set of IICORE characters on WG2 site is different from what Dr. Lu Qin has sent you.
- Mr. Michel Suignard: There is only one character that was different. There is also a question on source information. I will double check offline with Dr. Lu Qin on that.

Disposition: Accepted in principle.

#### France: Yes with comments

**Technical Comments:** 

France supports comments in document N2862.

See discussion under Canada in item 7.1.1 on page 16.

Disposition: Accepted in principle. Same as disposition for Canadian comments 1, 2a and 2b. See relevant resolution M46.5 on page 17.

### Iran, Islamic Republic of: Positive with comments

Technical Comments:

Request to use the same font for Arabic Supplement block (U+0750-U+077F) character tables as the font used for Arabic block (U+0600 .. U+06FF).

Mr. Michel Suignard: This is really font issue.

Dr. Asmus Freytag: such comments should be editorial. There are differences in the font styles. The intent is good. I can improve the font to try and satisfy the Iranian comment. We should note the desirability of having a consistent font. I will work with relevant experts.

Action item: Editor and co-editor to work with relevant experts and get consistent fonts for Arabic and Arabic Supplement code charts.

Disposition: Noted.

# 7.1.5 Ireland: Negative

**General Comments** 

Our vote will change to Approve if comments are satisfactorily addressed. Strong support for Tai Lue and does not favour its alteration or deletion.

Disposition: Noted.

#### Technical comments

T.1, T.2 and T.4 - These comments all relate to a new character requested -- add new character HEBREW POINT HOLAM HASER FOR VAV at U+05BA, moving current HEBREW POINT QAMATS QATAN in FPDAM1 to U+05C7.

Mr. Michel Suignard: This comment is similar to US comment T.11. This is a proposal for a new character and associated moving of an existing character in the Amendment. Israeli comments are to be addressed as well.

See discussion under agenda item 7.4.2 on page 40.

Disposition: Accepted in principle. New character was accepted for inclusion in Amendment 2. See relevant resolution M46.22 item a on page 45. The requested move of HEBREW POINT QAMATS QATAN from 05BA to 05C7 (resolution M46.6 item b on page 32).

Mr. Michael Everson: Ireland withdraws comment T.4 for new character request in Amendment 1.

T.3 - With reference to document N2860 on Orthographic Glottal Stops, either add 0242 of the character x-height LATIN SMALL LETTER GLOTTAL STOP as the casing partner of 0241 LATIN CAPITAL LETTER GLOTTAL STOP or remove the capital letter pending further study.

(Note: Document N2860 is the wrong reference, it should perhaps be document N2789 on Orthographic Glottal Stop, which was discussed in meeting M45.)

Mr. Michel Suignard: This is a request for character addition (0242 LATIN SMALL LETTER GLOTTAL STOP). In general character additions at the resolution time of the FPDAM ballot comments should be minimized because other national bodies have no chance to provide feedback.

Action item: All national bodies - to take note to restrict their ballot comments to the content of the document under ballot. All proposals for new character or new material for the standard should be made as independent contributions outside the ballot comments. The project editor has the prerogative of ruling such proposals to be 'out of order - not related to the text under ballot' and ignore them completely.

# Discussion:

- a. Dr. Ken Whistler: US committee is opposed. There are technical issues.
- b. Dr. Asmus Freytag: Even if we accept it there may have to be changes in code positions.
- c. Mr. Mike Ksar: Mr. Michel Suignard is stating that character additions at the FPDAM stage do not give an opportunity to review at the national body level. If this could be postponed it would be ideal to get a consensus. I recommend that we do not accept the character in this Amendment.
- d. Mr. Michel Suignard: It is up to Irish national body to convince other national bodies that this character be accepted for Amendment 2 – but it has to be accepted by other national bodies.
- e. Dr. Umamaheswaran: We can entertain the request for adding to Amendment 2 now or before the meeting ends, and we can take a resolution at which time the national bodies can voice their opinion. If it goes into Amendment 2 it will go for national body ballot and national bodies will get an opportunity to review it.

- f. Mr. Michael Everson: Ireland believes that the casing aspects have not been taken care of adequately... if we accept the new character for Amendment 2 it would be OK. Otherwise, Irish request is to remove the Small Letter from Amendment 1.
- g. Mr. Mike Ksar: It is not wise either to remove the current letter from Amendment 1 or add the new character to Amendment 1. We could entertain adding the new character to Amendment 2 giving the national bodies a chance to ballot.
- h. Mr. Masahiro Sekiguchi: In general it is not wise to remove a character, but in this case it is not so dangerous. Removal is easier at this stage than adding a new one. I do not wish to add the new character at this stage, but we can remove the current character.
- i. Mr. Peter Constable: At the last meeting we did discuss moving the character in current Amendment 1 to Amendment 2. The decision that was made to put into Amendment 1. If we do remove this character at this stage we will reverse the decision. Does Canada have any additional input from the native user community?
- j. Dr. Umamaheswaran: No, we don't have any additional input. I thought the input was that there was only one case of this character in use. The other form that is proposed is the artificial one.
- k. Mr. Peter Constable: The user community does use upper and lower case pair. In Toronto it was described that the Capital letter is currently used. A third character should not be added. There is a character that is in UCS that is used for one of the forms.
- I. Mr. Mike Ksar: The proposal is to postpone the character to future Amendment.

Disposition: Rejected removal of current character as well as addition of new character in Amendment 1.

*T.5* - Add BENGALI DANDA at position U+09E4 and BENGALI DOUBLE DANDA at position U+09E5. Can accept postponing to Amendment 2.

Mr. Michel Suignard: This is for WG2 to discuss and decide. This should be discussed within Amendment 2 ballot resolution. There is another agenda item on the subject of Dandas in Indic scripts. Discussion:

- a. Dr. Umamaheswaran: Till the disunification question of Dandas across all Indic scripts is addressed, such individual script requests should not be entertained.
- b. Mr. Masahiro Sekiguchi: It is not appropriate for Amendment 1.

Disposition: Mr. Michael Everson: We withdraw comment T.5.

*T.6.a* - Change names of Tifinagh characters -- 2D34 from "YAGGH" to "YAGHH", 2D35 from "KABYLE" to "BERBER ACADEMY", 2D3F from "YAKKH" to "YAKHH", 2D41 from "KABYLE" to "BERBER ACADEMY".

Mr. Michel Suignard: This comment is similar to comment 1 from Canada and comments from France and Morocco. See discussion of comment 1 in item 7.1.1 from Canada on page 16.

Disposition: Accepted.

*T.6.b* - Change name for Tifinagh character 2D6F from "LABIALIZATION" to "TAMATART"; "labialization" is a function and "TAMATART" is an actual name.

Disposition: Accepted in principle. See disposition of comment 2b in item 7.1.1 from Canada on page 16. Add the word 'MARK' to the name with annotation 'tamatart'. This will satisfy comments from the US, Ireland and Canada. See relevant resolution M46.5 on page 17.

*T.6.c* - Delete the parenthetical notes for Tifinagh characters -- "(Tuareg four-points)" and "(Tuareg staggered five-points)" - rationale is given.

Mr. Michael Suignard: This is for WG2 decision. The proposal is to accept. Discussion:

- a. Mr. Alain LaBonté: Canada has problems with the proposed removal of annotation.
- b. Mr. Michel Suignard: The description of this nature should be evident from the glyph.
- c. Mr. Alain LaBonté: Mr. Patrick Andries (in on line chat with Mr. Alain LaBonté) says there are similar situations in Coptic.

- d. Mr. Mike Ksar: Annotations are to clarify and not to describe the shape.
- e. Mr. Michael Everson: The comment is based on trying to interpret the English annotations used. It may have been ok in French. Other annotations that describe sounds are fine. The annotation making four points and staggered etc. does not help.
- Mr. Alain LaBonté: Mr. Patrick Andries says 'Four Dots' may be used instead.
- g. Mr. Michael Everson: We do have others with dots etc. These are physical descriptions of the characters and do not really add any value.
- h. Mr. Michel Suignard: The Irish comments are very compelling to removing the annotations.
- Dr. Asmus Freytag: In ISO/IEC 10646 we have always been restrictive about annotations. We can add to Unicode if needed.
- Mr. Alain LaBonté: It should be OK.

Disposition: Accepted. See relevant resolution M46.5 on page 17.

T.7 - Request to replace table 115, CJK Basic Strokes with Table from document N2864 (see agenda item 0 on page 43); could postpone to Amendment 2 but after removing it from Amendment 1.

Mr. Michel Suignard: In general character additions at the resolution time of the FPDAM ballot comments should be minimized because other national bodies have no chance to provide feedback. So it is unwise to add 24 new characters at this stage. At the same time, the encoding of the original 16 CJK Basic Strokes is quite urgent because it is part of a well known repertoire (HKSCS) which is widely implemented and is currently partially encoded using Private Use Area. While it would have been more elegant to encode the whole set at once, the reasons given in document N2864 do not justify such a delay. For example, sorting always require additional table and code location in ISO/IEC 10646 is typically a poor hint for such usage (including for the basic ASCII set). Finally document N2864 does not question the acceptance of the 16 original characters. It only ask for a re-ordering and new characters, so it is additive in nature and should not be perceived as negative toward the original proposal.

See additional comments concerning that block in comments Japan - J3 and J4, US T.8.

Mr. Michael Everson: Ireland withdraws this comment.

#### Editorial comments:

E.1 - Sub-clause 27.1. Check if "11-lines header" and "12-lines header" should be "11-line header" and "12-line header".

Disposition: Accepted in principle.

Mr. Michel Suignard: This notation is used everywhere a linked text file is pointed to in the standard and in the Amendments. Today the vast majority use the 'xx-lines' notation instead of 'xx-line': the only exception being Annex R with a '5-line' mention in the Note page 1396. This will be fixed in the next edition.

E.2, E.3, E.6, E.8, E.9, E.10 and E.13 were all accepted, as proposed by Ireland.

E.4 Clause 33 (and elsewhere) - Change "1st" to "first"

Disposition: Partially accepted. The requested change is consistent with other occurrence of 'first edition'. However using superscript for numeric notation is common editing practice and has nothing to do with Microsoft Word behaviour and is in fact used frequently in the current standard without objection by other parties.

E.5 - text at the bottom of page 5, first column, replace "insert H Hanzi content" with "insert H-Hanzi content".

Disposition: Accepted in principle. Change 'H Hanzi content' to 'Hanzi H source content' and 'J3A Kanji content' to 'Kanji J3A source content'.

E.7 - Annex F.1.1. In the note, replace for "one of the two case" with "one of the two cases". Disposition: Accepted in principle.

*E.11* - Correct the glyphs for 075B and 076A in Arabic supplement block so that the overlap error does not occur.

Disposition: Accepted in principle. See comment from Iran, which is also proposing to provide new glyphs for the whole new block.

E.12 - The Ethiopic glyphs at 125A-125D and 1260-1261 must be shown.

Disposition: Accepted. . Already noted page 3 of the Amendment.

Mr. Michael Everson: Based on the dispositions to the Irish comments, Ireland reverses its negative ballot to positive.

#### 7.1.6 Israel (O-member)

**Technical Comments** 

SII requests all Hebrew characters not needed by modern Hebrew be considered together and deleted from current Amendments. Several concerns were expressed in point form.

#### Discussion

- a. Dr. Ken Whistler: The US is not in favour of removing any characters.
- b. Mr. Mike Ksar: We have accepted the characters Israel had a chance to look at the proposals.
- c. Dr. Asmus Freytag: In principle one user community should not go against the interests of others.
- d. Dr. Umamaheswaran: Israel is not against encoding, but they seem to be seeking further discussion per comment 5.
- e. Mr. Michel Suignard: Israel has not come up with any positive contributions.
- f. Dr. Ken Whistler: The community using these have implementations ready to ship. The notion that these characters can be discussed further will only hurt the users waiting for the encoding.
- g. Mr. Peter Constable: One of the concerns expressed by Israel is instability. That means everything should be consolidated in one proposal. We have spread the characters over a number of Amendments. Stability is done by implementation, so there is no reason to delay any further.
- h. Mr. Mike Ksar: Their input is appreciated. The documents were circulated earlier to everyone concerned.

Disposition: Comments are noted.

See relevant resolution below:

#### M46.32 (Ballot comment from Israel):

**Unanimous** 

With reference to the input and request to delete all Hebrew related proposals from Amendment 1 from Israel, WG2 appreciates the input but cannot accommodate the request for the following reasons:

- Although the Hebrew additions were submitted in several documents, the bulk of the proposal is in Amendment 1 with a minor addition in Amendment 2. So the changes are processed in a manner which is already as less disruptive as possible.
- The additions are not invalidating existing data.
- The Hebrew block is not just covering the need of the Modern Hebrew community, but also the need of the Biblical Hebrew community, which has expressed a strong interest in getting these additions and is awaiting the adoption of these characters. Because the additions do not invalidate Modern Hebrew there is no need to postpone them.

The ISO amendment process is giving all the interested parties, including Israel, sufficient time to provide feedback; therefore it does not seem necessary to postpone further the additions of these characters.

# 7.1.7 Japan - Negative

**Technical Comments** 

*J1* - Align graphics for J3A Kanji with referred JIS in clause 33 and seven sub-tables of CJK Unified Ideographs code tables making the reference as accurate as possible.

Mr. Michel Suignard: Recommend acceptance. In fact the graphics provided (in the ballot response) above are sufficient for the Amendment publication itself.

#### Discussion:

- a. Dr. Umamaheswaran: Are there any items associated with Fonts needed for Amendment
- b. Mr. Michel Suignard: We will need the font only for next edition, not for Amendment text.
- c. Mr. Masahiro Sekiquchi: We can discuss the fonts with IRG at the time of publication of next edition. I prefer that the correct fonts be used for the Amendment text itself.
- d. Mr. Michel Suignard: I can take the graphics provided by Japan to prepare the Amendment text. All the characters in the J column can be replaced with the glyphs from Japanese comments – using pictures, unless I get the font for it.
- Mr. Masahiro Sekiguchi: That is fine.

Disposition: Accepted.

Action item: IRG has to take note of the specific shapes required for these characters when the next edition of the standard is to be published.

- J2 IICORE collection in Annex A.5 should be specified only by code points use the file provided by IRG as document N1095.
- J2. (b)- In new clause A.5.2, change count 9811 to 9810 characters.
- J2. (c) In the third paragraph in new clause A.5.2, any references to the 2nd or later fields should be removed, in accordance with WG2 Markham and IRG Jeju meeting decisions.

Mr. Michel Suignard: Recommend acceptance. Although we may want to confirm, that now it is clear it is not source information but rather usefulness index for a given East Asian market, whether the information we just removed should be made public or not. We could have stayed strictly within the boundary of what we talked about in WG2. Part of the feedback was the source information was confusing. It is not the same as source information. The information was to indicate where the information was taken for IICORE. IRG has already stated that the working document will be the full document. To some degree we are forcing IRG to remove some of the items from their work for the standard. It would have been easier if we use IRG information directly. The source information is useful for seeing where the characters are useful in different markets. I would like to maintain the information in IICORE. IRG is maintaining the file so far. Except for the character value we really don't need to exercise scrutiny other than the code points etc.

#### Discussion:

- a. Dr. Umamaheswaran: The information used for IICORE is different from the other collections that are in the standard. We have created a new kind of collection here, if you compare for example the complete ISO/IEC 10646. Also the P&P document may have to be updated to reflect the new format etc.
- b. Mr. Masahiro Sekiguchi: The source information may contain some errors from IRG point of view. Based on discussion on how to correct such possible errors etc. it would be easier to remove that information from collection identification than including the information. However, the information from IRG is a little more stable. It is OK for Japan to include the information in IICORE - the source information is more stable.
- c. Mr. Michel Suignard: We could either accept Japan's proposal ... or take the latest information from IRG as the update to what we have in the standard.
- d. Dr Lu Qin: we are still awaiting information from DPRK before we can firm up the content of the IICORE. The naming of the source has not been confirmed. The identification like standard 1, standard 2 etc. is already done, just confirmation of the names.
- e. Mr. Yasuhiro Anan: The format itself has been finalized in the IRG site. DPRK has not confirmed the content of the file.
- f. Mr. Mike Ksar: We cannot wait indefinitely for confirmation from DPRK in IRG. We need to get confirmation before end of this meeting.
- g. Mr. Michel Suignard: The IICORE collection is a special one. It is very big, not continuous etc. and we have to document a different format anyway. We are not going out of the procedure in many ways. We have to use a linked text file.
- h. Mr. Mike Ksar: Would like to address Dr. Umamaheswaran's concerns.
- Dr. Umamaheswaran: We seem to be introducing a new kind of beast here for collections.

j. Mr. Michel Suignard: Will add new text to indicate that the 'source information associated with IICORE collection files is different from the source information that is used to identify the CJK unified ideographs in the standard. The count is based on the file received from IRG. As of today it is 9810. If there is any discrepancy I will take it up with IRG.

Disposition: Accept the new format for documenting the IICORE collection and update the P&P accordingly. The count will be adjusted to match the IICORE file content. See relevant resolution M46.6 item c on page 32.

Action item: Ad hoc P&P is to reflect IICORE collection format in P&P document.

J3 - The word "Basic" should be removed from block, collection and character names of CJK Basic Strokes in 31C0 to 31EF range. The word leaves a false impression that there were non-basic (extended?) strokes as well! It was not the intention to classify CJK strokes into two sets: basic strokes and non-basic strokes.

(Also see the comment J4 below for 31C3, 31C9 and 31CC.)

Mr. Michel Suignard: Simply changing the names removes this possible confusion. WG2 should agree on the block, collection and character name change. Discussion:

- a. Dr. Lu Qin: Agree
- b. Dr. Ken Whistler: The US does not object in principle, but there is a lot of work associated with the change.
- Mr. Michael Everson: It is a good idea. I can update the Roadmap from Basic Strokes to CJK strokes.

Disposition: Accepted. See relevant resolution M46.6 item d on page 32

Action item: Mr. Michael Everson to reflect changed block name CJK STROKES in the roadmap.

J4. Change names for 31C3, 31C9 and 31CC to more appropriate ones.

"31C3 CJK BASIC STROKE XG-2" to "31C3 CJK STROKE BXG"

Following character-naming convention introduced in IRG N987 (Stroke types in CDL), it makes more sense to use combination of one letter abbreviated type names -- BXG stands for Biǎn-Xié-Gōu.

"31C9 CJK BASIC STROKE SZZG" to "31C9 CJK STROKE SZWG"

The shape of the last segment for this stroke looks more like WG rather than ZG.

"31CC CJK BASIC STROKE HPWG" to "31CC CJK STROKE HGWG".

The shape of the upper segment for this stroke looks more like HG rather than HP.

The above assume that removal of BASIC in comment J3 has been accepted.

Mr. Michel Suignard: Renaming of 31C3 is also part of the US comment T8, which is asking it to be renamed WOG per its traditional Chinese name ('WOG' is short for wogou, the Chinese name for this stroke type) and is based on a recent contribution by the original submitters (see document N2864 by Messrs Thomas Bishop and Richard Cook). Based on this, it seems preferable to use for 31C3 the name WOG as suggested by the US. I suggest that we accept the US position.

Concerning the two other name change requests the US is not in favour, based on comments by Mr. Richard Cook:

"Note that CDL distinguishes HP and HG strokes, and we call this other one HPWG rather than HGWG. I think that the use of P vs. G hinges on the fact that the G hook segment is always a final flourish (always stroke final) and is not an intermediary segment. The P strokes can be final, and can have various degrees of curvature, ranging from near zero to more curved to very curved. HPWG can have a little curve or none at all in the P segment, so in this case this distinction is not distinctive. Note that there is some unavoidable (or traditional) inconsistency, I think, in some of the stroke naming. For example, CDL follows the tradition and distinguishes shu

gou SG (vertical segment with hook rising to the left) and shu ti ST (vertical segment hook rising to the right), using T for the final flourish of the latter stroke, perhaps simply because the traditional name SG was already taken. In other cases a right (or left) rising hook is called G. Note that in the case of HZT vs. HZG the G hook goes to the left, while the T always goes to the right. Again: if the name were to be changed to HGWG, this would imply not one stroke, but two, HG + WG, since G is always stroke terminal."

#### Discussion:

- a. Mr. Yasuhiro Anan: There are two contributions at the IRG last meeting. One from Taiwan and the other one from Mr. Richard Cook. Per Mr. Richard Cook's document depending on the features, combination of one letter for one feature - Page 11 .. 31C3 WOG -- it gives two letters for one feature, we consider adopting WOG as well; however W is used for another feature. We don't want to reuse W. That is why we proposed BXG. We like to make sure that the strokes of HKSCS can be represented by the naming convention. If we fail to represent each stroke by the proposed names we may run into problems with other features or shapes that may be considered to be unified with the HKSCS strokes. As long as there is no ambiguity we can change.
- b. Mr. Michel Suignard: You really want to keep the first one, but the other two are OK. I would like to get opinion of HKSCS. We are getting conflicting opinions.
- c. Dr. Lu Qin: The US suggestion is on two characters. The first one is not consistent with other names. I would say no to the first one. For the second also I would say 'no'. WO is a hook. For everything else we use a single character per feature. It is inconsistent. Japanese proposal is systematic and should be OK. XG-2 to BXG is OK too.
- d. Mr. Yasuhiro Anan: 31C9 looks like a horsetail per Mr. Richard Cook it is based on strokes from left to right. However the tail is not straight it is slightly curved. We are not sure if we can consider these to be equivalent. As to 31CC, per Mr. Richard Cook's document these can be divided into two strokes hypothetically. The IRG stroke ad hoc group considered these strokes to be different combination. If the unification is different with another stroke we will have an identification problem.
- e. Mr. Michel Suignard: My proposal is not to get the CDL proposal off the ground. My concern is that HKSCS subset of strokes is correctly represented with minimal controversy with HKSCS.
- Dr. Lu Qin: 31C3 we can accept Japanese proposal. Reject US change. XG-2 to BXG. 31C9 - we can take Japanese suggestion. SZZG to SZWG. 31CC does not have to be changed; to be consistent with previous one we want to keep HPWG instead of HGWG. The US comment is not accepted. 31C4 - we will accept US position - SZ to SW.

Disposition: Accept J4 in principle. See relevant resolution M46.6 item d on page 32.

As a result of the above dispositions, Japan vote changed to Acceptance.

#### 7.1.8 Morocco, Yes with comments

**Technical Comments** 

See document N2862. See discussion and disposition of Canadian comments 1, 2a and 2b in item 7.1.1 on page 16.

Disposition: Accepted in principle. See relevant resolution M46.5 on page 17.

#### 7.1.9 **USA:** Yes with comments

Technical comments:

T.1 - Update definition of 'composite sequence' in sub-clause 4.14 to include ZWJ and ZWNJ to: 'A sequence of graphic characters consisting of a non-combining character followed by one or more combining characters, ZERO WIDTH JOINER, or ZERO WIDTH NON-JOINER (see also 4.xx)'.

Disposition: Accepted.

T.2 - Add guidelines for naming of blocks similar to guidelines for naming characters, allowing lowercase a-z in addition.

Mr. Michel Suignard: This is related also to Amendment 2 on N'Ko names. Discussion:

a. Mr. Masahiro Sekiguchi: Don't understand why this comment is on Amendment 1. I can understand the comment.

- b. Dr. Asmus Freytag: This is a comment on principle associated with the standard. We should have principle similar to the name rules for the English version of the standard. Translated versions can have their language specific rules.
- c. Mr. Masahiro Sekiquchi: I do want to have restrictions on block names. I am not objecting to the proposal itself. However, my concern is more procedural. Why is it part of Amendment 1 ballot comments?
- d. Mr. Michel Suignard: To some degree it has been answered by Dr. Asmus Freytag. It is better to have the guideline in place before applying it.
- e. Dr. Ken Whistler: In Amendment 1 there is text that affects names of characters in Annex L. There is no text affecting Annex L in Amendment 2. We might as well change Annex L once than in two separate Amendments.
- Mr. Mike Ksar: We could take a resolution at this meeting. We need to approve a resolution on the block name rules before the name change for N'Ko.
- q. Mr. Masahiro Sekiguchi: We do have several concerns about the proposal. ISO/IEC 10646 has the notion of collection names as well. Based on discussion on N'Ko in Amendment 2 Japan is considering similar rules for collection names as well. This is not covered by US comment on Amendment 1. At this moment I am not sure the character names, collection names and block names should be all addressed together. We should consider these more carefully before we consider revising these names. We are looking at FPDAM for Amendment 1 and don't want to see big changes. If we accept it an important text is being introduced without giving national bodies a chance to review.
- h. Dr. Umamaheswaran: Procedurally the comment should have been made as a separate contribution instead of being part of the ballot comments for FPDAM1. This is an important piece of text – it should be included in Amendment 2 – considering its importance.
- Mr. Michel Suignard: Annex L is currently used defacto normatively. We should consider changing its status.
- Mr. Mike Ksar: We should take it offline and come up with a decision on what to do, including what to do with Annex L.

See discussion under agenda item 8.3 on document N2919 on page 49.

Dr. Ken Whistler: The US withdraws this comment from Amendment 1 ballot comments.

T.3 - Sub-clause 20.4 Variation selectors - replace the two last sentences in Note 4 with:

"All the allowed sequences using variation selectors are defined in this clause; all other such sequences are undefined. Furthermore, no sequences containing variation selectors and a mix of combining characters or composite characters will be defined."

following the paragraph starting by "No sequences using characters..." in the same sub-clause.

Mr. Michel Suignard: this is a clarification wording. Even though it is editorial we wanted everyone to be aware.

Disposition: Accepted.

T.4 - Replace use of 'text element' or similar terms versus 'CC-data element' (example: in Note 3 of clause 24 and sub-clause F.1.1)

Disposition: Accepted -- this is an editorial change for consistency in the standard.

T.5 - Request to add naming guidelines for Named USIs, pursuant to resolutions M44.16 and M45.8.

Mr. Michel Suignard: We already have approved USIs in the last meeting but have not been included in the Amendment pending description of USIs. These should be accepted as well. Discussion:

- a. Dr. Umamaheswaran: Some text is also to be added to describe the Named USIs. Are these normative?
- Mr. Yasuhiro Anan: US national body was to propose more details on USI. There was a comment that this action item was completed. I would like to see the proposal from the US national body if this has been done. We should not go ahead accepting this till we see that contribution.

The US ballot comment will be addressed by discussion on new contribution N2921 under agenda item 8.5 on page 51.

Dr. Ken Whistler: The US withdraws the comment as an FPDAM1 comment.

T.6 - Change the glyph for 01B3 LATIN CAPITAL LETTER Y WITH HOOK per document N2859. See discussion and relevant resolution on defect report document N2859 under agenda item 11.2 on page 55.

Disposition: Accepted.

T.7 - Miscellaneous Symbols and Arrows - Swap glyphs between 2B00-2B01 and 2B08-2B09.

See discussion and relevant resolution on defect report in document N2968 under agenda item 11.3 on page 55.

Disposition: Accepted.

T.8 - Change names of 31C3 to ' ... WOG' and 31C4 to ' .... SW' from SZ to be compatible with documents N2808R and N2817.

Disposition: Partially accepted. See discussion and disposition under Japanese comment J4 on page 26, and relevant resolution M46.6 item d on page 32.

T.9 - Add missing CJK Unified Ideographs H sources pursuant to resolution M45.8 and document N2808. Mr. Michel Suignard: This was an oversight on the part of the editor. The count 42 mentioned in the US comment has to be corrected. I would like to add 18 new ones that appear on the linked file. Also add year 2004 to identify the new 18 entries referenced as HKSCS-2004. It should be noted that since the comment was created, the document linked to above has grown by another 18 characters already included in the standard. It would be preferable to add them as well in the source reference files. It is however necessary to date the Hanzi H source as the content has changed significantly through the vears.

#### Discussion:

- a. Dr. Lu Qin: The set of HKSCS 2001 to 2004 differences is 123. The list is under review in IRG and will be completed.
- b. Mr. Michel Suignard: If the complete set is available we can include them in Amendment 1.
- c. Dr. Umamaheswaran: Only if the complete set of 123 characters is approved by HKSCS before Amendment 1 text is ready to publish.

Disposition: Accepted. See relevant resolution M46.6 item e on page 32.

T.10 - CJK Unified Ideographs J sources - add missing source references that were added from JIS X 0213 - for example 69E9, 69EA that are both J3 level-3 ideographs. Possible source references for these are J3 (JIS X 0213:2000 level-3). J3A (JIS X 0213:2004 level-3) or J4 (JIS X 0213:2000 level-4) and possibly J4A (JIS X 0213:2004: level-4), assuming that all JIS X 0213:2000 level-1 and level-2 are already referenced. Also provide source references for CJK Compatibility and Extension B ideographs. The source references could be by reference to another JIS document (ISBN4-542-20129-5) published in 2002. Original J4 source reference for U+9B1D should be preserved.

Mr. Michel Suignard: Several characters from JIS X0213 are in Extension B. Several of these are included as source references, but many are not. The source information is not strictly a mapping information. Sometimes the mappings have been changed but the source references do not change. The US proposal is to document the missing JIS X 0213 characters as source references. I would like WG2 to request Japan to provide the information. Discussion:

- a. Mr. Masahiro Sekiguchi: I personally agree with you that paper document look up is inconvenient for mapping information. As Japanese delegate the JIS standard is published that way.
- Mr. Mike Ksar: Can I request a Japanese expert to look up JIS X 0213 and make a contribution containing the source information requested to WG2 in soft copy form, after any necessary verification with Japanese national body.

- c. Mr. Masahiro Sekiguchi: To avoid such mistakes, the Japanese national standard already contains that information. You can reference that document.
- d. Mr. Michel Suignard: The source information has been given partially for Extension B. It is incomplete in ISO/IEC 10646 and is inconsistent for the missing information.
- e. Dr. Umamaheswaran: The problem seems to be that there is still confusion between mapping and source information issue.
- Mr. Masahiro Sekiguchi: The source information was supplied for purposes of Identification of the characters. The JIS standard was published after the ISO standard was published, and does not qualify to be a source information.
- g. Mr. Mike Ksar: If Japanese expert cannot do it, the editor has to do it.
- h. Mr. Michel Suignard: The first time a new CJK ideograph is used in a country national standard that standard should be identified as a source reference.
- Mr. Masahiro Sekiguchi: ISO/IEC 10646 should not include the requested information. The use of CJK in Japanese standard is NOT the source information.
- Mr. Michel Suignard: We have information that it is NOT mapping information. The source information is useful to know given a CJK character is used in C, J or K context. There are several CJK characters that are used in Japan but are not identified as being used in Japan.
- k. Mr. Masahiro Sekiguchi: You said three things. As to the source information we had discussion in Markham. The source information is necessary for some and these are already in Amendment 1. What you have in comment T.10 is beyond what was discussed in Markham.
- Mr. Michel Suignard: Many of the BMP characters used in Japan have been given source references.
- m. Mr. Masahiro Sekiguchi: Given seven source information was satisfying your earlier request. Why did you not identify all these earlier?
- n. Mr. Michel Suignard: We discovered the missing ones beyond the seven after the Markham meeting. The latest edition was published in 2004.
- o. Mr. Mike Ksar: The editor discovered these since Markham.
- p. Mr. Masahiro Sekiquchi: As to the usefulness of mapping information, I agree that mapping information to and from ISO/IEC 10646 is useful.
- Mr. Michel Suignard: Knowing that a CJK character is used in a particular country, as source information would help in marketing in the country.
- Mr. Masahiro Sekiguchi: I think you should reference the national standard instead of ISO/IEC 10646 if they want to get marketing related information. The ISO standard should not be a marketing vehicle.
- s. Mr. Mike Ksar: We want to include such information in ISO/IEC 10646 JIS can also be added as a reference in the standard. Annex M lists JIS X 0213 as a source information.
- t. Mr. Teichi Kawabata: You say you want to know the usage in the country, then you will need also the exact shape as well.
- u. Mr. Michel Suignard: In the next edition, yes one would need both the shape and glyphs. There are several that are not in X208 etc. These will be empty.
- Dr. Umamaheswaran: There still seems to some confusion as to what is the Source Information for CJK in the standard.

Disposition: Accept US comment. Editor will capture appropriate text and source information from available published standard JIS X0213-2004. See relevant resolution M46.6 item f on page 32. Action item: Editor to add text to clarify what is included as the CJK Source information is in the standard.

T.11 - Move the newly proposed Hebrew Qamats Qatan from 05BA HEBREW POINT QAMATS QATAN to 05C7A HEBREW POINT QAMATS QATAN

Similar to Irish comment T.1, T.2 and T.4. Pending decision concerning comment from Israel.

See discussion under agenda item 7.4.2 on page 40.

Disposition: Accepted in principle. See relevant resolution M46.22 item a on page 45. The requested move of HEBREW POINT QAMATS QATAN from 05BA to 05C7 (resolution M46.6 item b).

T.12 - Annex A.1 - add 2 new collections:

CJK UNIFIED IDEOGRAPHS-2005 adding 9FA6-9FBB to the content of collection 380, and CJK COMPATIBILITY IDEOGRAPHS-2005 adding FA70-FAD9 to the content of collection 382.

Disposition: Accepted.

(Note: there was no explicit resolution on this item. Included in the final disposition of comments.)

T.13 - Fix the chart names U+2E1C and U+2E1D to correctly reflect resolution M45.6 to:

2E1C LEFT LOW PARAPHRASE BRACKET

2E1D RIGHT LOW PARAPHRASE BRACKET

These names are correct elsewhere.

Disposition: Accepted. Already mentioned in note page 3 of the Amendment.

T.14 - Include Variation selector -17 to -256 from plane E in the list of combining characters in Annex B. Disposition: Accepted.

(Note: there was no explicit resolution on this item. Included in the final disposition of comments.)

T.15 - Usage of square brackets and angular brackets, and description of sequences in Annex C (UTF-16) and Annex F should be made consistent with formal specification in clause 6.6 on USI-s. Either subclause 6.6 needs to be amended or a new bracketing symbol pairs need to be used for referencing single UID within a character sequence.

Disposition: Accepted.

(Note: there was no explicit resolution on this item. Included in the final disposition of comments.)

T.16 - Reword Note concerning usage of SOFT-HYPHEN in Annex F to better use terminology from the standard.

Disposition: Accepted. See also comment T.3 regarding use of 'CC-data element' where appropriate. (Note: there was no explicit resolution on this item. Included in the final disposition of comments.)

T.17 - Change HERMIONE to HERMIONIAN in name for 1015A to be consistent with 10162 and 10168 in the charts and names list.

Disposition: Accepted. See relevant resolution M46.6 item g on page 32.

- T.18 Update the glyphs in source reference information for 12 'more significant' Extension B ideographs to match input in document IRG 1017 dated 2003.12.24. Some differences are very subtle (230D4, 25ACD and 26165) and may not need to be incorporated. Discussion:
  - a. Dr. Umamaheswaran: which one of these shapes is recommended for adoption?
  - b. Mr. Michel Suignard: IRG 1017 has to be consulted and the glyph recommended by IRG in 1017 has to be selected. IRG should have informed WG2 of the changes.
- Mr. Mike Ksar: Mr. Michel Suignard to work with Dr. Lu Qin and get the information sorted out. Disposition: Accept the comment in principle
- T.19 Status of Annex L Character naming guidelines should be changed to normative rules.

Dr. Ken Whistler: (Similar to comment T.2 above) USA withdraws the comment pending the outcome of Amendment 2 discussion.

See discussion on document N2919 under agenda item 8.3 on page 49.

**Editorial Comments:** 

E.1. E2. E3 and E4

Disposition: All four editorial fixes were accepted.

# 7.1.10 Progression of FPDAM 1

All the ballot comments except Canada's comments on Coptic were resolved and the negative ballots were reversed to acceptance. The editor has prepared the final disposition of comments reflecting the proceedings at this meeting. Canada's disagreement regarding Coptic is noted and included in the final disposition document.

WG2 accepts the final disposition of comments in document N2926 and progress to FDAM1 stage. Relevant resolutions:

# M46.6 (Other changes in Amendment 1):

Unanimous

In response to FPDAM1 ballot responses in document N2881 WG2 resolves to make the following changes:

- a. 19DE NEW TAI LUE SIGN LE is renamed to NEW TAI LUE SIGN LAE
   19DF NEW TAI LUE SIGN LEW is renamed to NEW TAI LUE SIGN LAEV
- b. HEBREW POINT QAMATS QATAN is moved from 05BA to 05C7
- Accept a new format for documenting collections to permit inclusion of additional usage information in the IICORE collection; the principle and procedures document is to be updated to capture this additional format for collections
- d. CJK BASIC STROKES is changed to CJK STROKES in the block name, collection name and character names associated with code positions 31C0 to 31CF; along with: 31C3 CJK BASIC STROKE XG-2 is renamed to CJK STROKE BXG 31C4 CJK BASIC STROKE SZ is renamed to CJK STROKE SW 31C9 CJK BASIC STROKE SZZG is changed to CJK STROKE SZWG
- e. The set of HKSCS-2004 source references is expanded to 123 from the current 42 in line with the Approval HKSCS 2004 (which is in the process of being published) set from HKSAR
- f. Missing source reference information for JIS X 0213-2000 / 2004 will be added to complete the set
- g. 1015A GREEK ACROPHONIC HERMIONE ONE is renamed to GREEK ACROPHONIC HERMIONIAN ONE.

# M46.8 (Disposition of FPDAM1 ballot comments):

**Unanimous** 

With reference to the FPDAM1 ballot comments in document N2879 and their proposed dispositions in document N2881, and based on the discussion at the meeting, WG2 accepts the final disposition of comments in document N2926, which includes the responses to ballot comments having corresponding additional documentation or defect reports, some of which are captured in individual resolutions in this document.

#### M46.9 (Progression of Amendment 1):

Unanimous

WG2 instructs its editor to prepare the FDAM text based on the disposition of comments in document N2926 and other resolutions from this meeting for additional text for inclusion in Amendment 1 to ISO/IEC 10646: 2003, and forward to SC2 secretariat for FDAM processing, with unchanged schedule.

(Note: the total number of characters in FDAM1 remains unchanged from FPDAM1 at 1273.)

#### 7.2 Proposed Disposition of Comments PDAM2

#### Input documents:

2879 Summary of Voting on ISO/IEC JTC 1/SC 2 N 3760: ISO/IEC 10646: 2003/FPDAM 1, Information technology -Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 1: Glagolitic, Coptic, Georgian and other
characters; SC2 Secretariat; 2004-12-27

2880 Proposed disposition of comments - PDAM2; Michel Suignard; 2005-01-10 Output document:

2924R Summary of repertoire for FDAM 1 and FPDAM 2 of ISO/IEC 10646 - output Meeting 46 - updated; Asmus Freytag; 2005-02-08

2927 Disposition of comments PDAM2; Michel Suignard; SC02n3787; 2005-01-27

From document N2876 for ballot on PDAM2, of 31 national bodies, 6 voted YES (USA with comments), 5 (Canada, China, Germany, Ireland and Japan) voted NO with comments, 7 have abstained and 13 have not responded.

Note – A positive vote without comment was also recorded from Iran, but was received too late to be mentioned in document N2879.

Mr. Michel Suignard: Document N2880 is the proposed disposition of the ballot comments. The disposition is organized per country. The full content of the ballot comments (minus some character glyphs) have been included in this document to facilitate the reading. The dispositions are inserted in between these comments along with explanatory text.

### 7.2.1 Canada: Negative

**Technical Comments** 

Comment 1. N'Ko Script

1a - Change the block name for N'Ko to NKo to be consistent with the NKO in character names.

1b - a clause explaining the naming rules for Block Names should be added.

The block name change is also requested by Japan and the US in comment T.1. The US has also requested that block names follow the same guideline as for characters in its comment T2 on FPDAM1 ballot.

Document N2919 addresses the topic of Block Names. See discussion and relevant resolution M46.11 under item 8.3 on page 49.

Discussion:

- a. Mr. Michel Suignard: In Block names sometimes we use all uppercase sometimes Title
- b. Dr. Asmus Freytag: In Collections we use Uppercase, Mixed case etc. Not in block
- c. Dr. Umamaheswaran: I understand that user community wanted a separation between N and K; a hyphen was suggested.
- d. Mr. Michael Everson: User community can live without Hyphen or Apostrophe.
- e. Dr. Asmus Freytag: There is no case distinction in names no matter which form is used.

Disposition: Accepted in principle. No apostrophe between N and K in the name of the block, name of collection and names of characters. Wherever the script is referenced elsewhere in the standard it will be with the apostrophe.

(Note: there was no explicit resolution on this item. Included in the final disposition of comments.)

Comment 2 - Canada seeks removal of 07E8 - OLD JA, 07E9 - OLD CHA and 07EA OLD RA characters from current amendment till more evidence of need for encoding these are provided. Why are these not just historical glyph variants of corresponding new ones?

Comment 3 - Canada seeks more justification for encoding some of the N'Ko combining marks (07EB, 07ED, 07EE ...) separately instead of using corresponding generic combining marks that are already in the standard, and employ font level solution to deal with glyph variations.

Mr. Michael Suignard: These are for WG2 discussion. It would help to know the exact list of problematic combining marks. The values 07EB, 07ED and 07EE are mentioned. In addition, 07F3 is probably implied by the ellipsis in the Canadian comment. There were additional documents on the topic. See agenda item 7.3.4 on page 38.

Disposition: The Canadian comment was NOT accepted. Canadian vote stays Negative.

Text received from Canadian experts and included in the disposition of comments:

Unfortunately, Canada continues to oppose the current encoding of N'Ko, since its concerns outlined in its ballot comments (in documents N2879 and N2911) have not been addressed.

More specifically, Canada remains unconvinced that the old variants forms (the proposed U+07E8, U+07E9, and U+07EA) should be separately encoded, even though a virtual keyboard contains keys for them. Keyboards are no ground to encode characters. Canada suggested the use of variant selectors, if such a keyboard was to be retained. However, Canada wishes N'Ko to be encoded and we have thus suggested ways to improve the current proposal and to bring evidence that would sway our vote. Canada will, for instance, look favourably at the encoding of the old variants if an N'Ko dictionary having main entries (the "keywords") mixing old and new forms could be found. Other proofs - technical requirements - of the need of a plain text distinction between the old and new forms would obviously also be satisfactory.

#### 7.2.2 China: Negative

Technical comments:

Comment on Phags-pa script: While document N2829 from the WG2 meeting M45 ad hoc on Phags-Pa addressed many of our comments, several questions raised in document N2829 need further discussion.

Technical details:

- 1. Add two vowel letters OE and UE and four consonant letters expressing initial consonants of four Chinese language ideographs
- 2. Add a series of variants of letters
- 3. Add a syllable delimiter, a joiner and its variant

- 4. Use Khubilai Khan font
- 5. Need to use three variant selectors
- 6. Specify inputting rules for single variant presentation forms

For further details, read China-Mongolia joint proposal WG2Nxxxx please.

# Mr. Michel Suignard:

The document WG2Nxxxx is assumed to be WG2 N2870 (Summary of the Revised User's Agreement related to Phags-pa Script), although China has submitted two other documents in the meantime:

- N2869: Proposal to encode the Phags-pa script
- N2871: Some problems on the Encoding of Phags-pa Script.

All these documents do not comment on the original proposal as documented in PDAM2 but instead are describing a new proposal, which is similar but has many differences in names and character contents with the previous version. These differences are not documented by the new documents. Furthermore the document N2829, which was the result of the ad-hoc committee at the last WG2 meeting is apparently not the base for further process and is not considered or answered by the new documents. For example, it was agreed that A86F should be called PHAGS-PA LETTER CANDRABINDU. In document N2869, it is called simply CANDARABINDU and located at 2874. An ad hoc will be needed to resolve the new documents with document N3869 and the PDAM2 text.

An ad hoc group met on Phags-Pa and have arrived at a consensus. See discussion under agenda item 7.3.3 on page 37 and relevant resolution M46.16 on page 38.

Disposition: Pending no disagreement from the Chinese Phags-Pa experts (later confirmed), China reverses its ballot to YES.

# 7.2.3 Germany: Negative

**Technical Comments:** 

Remove the Phoenician block; refers to document N2907. The rationale given is that Phoenician, Old Hebrew, Old Aramaic, Moabite and Ammonite use the same script, and therefore a new Phoenician block should not be encoded, based on expertise obtained from the University of Tubingen.

Mr. Michel Suignard: It should be noted that WG2 N2097 is vastly anterior to the recent discussion concerning the Phoenician script and by no means can be categorized as supporting the position expressed by Germany. "It can be sensible to generate, for a limited field of application, **standardized** character forms that can be used in print. This is the case, e.g. for the Ugaritic cuneiform, the Old Persian cuneiform, for **Phoenician** and for the Old South Arabian alphabet."

The point presented by Germany has been abundantly discussed in previous documents. WG2 already addressed these issues and approved publication of PDAM2. There is no reason to go over this again.

There is additional Canadian expert contribution on the subject in document N2909. The ad hoc will look at the document, even though it was not addressed in Canadian ballot comment in document N2907. See discussion under agenda item 7.3.5 on page 39.

Disposition: Not accepted. German experts could not be contacted by the ad hoc on Phoenician. Germany's vote stays NO.

# 7.2.4 Ireland: Negative

Technical comments

T.1 - Add U+05BA HEBREW POINT HOLAM HASER FOR VAV, which would entail moving HEBREW POINT QAMATS QATAN (under ballot in FPDAM-1) to position U+05C7 (see documents N2840 and N2844)

Also requested by US comment T3.

Agenda item 7.4.2 on page 40 discusses the documents N2840 and N2844.

Disposition: Accepted in principle. See relevant resolution M46.22 item a on page 45.

- *T.2* Add six new characters for Kannada script for transcribing Sanskrit proposed in document N2860 See item 7.4.6 on page 43 for a discussion on the proposal. Ireland withdraws its request for the two DANDA characters; Related to similar request in FPDAM1 Irish comment T5 concerning Bengali Danda. Disposition: Accept four characters (excluding the DANDA-s). 0CE2 and 0CE3 are to be added to the combining marks list. See the relevant resolution M46.15 on page 43.
- *T.3* Add U+2427 INVISIBLE LETTER (that was proposed in document N2822 and discussed at M45) Ireland withdraws this comment.
- T.4 regarding 0238 LATIN SMALL LETTER TH WITH STRIKETHROUGH Ireland withdraws T.4. Cut and paste error from earlier ballot comment.

Editorial comments

*E.1* - Change "Phags-Pa" to "Phags-pa" in the title of the Amendment.

Disposition: Accepted.

E.2, E4, E5, E7 and E8 - Should Row numbers in plane 1 be xx or 1xx?

Mr. Michel Suignard: By definition a Row is defined within a plane and cannot exceed 255 (decimal) and is always expressed in hexadecimal notation (00-FF). Row 09: Phoenician is the Row 9 within Plane 01 (SMP) and can never be expressed as Row 109. The notation has been used in this form for all documents addressing ISO/IEC 10646 supplementary planes.

Disposition: Accepted in principle.

E.3 - Reduce the size of glyphs at U+12031 and U+12050 in Cuneiform charts to fit into their boxes. Also, should Row 20 be Row 120?

Disposition: Accepted in principle. See under E.2 above for Row value.

*E.6* - Reduce the size of glyph at U+1221D should be reduced to fit into its box. Also should Row 22 be Row 122?

Disposition: Accepted in principle. See under E.2 above for Row value.

E.9 - Reduce the size of glyphs at U+12407, U+1241D, U+12427, U+12428, U+12429, U+1242A, U+1242B, U+1242E, and U+12431 in Cuneiform charts to fit into their boxes. Also, should Row 24 be Row 124?

Disposition: Accepted in principle. See under E.2 above for Row value.

Ireland reversed its vote from No to Yes.

# 7.2.5 Japan, Negative

**Technical Comment** 

Change N'Ko to NKO in Collection and block names in Annex A.1. Apostrophe is new to UCS collection/block names, and breaks some existing practices; for example, XML Schema's syntax for use of block name with "block-escape", in dealing with these names.

Disposition: Accepted. See disposition of Canadian comment 1a) and 1b); also discussion and relevant resolution M46.11 under item 8.3 on page 49.

Japan reverses its vote from No to Yes.

# 7.2.6 USA: Yes with comments

Technical comments:

T.1 - Rename N'KO script name to NKO (remove apostrophe).

Disposition: Accepted. See disposition of Canadian comment 1a) and 1b); also discussion and relevant resolution M46.11 under item 8.3 on page 49.

*T.2* - Seventeen Planes restriction -- specific text is proposed to improve to improve the synchronization between the Unicode Standard and ISO/IEC 10646 and to make UTF-16 and UCS-4 equivalent in repertoire representation.

The US withdraws this as ballot comment—since it was not directly related to Amendment 2 text. (See separate document N2920 under new agenda item 0 on page 50.)

T.3 - Add 05BA HEBREW POINT HOLAM HASER FOR VAV proposed in document N2840 (related to US comment T.11 on FPDAM1, on moving of 05BA Qamats Qatan to 05C7). Also requested by Irish comment T1.

Agenda item 7.4.2 on page 40 discusses the documents N2840 and N2844. Disposition: Accepted in principle. See relevant resolution M46.22 on page 45.

*T.4a* - Add 5 Mathematical bracket characters in Miscellaneous Technical block (see document N2842) See discussion and relevant resolution M46.16 under item 7.4.3 on page 40. Disposition: Accepted.

*T.4b* - Add 26 Mathematical characters per proposal in document N2874. See discussion and relevant resolution M46.18 under item 7.4.8 on page 44. Disposition: Accepted.

*T.5* - Add new letter-like symbols AKTIESELSKAB at 214D (see documents N2887 and N2889) See discussion and relevant resolution M46.22 item b under item 7.4.11 on page 45. Disposition: Accepted.

*T.6a* - Add 14 Latin characters to Latin Extended B block (see proposal in document N2906) See discussion and relevant resolution M46.19a under item 7.4.14 on page 46. Disposition: Accepted.

*T.6b* - Add 5 Latin characters in a new Latin Extended-C block (see proposal in document N2847) See discussion and relevant resolution M46.20 under item 7.4.4 on page 41. Disposition: Accepted.

*T.7*- Add seven characters in Combining Diacritical Marks Supplement (as proposed in document N2906) See discussion and relevant resolution M46.19b under item 7.4.14 on page 46. Disposition: Accepted.

*T.8* - Add eighteen Counting Rod Numerals in a new block (from proposal in document N2816) See discussion and relevant resolution M46.17 under item 7.5.2 on page 48. Disposition: Accepted.

T.9 - Add four Modifier Tone Letters (see proposal document N2883)

See discussion and relevant resolution M46.21 under item 0 on page 45. Disposition: Accepted.

*T.10* - Reaffirms support for current encoding of Phags-Pa and would not welcome significant changes without consensus of all of interested parties.

Disposition: Noted. See discussion and relevant resolution M46.14 under item 7.3.3 on page 37.

#### **Editorial Comments:**

*E.1* - Remove the redundant tables R.1 to R.4 in Annex R, Names of Hangul syllables This request needs discussion with the experts from Korea.

Disposition: Based on an informal ad hoc between the editor and Korean experts and others the following was accepted. The Annex R table will be in a linked PDF file removing it from the main document. This will address the editor's concern and retain the readable tables but in a separate .PDF file.

#### **Progression of PDAM2** 7.2.7

Negative ballots from Canada and Germany could not be reversed. All other negative ballots reversed to acceptance. Document N2927 contains the final disposition of comments. Final charts are in document N2924. The Amendment progresses to FPDAM stage.

Relevant resolutions:

M46.24 (Disposition of PDAM2 ballot comments):

Abstention: Canada Approval: China, Ireland, Japan, Korea (Republic of), Mongolia, Poland and the USA

With reference to the PDAM2 ballot comments in document N2876 and their proposed dispositions in document N2880, and based on the discussion at the meeting, WG2 accepts the final disposition of comments in document N2927, which includes the responses to ballot comments having corresponding proposals for new scripts or characters, several of which are captured in individual resolutions in this document.

M46.25 (Progression of Amendment 2):

Abstention: Canada Approval: China, Ireland, Japan, Korea (Republic of), Mongolia, Poland and the USA

WG2 instructs its editor to prepare the FPDAM2 text based on the disposition of comments in document N2927 and the various resolutions from this meeting for additional text, characters or scripts for inclusion in Amendment 2 to ISO/IEC 10646: 2003, and forward to SC2 secretariat for FPDAM processing, with unchanged schedule. (Note: 210 new characters are added, none removed, raising the total from 1125 to 1335 characters in Amendment 2.)

## Additional feedback on FPDAM1 and PDAM2

#### Modifications to Tifinagh names 7.3.1

Input document:

2862 Modifications to Tifinagh names; Patrick Andries; 2004-11-29

The topic was discussed under Canada FPDAM1 ballot disposition of comment 1 - see page 16.

## Mention Tifinagh characters in Annex E

Input document:

Mention Tifinagh characters in Annex E (Mirror Characters in Bidi) of ISO/IEC 10646:2003; Patrick Andries; 2863 2004-11-30

The topic was discussed under Canada FPDAM1 ballot disposition of comment 3 - see page 17; also see related agenda item 11.1 on page 54.

Disposition: Accepted.

#### 7.3.3 Phags-pa script

Input documents:

2869 Proposal to Encode the Phags-pa Script; China and Mongolia; 2004-11-17

2869c Cover email - Updated proposal to encode the Phags-pa Script; G.Battsengel, MASM (Mongolian Agency for Standardization and Metrology); 2004-11-17

2870 Summary of the Revised User's Agreement Related to Phags-pa Script; China National Information

Technology Standardization Technical Committee. Mongolian Agency for Standardization & Metrology; 2004-

Some Problems on the Encoding of Phags-pa Script; China National Information Technology Standardization 2871

Technical Committee. Mongolian Agency for Standardization & Metrology; 2004-11-17

Open issues on Phags-pa; Peter Constable; 2004-01-22 2912

Output document:

Phags-pa ad hoc report; Phags-pa ad hoc; 2005-01-25 2922

2924R Summary of repertoire for FDAM 1 and FPDAM 2 of ISO/IEC 10646 - output Meeting 46 - updated; Asmus

An ad hoc group was delegated to consider the above input documents and the ballot comments on FPDAM 1 and report back to WG2. Mr. Peter Constable reported on behalf of the ad hoc. Messrs. Choijinzhab (China), Chen Zhuang (China), Hexigeduren (China), Fang Jun (China), Yang Yucheng (China), Lu Qin (China), Masahiro Sekiguchi (Japan), Domiin. Tumurtogoo (Mongolia), Andrew West (Guest - UK), Asmus Freytag (Unicode Consortium), Peter Constable (USA), and Ken Whistler (USA) participated in the ad hoc discussions.

Mr. Peter Constable: Document N2922 contains the ad-hoc output. There is a minor change to the ordering of the script in second page. Document N2912 has a set of issues summarized. There are three kinds of changes to the Amendment.

1 name change; 4 characters to be added; variation sequences to be enumerated; no character removal from PDAM2.

It has recommendation on how to dispose China's ballot comments.

A number of other recommendations are also given in the document.

Document N2924 will contain the charts reflecting the recommendations of Phags-Pa script.

Dr. Asmus Freytag: I will prepare the summary of repertoires similar to what we did in Markham, Ontario. Mr. Mike Ksar: I would like to thank the ad hoc group and all the attendees for the consensus recommendations.

Disposition: Accept the Ad Hoc Report.

Relevant resolution:

#### M46.14 (Phags-pa - changes):

Unanimous

With reference to changes requested to Phags-pa encoding in PDAM 2 ballot comments from China in document N2876, and the details given in documents N2869, N2870, N2871 and N2912, WG2 accepts the ad hoc group recommendations in document N2922. The following are the main changes:

a. The following four new characters are added:

PHAGS-PA LETTER ALTERNATE YA
PHAGS-PA LETTER VOICELESS SHA
PHAGS-PA LETTER VOICED HA
PHAGS-PA LETTER ASPIRATED FA,
extending the range of assigned code positions to A877.

- b. U+A85A PHAGS-PA LETTER -A is renamed to PHAGS-PA LETTER SMALL A
- c. The entire range A840 to A877 including the above additions is re-ordered based on ordering in document N2870; the new order, glyphs and names are shown in the consolidated charts in document N2924.
- d. Add the following six variation-selector-sequences:

<A856, FE00> Phags-pa letter reversed shaping small a
<A85C, FE00> Phags-pa letter reversed shaping ha
<A85E, FE00> Phags-pa letter reversed shaping i
<A85F, FE00> Phags-pa letter reversed shaping u
<A860, FE00> Phags-pa letter reversed shaping e
<A868, FE00> Phags-pa letter reversed shaping subjoined ya

(Note: these variation-selector sequences do not select absolute glyph forms; rather, they select a form that is reversed from the normal form predicted by the preceding letter.)

## 7.3.4 N'Ko script

#### Input documents:

2879 Summary of Voting on ISO/IEC JTC 1/SC 2 N 3760: ISO/IEC 10646: 2003/FPDAM 1, Information technology -Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 1: Glagolitic, Coptic, Georgian and other
characters; SC2 Secretariat; 2004-12-27

Feedback on N'Ko - Amendment 2; Mamady Doumbouya; 2005-01-18
N'Ko Proposal in Amendment 2; Mamady Doumbouya, President, N'Ko Institute; 2005-01-11

N'Ko Proposal in Amendment 2 - Clarification of Canadian comments; François Yergeau, Patrick Andries;

2005-01-20
2914 Amendment 2: Documents showing old and new N'Ko letters: Mamady Doumbouya: 2005-01-21

The topic was delegated to an ad hoc on N'Ko script. Messrs. Michael Everson, Alain LaBonté, Ken Whistler, and Asmus Freytag (in Xiamen) and Messrs. Patrick Andries and François Yergeau (from Canada using live chat) participated in the ad hoc discussions. The ad hoc group reported that a consensus could not be arrived at and the Canadian position cannot be reconciled.

Canadian experts have requested the reason for their continued disagreement after the ad hoc meeting be included in the disposition of comments. The following text was received by the editor and was included in the final disposition of Canadian comments.

"Unfortunately, Canada continues to oppose the current encoding of N'Ko, since its concerns outlined in its ballot comments (cf. <a href="http://std.dkuug.dk/jtc1/sc2/def/02n3771.pdf">http://std.dkuug.dk/jtc1/sc2/wg2/docs/n2911.pdf</a> have not been addressed. More specifically, Canada remains unconvinced that the old variants forms (the proposed U+07E8, U+07E9, and U+07EA) should be separately encoded, even though a virtual keyboard contains keys for them. Keyboards are no ground to encode characters. Canada suggested the use of variant selectors, if such a keyboard was to be retained. However, Canada wishes N'Ko to be encoded and we have thus suggested ways to improve the current proposal and to bring evidence that would sway our vote. Canada will, for instance, look favourably at the encoding of the old variants if an N'Ko dictionary having main entries (the "keywords") mixing old and new forms could be found. Other proofs – technical requirements – of the need of a plain text distinction between the old and new forms would obviously also be satisfactory."

"It has also been asserted that generic diacritics could not be used for any N'Ko diacritics because of the excessive departure in shape from the usual shapes of the generic characters. We accept that this could be a reason not to use the generic marks, which are, however, the first choice. We have yet seen no evidence of excessive departure for U+07EB, U+07ED, U+07EE, U+07F2 and U+07F3 (for which U+0304, U+0307, U+0302, U+0323 and U+0308 respectively should be used); in fact all alphabets we have seen use very similar shapes to the corresponding generic signs that we suggest be used. The issue could be solved if either the five diacritics mentioned above were removed from the proposal or if a list of variant shapes showing sufficient departure (with non-negligible frequency) from the generic diacritics were provided. Canada will evidently reconsider its opposition for diacritics whose shape vary obviously too much and too often from the corresponding generic shape."

## 7.3.5 Phoenician script

Input documents:

2907 Input from Canadian Experts on the Phoenician proposal; John Hudson & Karljürgen Feuerherm; 2005-01-18
2909 Amendment 2 - Phoenician Script; Debbie Anderson; 2005-01-19

An ad hoc group met and discussed the German PDAM2 comment and comments in the above documents. Based on ad hoc discussion with several present here and outside, the feeling was that we should not change anything at this time. We should talk to other experts who have given us feedback and with the Canadian experts and continue the discussion.

#### Discussion:

- a. Mr. Mike Ksar: I would like to see a proactive approach to get the two communities together. If we need to make any changes to make that happen we should look into them. A positive aspect should be taken in our approach. There are two user communities with two different needs.
- b. Mr. Michael Everson: I wish we could get a positive spin. There has been no recommendation to change the repertoire, the order or the character names at this time.
   I will continue to work with the experts.
- c. Dr. Asmus Freytag: There has been no suggestion to change anything in the proposal as it stands. We know there are two different user communities.
- d. Mr. Peter Constable: At this juncture, the issue is not whether the script is to be added, what the repertoire is etc. It is on what it should be named. The issue is to find the right name.
- e. Dr. Asmus Freytag: While we agree that the name needs to be taken a look at, we should do that with due diligence. We should not change it at this time.

Disposition: The proposal is in the FPDAM 2; we will not change anything at this time.

# 7.3.6 Annex P text regarding HKSCS characters in Amendment 1 Input document:

2925 Proposed text for Annex P; KAWABATA, Taichi & Lu Qin (expert contribution); 2005-01-26

Mr. Taichi Kawabata: U+9FB9, U+9FBA and U+9FBB are three ideographs that were included in Amendment 1. Though these are unifiable with U+20509, U+2099D and U+0470C, these are encoded due to the specific positioning of these glyphs. The proposal is add a paragraph to Annex P to point these out being different. Document N2925 includes the proposed text.

Mr. Michel Suignard: There may be several other similar characters in the standard. But for now we can add some text similar to what we have done for other ideographs. We will base the text on what is proposed in document N2925.

Disposition: Accepted in principle. Include text in Annex P based on text proposed in document N2925. Relevant resolution:

## M46.7 (Annex P text for HKSCS characters):

**Unanimous** 

WG2 accepts in principle the proposed clarification text regarding HKSCS CJK Ideographs 9FB9, 9FBA and 9FBB in document N2925, and instructs its editor to prepare and include appropriate text in Annex P. WG2 further accepts to include this text in Amendment 1 to ISO/IEC 10646: 2003.

## 7.4 Additional Repertoire proposals

## 7.4.1 Proposal to add Palestinian and Babylonian Pointing characters

Input documents:

Proposal to add Palestinian Pointing to ISO/IEC 10646; Elaine Keown; 2004-07-20 Proposal to add Babylonian Pointing to ISO/IEC 10646; Elaine Keown; 2004-07-17

Both these documents should be considered together. There are some symbols in Hebrew block to indicate how to pronounce. There are different schools for doing the task and what we have are symbols in support of one of these schools. The proposals are to satisfy the other two schools. These proposals are not mature yet. Israel national body should be requested to review and comment on these proposals. Dr. Ken Whistler: The SII had requested not to touch the Hebrew block. They should take a look at these. **Action item:** SII should be requested to review and feedback.

## 7.4.2 Hebrew Point HOLAM HASER FOR VAV

Input documents:

2840 Proposal to add HEBREW POINT HOLAM HASER FOR VAV to the BMP of the UCS; Michael Everson & Mark Shoulson; 2004-07-29

2844 Disunification costs regarding HOLAM and VAV in Hebrew; Michael Everson & Mark Shoulson; 2004-08-18

Mr. Michael Everson: This is another character for Hebrew orthography, where it is distinguished from Holam at 05B9. Similar to the note for Qamats Qatan, we have to add an informative note. Document N2844 contains supplementary information in support of document N2840. This character is requested by Ireland comment T.4 on FPDAM1 and US comment T.3 on PDAM2.

Disposition: Accepted with the following changes from document N2840:

05BA is the new location - different from N2840.

An Annex P entry is to be made, similar to Qamats Qatan (if it exists).

Glyph is similar to 05B9 but with the dot moved a little to the left.

Add to list of combining marks.

See relevant resolution M46.22 on page 45.

## 7.4.3 Mathematical Horizontal Bracket Characters

Input document:

2842 Mathematical Horizontal Bracket Characters; Murray Sargent III; 2004-08-11

Dr. Asmus Freytag: Bracketing horizontally over an equation, for example, is done in printing Maths. The decorative brackets needed for these are requested. UTC and L2 have reviewed these. It is also part of US ballot comment T.2 on PDAM2.

## Discussion:

- a. Mr. Mike Ksar: Are there only five or six?
- b. Dr. Asmus Freytag: Mr. Murray Sargent has not seen any evidence of use of the Bottom Tortoise bracket. It may be requested in the future. If we feel strongly about not leaving a hole we can add the symmetrical character as well.
- c. Mr. Mike Ksar: If the character comes in the future it can be added.
- d. Mr. Masahiro Sekiguchi: I would like to see some explanation about these characters because of some similar characters in vertical writing. This will assist Ideographic character users from not getting confused.
- e. Dr. Asmus Freytag: We have decided in the past to put such information in the Unicode standard. We certainly can put a cross reference to the CJK ones to warn that these are not identical. We will also put a brief summary of the purpose of use of these characters.
- f. Mr. Masahiro Sekiguchi: I would like to see suitable brief text in Annex P in Amendment 2. If someone wants more detail the user can be directed to see Unicode.
- g. Mr. Michel Suignard: There are several Math symbols, which also look like some of the CJK characters. If we want to document such information in Annex P then there are too many potential candidates.
- h. Mr. Masahiro Sekiguchi: I could draft some text for including in Annex P.
- . Mr. Michel Suignard: We could use annotation like "for mathematical use" to assist.

Disposition: Accepted the five characters with modified code positions to take into account characters proposed in the FPDAM 1:

23DC TOP PARENTHESIS, 23DD BOTTOM PARENTHESIS, 23DE TOP CURLY BRACKET, 23DF BOTTOM CURLY BRACKET, and 23E0 TOP TORTOISE SHELL BRACKET

Glyphs are as shown on page 3 of N2842. Annotations were agreed upon between editor and Japanese expert.

Relevant resolution:

## M46.16 (Mathematical horizontal brackets):

Unanimous

WG2 resolves to add the following five Miscellaneous Technical Symbols to Amendment 2 to ISO/IEC 10646: 2003, with their glyphs from document N2842:

23DC TOP PARENTHESIS (for mathematical formulas)

23DD BOTTOM PARENTHESIS (for mathematical formulas)

23DE TOP CURLY BRACKET (for mathematical formulas)

23DF BOTTOM CURLY BRACKET (for mathematical formulas)

23E0 TOP TORTOISE SHELL BRACKET (for mathematical formulas)

## 7.4.4 Additional Latin Phonetic & Orthographic characters

Input document:

2847R Revised Proposal for Additional Latin Phonetic and Orthographic Characters; Lorna A. Priest (SIL); L2/04-246R; 2004-12-09

Mr. Peter Constable: Five base characters used in literacy and liturgical material, are proposed in document N2847, which is a revised version of an earlier contribution on the subject. Some of them have lower cases already in the standard; glyphs are on page 3 of the document. Proposed code positions are 2C60-2C6F for the block. Populated with five characters.

Disposition: Accept with modified names.

Relevant resolution:

## M46.20 (More Latin phonetic and orthographic characters):

**Unanimous** 

WG2 resolves to create a new Latin Extended-C block and corresponding collection at the range 2C60-2C7F and populate it with the following five characters as proposed in document N2847, in Amendment 2 to ISO/IEC 10646: 2003:

2C60 LATIN CAPITAL LETTER L WITH DOUBLE BAR 2C61 LATIN SMALL LETTER L WITH DOUBLE BAR 2C62 LATIN CAPITAL LETTER L WITH MIDDLE TILDE 2C63 LATIN CAPITAL LETTER P WITH STROKE 2C64 LATIN CAPITAL LETTER R WITH TAIL

## 7.4.5 Balinese script

Input documents:

2856 Preliminary proposal for encoding the Balinese script; Michael Everson; 2004-10-04

2908 Proposal for encoding the Balinese script in the UCS - replaces N2856; Michael Everson & I Made Suatjana;

2005-01-23

2916 Balinese government support for encoding the Balinese script; Michael Everson; 2005-01-19

Mr. Michael Everson: Document N2856 was sent to WG2 in October reporting on the status of work on that script. At the beginning of this month – there was further work done under a UNESCO Project. They organized a seminar. We had a public press conference on the first day on the subject, discussing on the nature of the ISO/IEC 10646 and Unicode etc. The script and Bali musical notation were worked on. Over several days after the workshop work was done on encoding aspects of Bali, doing some research in libraries etc.

Information on problem characters for rendering has been outlined. Ordering of characters can be Sanskrit ordering or more recently the indigenous ones. Unicode properties are proposed in the document. There are still some characters, which are considered to be 'holy' characters that are not included at this time.

Document N2916 is from Ministry of Culture, Provincial Govt of Bali – who organized the meeting on Balinese and who were involved in the preparation of this document. They would like to see the proposal be sent for ballot.

There are 121 characters proposed in document N2908 expanding on document N2856. Discussion:

- Mr. Mike Ksar: This document is the first submittal to WG2. It can be sent out for national body. feedback. We can send out the document for ballot only in the next Amendment.
- b. Dr. Ken Whistler: This document is well done and detailed one.
- c. Dr. Asmus Freytag: When realistically can we expect to be balloting on the next Amendment to the standard?
- Mr. Michel Suignard: We have done other scripts for example, Tifinagh in Amendment 1. Have had precedence. We need to have some confidence in the proposal to be able to take the position to include in Amendment.2.
- e. Dr. Asmus Freytag: Mr. Michel Suignard has the right way of looking at it. We do have to take into consideration in general our responsiveness to our user community. In this case the proposal has been endorsed at the highest levels. If we go the direction of Mr. Michel Suignard's suggestion ... like Ethiopic extended etc. we could put it into current Amendment 2 and will still get a chance to move it to next Amendment.
- Mr. Mike Ksar: This was NOT proposed to be included in Amendment 2.
- g. Dr. Umamaheswaran: I suggest that we do include this proposal in Amendment 2. It will give us the benefit of asking national bodies to take a hard look at it during ballot review and if there is some problem with the proposal we can get the script pulled in September out of this Amendment.
- h. Mr. Masahiro Sekiguchi: How urgent is it for inclusion in the standard?
- Mr. Michael Everson: It is urgent enough for the sponsors UNESCO and for the ministry. They have 8-bit fonts today to print the document.
- Mr. Mike Ksar: What are they doing today? They have a solution. I would like to hear from other national bodies.
- k. Mr. Masahiro Sekiguchi: Is this code compatible with their 8-bit font code? My question is aimed at evaluating the stability of this proposal. Is it a good enough for the users of Balinese or not?
- Mr. Michael Everson: The 8-bit code is a subset of this proposal ... there are differences. The current font is visually based set. This proposal is based on the Devanagari Virama model and allows them to go beyond what the current 8-bit font allows them to do. The Devanagari model is stable.
- m. Mr. Masahiro Sekiguchi: Application of the Devanagari model to Balinese may or may not be appropriate, even if the model itself is stable. This is my personal opinion that I will need more time to evaluate this proposal.
- n. Mr. Chen Zhuang: If we do put into Amendment 2 how much time do we have? It is a 4-month ballot. I think we do have sufficient time to review this. I don't object to including it in FPDAM 2.
- o. Dr. Kvaw Thein: Mvanmar has no objection.
- p. Ms. Elżbieta Broma-Wrzesień: Poland has no objection.
- Dr. Asmus Freytag: I am in a similar situation as others seeing the document for the first time. Is the right kind of people involved in Bali and are we getting the right kind of endorsements -similar to what we had for the Tifinagh case? I am comfortable with the level of detail and the support this proposal has. Taking into account the generic relation it has with Devanagari I am confident that there is high enough chance it will be OK. We should proceed even though I have not consulted with my membership.
- Mr. Peter Constable: Having studied with several Indic scripts, and having worked with the model, even though I have not seen this proposal earlier, it has similarities to the scripts of southern India.
- s. Dr. Ken Whistler: Based on document N2856 I had instructions from US to oppose the inclusion of this script in FPDAM2. Having seen the refined proposal in document N2908, and after having reviewed this document I am confident that it is mature enough that we can support the Canadian suggestion to include it in the FPDAM2.
- Mr. Hideki Hiura: I have attended the seminar. One of the delegates told me that there are some political issues associated with the script. My concern is that we should be comfortable with that aspect. We should be careful that situation like what happened with Khmer does not happen --like a government body gets formed after the proposal gets done.

- u. Mr. Michel Suignard: We have eight months if we do not want to rush this into PDAM2. There can be some more time given to national bodies.
- v. Mr. Mike Ksar: We are taking a risk if we are including in Amendment 2, but with some advantages. One of the disadvantages is that we cannot add any characters to the FPDAM 2 text. It is not stated in document N2908 that it is for Amendment 2.
- w. Mr. Michael Everson: I requested that a new Amendment be started to prevent delaying processing this script.
- x. Dr. Umamaheswaran: The risk exists only if there are technical problems with the document.
- y. Mr. Mike Ksar: In order to defuse situation such as what happened with Khmer, I would like to see if Indonesian representative to be present at the next meeting. I want the WG2 to be aware that there is a political risk involved. Indonesia is an O member of SC2 as well as JTC1.

Disposition: The consensus is to include Balinese in current Amendment 2.

**Action item**: Request Mr. Michael Everson to get some additional backing from Indonesian standards body.

Relevant resolution:

## M46.23 (Balinese script):

**Unanimous** 

WG2 resolves to encode the Balinese script proposed in document N2908 in a new block 1B00 – 1B7F named 'Balinese', and populate it with 121 characters (some of which are combining) with names, glyphs and code position assignments as shown on pages 10 and 11 in document N2908. Further WG2 accepts to include it in Amendment 2 to ISO/IEC 10646: 2003.

## 7.4.6 Proposal to add six characters for Kannada

Input document list:

2860 Proposal to add six characters for Kannada to the BMP of the UCS; Michael Everson; 2004-10-22

Mr. Michael Everson: In reviewing characters used in Kannada poetry for Sanskrit, it was found that the long and short vocalic signs are not included in Kannada encoding. The other two signs are to be found in Kannada dictionary. These are rarely used; but attested to be used.

Ireland withdraws its request for the two Danda characters. Related to similar request in FPDAM1 Irish comment T5 concerning Bengali Danda.

## Discussion:

Dr. Ken Whistler: We have reviewed this proposal and the US is agreeable to include the four characters. Dr. Umamaheswaran: the indic@unicode.org list has had a chance to review the document, and there is consensus on that list for the proposal. The Danda-s need review pending disunification decision from Devanagari Danda.

Disposition: Accept the four characters (less the Danda-s). Glyphs as shown on page 1 of document N2860. 0CE2 and 0CE3 are to be added to the combining marks list. Relevant resolution:

M46.15 (Additional Kannada characters):

Unanimous

WG2 resolves to add the following four Kannada characters to the Kannada block to Amendment 2 to ISO/IEC 10646: 2003, with their glyphs from document N2860:

0CE2 KANNADA VOWEL SIGN VOCALIC L

0CE3 KANNADA VOWEL SIGN VOCALIC LL

0CF1 KANNADA SIGN JIHVAMULIYA

0CF2 KANNADA SIGN UPADHMANIYA

## 7.4.7 Proposal to add a block of CJK Basic Strokes

Input document:

2864

Proposal to add a block of CJK Basic Strokes to the UCS; Thomas Bishop and Richard Cook – individual contribution; 2004-10-25

Mr. Michel Suignard: We have done a number of changes to the CJK strokes in the standard. We could request the national bodies especially in IRG to take a look at this document. We did make some changes in the Amendment based on ballot comments. See comments during discussion of Ireland comment T.7 on page 23.

Dr. Lu Qin: The national bodies have been requested for input on Strokes.

Disposition: Carry forward to next meeting. Await input from IRG.

**Action item**: Request national bodies as well as IRG to review the document in light of changes in the standard.

## 7.4.8 Twenty six Mathematical characters

Input document:

2874 26 Mathematical characters; Asmus Freytag; 2004-12-03

Dr. Asmus Freytag: Document N2874 proposes 26 mathematical character additions. It is based on several purposes:

Purpose 1 – to complete the entity set for mapping between Public Entity sets for math ML and ISO/IEC 10646.

Purpose 2 -- set of symbols collected over many years collected by a consortium of scientific societies - STIX. We have added several of STIX's list of characters into part 2. What we have in the second set is based on what is missing from the original list. Mathematical and scientific experts have reviewed these, and the subset that survived that review is included in this proposal. Most of these geometrical symbols etc are related to existing symbols in the standard, and are mostly for completion of the set of symbols. The Benzene symbol should be noted -- more elaboration is given on it. The two graphical symbols available for benzene are NOT interchangeable from what they represent. Often scientists mention both symbols and go on to explain which one they use in the rest of their document. The ISO SGML entity set also has this symbol.

#### Discussion:

- a. Mr. Michel Suignard: No BiDi mirroring. There are four combining characters.
- b. Dr. Asmus Freytag: The arrows do not participate in Bidi mirroring.
- c. Mr. Mike Ksar: These are for inclusion in Amendment 2.

Disposition: Accepted for encoding. Document N2874 has the glyphs, character names and code positions.

Relevant resolution:

## M46.18 (26 additional Mathematical characters):

**Unanimous** 

WG2 resolves to add the following twenty-six mathematical characters with their glyphs from document N2874, with assignments in different blocks, in Amendment 2 to ISO/IEC 10646: 2003:

4 in Combining Diacritical Marks for Symbols:

20EC COMBINING RIGHTWARDS HARPOON WITH BARB DOWNWARDS

20ED COMBINING LEFTWARDS HARPOON WITH BARB DOWNWARDS

20EE COMBINING LEFT ARROW BELOW

20EF COMBINING RIGHT ARROW BELOW

(these are combining characters)

6 in Miscellaneous Technical:

23E1 ELECTRICAL INTERSECTION

23E2 WHITE TRAPEZIUM

23E3 BENZENE RING WITH CIRCLE

23E4 STRAIGHTNESS

23E5 FLATNESS

23E6 AC CURRENT

1 in Miscellaneous Symbols:

26B2 NEUTER

3 in Miscellaneous Mathematical Symbols-A

27C7 OR WITH DOT INSIDE

27C8 REVERSE SOLIDUS PRECEDING SUBSET

27C9 SUPERSET PRECEDING SOLIDUS

10 in Miscellaneous Symbols and Arrows:

2B14 SQUARE WITH UPPER RIGHT DIAGONAL HALF BLACK

2B15 SQUARE WITH LOWER LEFT DIAGONAL HALF BLACK

2B16 DIAMOND WITH LEFT HALF BLACK

2B17 DIAMOND WITH RIGHT HALF BLACK

2B18 DIAMOND WITH TOP HALF BLACK

2B19 DIAMOND WITH BOTTOM HALF BLACK

2B20 WHITE PENTAGON

2B21 WHITE HEXAGON 2B22 BLACK HEXAGON 2B23 HORIZONTAL BLACK HEXAGON and

2 in Mathematical Alphanumeric Symbols:

1D7CA MATHEMATICAL BOLD CAPITAL DIGAMMA 1D7CB MATHEMATICAL BOLD SMALL DIGAMMA

## 7.4.9 Saurashtra -properties

Input document:

2875 Saurashtra Linebreaking and Other Properties; Rick McGowan on behalf of UTC-; 2004-11-22

This document is FYI. It does not affect the ISO/IEC 10646 contents.

## 7.4.10 Revised Proposal to encode Chinantec tone marks

Input document:

2883 Revised Proposal to Encode Chinantec Tone Marks; L2/04-349R; UTC - Lorna A. Priest; 2004-12-09

Mr. Peter Constable: Document N2883 is a proposal for four tone marks used in minority languages in Mexico to indicate Tones. These are not combining marks. Other tones used are already unified with existing characters. Only these four are missing.

Disposition: Accepted. See page 3 of document N2883 for names, glyphs and code positions A717—A71A.

Relevant resolution:

## M46.21 (Modifier Tone Letters):

**Unanimous** 

WG2 resolves to add the following four Modifier Tone Letters with their glyphs from document N2883, in Amendment 2:

A717 MODIFIER LETTER DOT VERTICAL BAR
A718 MODIFIER LETTER DOT SLASH
A719 MODIFIER LETTER DOT HORIZONTAL BAR
A71A MODIFIER LETTER LOWER RIGHT CORNER ANGLE
(these characters are NOT combining)

## 7.4.11 Proposal for Aktieselskab character

Input documents:

2887 Proposal Summary Form for Aktieselskab character in "Letterlike symbols" block; Andreas Stötzner-expert;

2004-11-09

2889 proposal is for addition of a character to an existing block, "Letterlike symbols"; Andreas Stötzner-expert;

2004-11-09

Dr. Asmus Freytag: This came from a German specialist working on symbols. The proposed symbol is used to indicate a Corporation (Joint-Stock Company), and sometimes consists of A and S with a slash or horizontal line. It has become a common symbol. There is already a lowercase a/s in letter-like symbols block, but not an upper case version of that.

Disposition: Accepted. 214D is the suggested code position. Glyph from document N2889, similar to the glyph 3 on page 3.

See item b. in the following relevant resolution:

#### M46.22 (Miscellaneous new characters for Amendment 2):

**Unanimous** 

WG2 resolves to add the following new characters in Amendment 2 to ISO/IEC 10646: 2003:

- a. 05BA HEBREW POINT HOLAM HASER FOR VAV with glyph from document N2840, and
- b. 214D AKTIESELSKAB with its glyph similar to glyph number 3 for A/S on page 3 in document N2889.

## 7.4.12 Proposal for Latin Capital Letter Double S

Input document:

2888 Latin Capital Letter Double S; Andreas Stötzner-expert; 2004-11-10

Dr. Asmus Freytag: This document was considered in the Unicode technical committee. The proposal is to include capital form of Sharp S. Normally the small sharp S converts to SS in upper case. The paper proposes a single capital form based on usage in some areas. The usage seems to be mostly from East German side. If we do entertain the proposal it does pose conflict with existing implementation. The

recommendation from the Unicode Consortium is that the proposal should be dealt with as a font issue and not be added to the standard.

Mr. Mike Ksar: Based on experts' input it seems that this character should not be accepted. Can we request the Unicode liaison to communicate the result to the proposer?

Mr. Michael Everson: The author knows that it was rejected earlier. The information that this committee also did not accept is communicated to the author.

Disposition: Rejected.

## 7.4.13 Updated proposal for Uighur, Kazakh and Kirghiz

Input document:

2897

PROPOSING TO SUPPLEMENT WITH THE SPECIAL SCRIPT AND CHARACTER FOR UIGHUR, KAZAKH AND KIRGHIZ; China - NB - Prof. Wushour; 2004-12-25

Mr. Mike Ksar: there was an ad hoc on this subject at this meeting. The authors were requested to provide some more input regarding the shaping rules.

Discussion:

- a. Mr. Peter Constable: It is not clear in my mind that this is only a rendering issue. We need some more clarification on the rendering rules.
- b. Mr. Chen Zhuang: Ad hoc suggested that China do some further study and get some more explanation. We will be doing that.
- c. Mr. Mike Ksar: If we have more input we can look at them at the next meeting.

Disposition: China is asked to review and submit an updated proposal.

Relevant resolution:

## M46.30 (Additional characters for Uighur, Kazakh and Kirghiz):

**Unanimous** 

With reference to proposed additions to the Arabic script in document N2897 to support Uighur, Kazakh and Kirghiz, WG2 invites China to take into account the ad hoc discussions during meeting 46, and provide the requested clarification on rendering rules.

# 7.4.14 Revision - Additional Latin Phonetic and Orthographic Characters Input document:

2906 Revised Proposal for Additional Latin Phonetic and Orthographic Characters; Lorna A. Priest - (L2/04-348); 2004-08-23

Mr. Peter Constable: The first set of 14 characters proposed at 0242 to 025F in this part are in right hand column in document N2906.on page 3. Their names are shown there. Glyphs are as shown in column 024 on that page. None of these characters with bars, strokes etc. are composed characters. They are simply base letters. Some of these characters have their lowercase equivalents already in the standard. Disposition: Accepted. This would make Latin B collection as FIXED. See resolution M46.19 item a below.

Mr. Peter Constable: Left hand column in page 3 has the second set of characters - seven proposed combining marks at 1DC4 -- 1DCA for the Combining Diacritical Marks Supplemental block. The first six are diacritics in phonetic notations for Contour Tones. The seventh one is used in some minority languages used in Indonesia with Latin letters.

Disposition: Accept Seven Combining Marks at 1DC4 to 1DCA; glyphs and names as in column 1DC on page 3. See item b in resolution M46.19 below.

Relevant resolution:

## M46.19 (Latin phonetic and orthographic characters):

**Unanimous** 

With reference to document N2906, WG2 resolves to add to Amendment 2 to ISO/IEC 10646: 2003:

a. the following14 Latin characters in the Latin Extended-B block, with their glyphs as shown on page 3, right hand column in document N2906:

0242 LATIN CAPITAL LETTER B WITH STROKE

0243 LATIN CAPITAL LETTER U BAR

0244 LATIN CAPITAL LETTER TURNED V

0245 LATIN CAPITAL LETTER E WITH STROKE

```
0246 LATIN SMALL LETTER E WITH STROKE
0247 LATIN CAPITAL LETTER J WITH STROKE
0248 LATIN SMALL LETTER J WITH STROKE
0249 LATIN CAPITAL LETTER SMALL Q WITH HOOK TAIL
024A LATIN SMALL LETTER Q WITH HOOK TAIL
024B LATIN CAPITAL LETTER R WITH STROKE
024C LATIN SMALL LETTER R WITH STROKE
024D LATIN CAPITAL LETTER Y WITH STROKE
024E LATIN SMALL LETTER Y WITH STROKE
024E LATIN SMALL LETTER Y WITH STROKE
024F LATIN SMALL LETTER V WITH CURL
(The above makes the Latin Extended-B collection a 'fixed collection'), and.
```

b. the following seven combining characters in the Combining Diacritical Marks Supplement block, with their glyphs as shown on page 3, left hand column, in document N2906:

1DC4 COMBINING MACRON-ACUTE

1DC5 COMBINING GRAVE-MACRON

1DC6 COMBINING MACRON-GRAVE

1DC7 COMBINING ACUTE-MACRON

1DC8 COMBINING GRAVE-ACUTE-GRAVE

1DC9 COMBINING ACUTE-GRAVE-ACUTE

1DCA COMBINING LATIN SMALL LETTER R BELOW

## 7.5 Contributions carried forward from previous meetings

## 7.5.1 Myanmar Additions

Input documents:

2768 Proposal of Myanmar Script Extensions: Mon, Shan, and Karen (Kayin); Myanmar Unicode and NLP Research Center; 2004-05-31

2827 Proposal of 4 Myanmar semivowels; Myanmar Unicode & NLP Research Center; 2004-06-21

Dr. Kyaw Thein: Document N2768 was presented by Myanmar at meeting M45 in Markham. The document was sent for national body feedback and we have not had any input. At this meeting we have had some feedback.

Discussion:

- a. Mr. Mike Ksar: So far no national bodies have sent in any feedback to the proposers.
- b. Mr. Yasuhiro Anan: We contacted the Japanese national body and requested them to take a look. There was a question about some glyphs in the proposal. This has to be resolved.
- c. Mr. Peter Constable: I will take a look at the proposal. It is clear that additional characters are for the minority languages. It is not clear if these should be new characters, can be unified with existing ones, can be sequences etc. I will have some input for you.

Disposition: Mr. Mike Ksar: The document will be carried forward to the next meeting. You will be getting some feedback from experts.

Dr. Yan Tein: Document N2827 was also presented at meeting M45. We are still waiting for some comments on this proposal. The document details some encoding conflicts using the current encodings. To avoid these conflicts 103A—103D semivowels are requested to solve the problem. These appear very frequently in several newspapers. It will not conflict with the Virama usage. Discussion:

- a. Mr. Peter Constable: The letter forms used in the old use and the new use are these used together? The stacked form is used only in old usage. We need to study the alternatives.
- b. Dr. Yan Tein: These appear only in old usage. But we need to be able to distinguish between these.
- c. Mr. Yasuhiro Anan: We requested some clarifications on usage of some of these characters.
- d. Mr. Mike Ksar: Mr. Peter Constable raised the question whether these are contrastively within the same text. The answer was they appear normally either in the old or the new. But they may appear together in the same text. You have some input and you will be getting some more feedback before next meeting. We will carry this document also to the next meeting.

Disposition: Myanmar is to revise the document based on feedback received.

Relevant resolution:

## M46.29 (Myanmar extensions):

**Unanimous** 

With reference to proposed additions to Myanmar script in documents N2768 and N2827, WG2 invites national bodies and liaison organizations to provide feedback to the authors by 2005-07-31, and invites Myanmar national body to prepare revised proposals based on input received at meeting 46 and any other feedback.

### 7.5.2 Counting Rod Numerals

Input document:

2816 Proposal to add counting rod numerals to Unicode and ISO/IEC 10646; Christopher Cullen and John H. Jenkins; 2004-06-18

Document N2816 was introduced in Markham meeting. China wanted some time to study. Only 18 of the 19 are requested at this time.

Disposition: Accept the 18 Counting Rod Numerals in a new block at U+1D360 to U+1D371. Glyphs and names from document N2816 page 4.

Relevant resolution:

#### M46.17 (Counting Rod Numerals):

**Unanimous** 

WG2 resolves to create a new block 1D360-1D37F named 'Counting Rod Numerals' and populate it with the following eighteen Counting Rod Numerals, with their glyphs from document N2816, and include it in Amendment 2 to ISO/IEC 10646: 2003:

1D360 COUNTING ROD UNIT DIGIT ONE 1D361 COUNTING ROD UNIT DIGIT TWO 1D362 COUNTING ROD UNIT DIGIT THREE 1D363 COUNTING ROD UNIT DIGIT FOUR 1D364 COUNTING ROD UNIT DIGIT FIVE 1D365 COUNTING ROD UNIT DIGIT SIX 1D366 COUNTING ROD UNIT DIGIT SEVEN 1D367 COUNTING ROD UNIT DIGIT EIGHT 1D368 COUNTING ROD UNIT DIGIT NINE 1D369 COUNTING ROD TENS DIGIT ONE 1D36A COUNTING ROD TENS DIGIT TWO 1D36B COUNTING ROD TENS DIGIT THREE 1D36C COUNTING ROD TENS DIGIT FOUR 1D36D COUNTING ROD TENS DIGIT FIVE 1D36E COUNTING ROD TENS DIGIT SIX 1D36F COUNTING ROD TENS DIGIT SEVEN 1D370 COUNTING ROD TENS DIGIT EIGHT 1D371 COUNTING ROD TENS DIGIT NINE

## 7.5.3 Phonetic click characters

Input document:

2790 Proposal to add Bantu phonetic click characters to the UCS; Everson; 2004-06-10 Mr. Michael Everson: The proposal is not yet mature. There is some ongoing work, Disposition: Carry forward to next meeting.

### 7.5.4 Samaritan Pointing

Input document:

2758 Proposal for an additional 12 Hebrew characters; Elaine Keown - individual expert; 2004-05-12

Mr. Michael Everson: Mr. Mark Shoulson has some more input from one of the Samaritan experts and will take that input to the work on this topic. Disposition: Carry forward to next meeting.

## 7.5.5 Dominoes and Games Symbol

Input document:

2760 Proposal to encode dominoes and other game symbols; Everson; 2004-05-18

Disposition: No new input. Carried forward to the next meeting.

#### 8 **Architecture issues**

#### 8.1 **Contribution on Annex on Identifiers**

Input document:

Contribution on Annex on Identifiers; USA and Unicode Consortium; (prepared by V.S. Umamaheswaran); 2895 2005-01-17

Dr. Umamaheswaran: Document N2895 is in response to the work item we accepted via resolution M45.23. An informative annex is proposed for acceptance by WG2 and inclusion in WG2. Discussion:

- a. Mr. Tatsuo Kobayashi: Has this been sent to SC22?
- b. Dr. Umamaheswaran: No. It has to be adopted by WG2 first and then forwarded to SC2 for transmitting to SC22.
- c. Mr. Mike Ksar: Any objections to including it in Amendment 2? National bodies can feedback during ballot.
- d. Dr. Ken Whistler: Once we have approved the suggested text --- someone should take the action to forward this to SC22.
- e. Mr. Mike Ksar: Yes.

Disposition: Accepted in principle. Include request to forward to SC22 in the resolution. Relevant resolution:

M46.10 (Characters in identifiers):

Unanimous

WG2 accepts the proposal for an informative annex on 'Characters in Identifiers' in document N2895, and instructs its editor to prepare appropriate text and include it in Amendment 2 to ISO/IEC 10646: 2003. Further, SC2 secretariat is requested to forward document N2895 to SC22.

#### 8.2 **Hangul Transliteration rules**

Input document:

2918 Hangul transliteration rules response to action item 43-11; Kyongsok Kim; 2005-01-25

Professor Kyongsok Kim: Document N2918 is in response to an AI on Korea. ISO TS11941: 1996 is used for transliteration as used in TC46. DPRK did not use 11941 in their work on transliterating the Hangul names. The tables from ISO 11941 are reproduced from ISO standard. Our recommendation is that we use this for ISO/IEC 10646 work in the future. Discussion:

- a. Mr. Mike Ksar: Can we get feedback from DPRK?
- b. Professor Kyongsok Kim: We can send the document, but there is no way of assuring getting a feedback from DPRK.
- c. Mr. Michael Everson: The ISO 11941 was a TR and not a standard. I am the convener in TC46 WG3 and this document is under that WG's program of work.
- d. Professor Kyongsok Kim: The ISO process changed the document to TS and is available only in electronic form.

#### Relevant resolution:

## M46.26 (Hangul transliteration rules):

Unanimous

WG2 notes the input on Hangul transliteration rules from ISO TR11941: 1996 in document N2918, which have been used to arrive at the names for Hangul characters in ISO/IEC 10646: 2003 and invites all national bodies and liaison organizations to take note.

#### 8.3 **Block Names**

Input document:

Block Names and Annex L update; USNB, Michel Suignard; 2005-01-25 2919

Dr. Asmus Freytag: What we are trying to do with this document is to establish the principle not the exact wordings. To limit the block names to the same set of characters as character names. In code charts we are continuing to use lower case letters – which means two block names cannot just differ in case. Annex L also contains a set of rules on characters, not all of these are applicable to Block names. The intent is to specify the set of characters that can be used in Block names. We can instruct the editor to restructure Annex L, to separate out parts that will be applicable to block names as well. If we agree to this in principle we can include the text in Amendment 2 and seek comments. The idea is to have single

identifier syntax for names used for different purposes. Then we can have additional rules etc. for different purposes.

Discussion:

- a. Mr. Masahiro Sekuquchi: If we agree in principle the exact text of Annex L, will be in next ballot? YES.
- b. Mr. Michel Suignard: We are NOT making any changes to the character names. These will continue to follow the existing rules. Defacto most of the items in Annex L is normative. Some parts are informative. The whole Annex L is currently informative. The proposal in document N2919 is also to make the Annex L normative. The text rewrite of Annex L will also be to separate the normative from informative parts.
- c. Dr. Ken Whistler: Annex L is also in P&P document. Whatever changes are made should be reflected in that document also, after the Annex L revised gets approved.

Disposition: Accept N2919 in principle and instruct the editor to revise Annex L. Relevant resolution:

M46.11 (Block names and Annex L revision): Abstention: Korea (Republic of) Approval: Canada, China, Ireland, Japan, Mongolia, Poland and the USA

WG2 accepts the recommendations in document N2919 on adding rules for naming of blocks, collections and named UCS Sequence Identifiers in Annex L and changing the status of Annex L to be Normative. WG2 further instructs its editor to prepare appropriate revised text, including separating the informative and normative portions, for inclusion in Amendment 2 to ISO/IEC 10646: 2003.

Action item: Ad hoc on P&P to take note, for future update to Annex L copy in P&P document.

#### **Seventeen Plane Restriction**

Input document:

2920 Seventeen planes restriction; USNB, Michel Suignard; 2005-01-25

Dr. Asmus Freytag: The background to the request is that there is a perception that ISO/IEC 10646 and Unicode are not fully synchronized. In ISO/IEC 10646 one can talk about planes outside Unicode ... even though all other planes in the standard are permanently reserved. The goal is to add text to the standard towards eliminating the perception of this difference. Discussion:

- a. Mr. Mike Ksar: There was a similar input in one of the previous meetings from Mr. Zhang Zhoucai, China. It is not just the US / Unicode input.
- b. Dr. Ken Whistler: The wording of the third bullet is the key. We already had language in the standard. It spells out what is permanently reserved in the standard.
- Mr. Masahiro Sekiguchi: I am hearing from user communities in Japan that 17 planes are not sufficient. It is important that ISO/IEC 10646 allows for more characters. It may not be our intent to use beyond the 17 planes.
- d. Dr. Ken Whistler: This kind of concerns is raised in a lot of forums. The change is requested to address such concerns. Characters cannot get into the standard without approval from this committee. There are about 800 000 character positions unassigned. It may take about 800 years to reach the limit at the rate we are adding characters now. I don't think it is appropriate to signal to the user community that this committee leaves the de-synchronization
- e. Mr. Michael Everson: Irish position is that a limitation is reasonable, until the 17 planes are filled. At that time if we need the space we can look at it.
- Mr. Masahiro Sekiguchi: The users feel that 17 planes are not sufficient. I am not objecting to the idea to state that ISO/IEC 10646 will not add characters that cannot be addressed also by the Unicode standard. At this time I do not have alternate text.
- g. Dr. Umamaheswaran: One thing we should keep in mind that UTF-16 already has an upper limit of end of Plane 16. If we do not restrict beyond that limit, there will be a potential inconsistency in the standard.
- h. Dr. Ken Whistler: The best way in the standardese of ISO/IEC 10646 is to state that the code positions beyond the limit are Permanently Reserved. The octets are still there; the planes are still there from architecture point of view.

- Mr. Taichi Kawabata: PUA has only two planes and a few rows. There may be user groups who want to use these planes for private use purposes. 17 planes may not be enough.
- Mr. Mike Ksar: The editor has taken the material out of the Amendment 1 ballot comments from the US. I would suggest that the proposed text be accepted for inclusion in Amendment 2. The national bodies can propose alternate wordings to be able to improve on the text during ballot response.
- Mr. Michel Suignard: The important point is the comment you made about the characters the user makes. One could do whatever someone wants in the UCS 4 space.
- Mr. Masahiro Sekiguchi: I want to promote ISO/IEC 10646. Some people are emotionally objecting to the limited code space. I hear that 20 bits are not enough.
- m. Mr. Mike Ksar: The architecture is not changing. Would like to have backed up rationale if the proposed text is not adequate.
- n. Mr. Masahiro Sekiquchi: The difficulty I have with the proposal --- is only in terms of how to word in such a way that we can address our concerns.
- o. Mr. Michel Suignard: Document N2920 contains terms that need to be updated.

Disposition: Accept document N2920 in principle for inclusion in Amendment 2. Relevant resolution:

M46.12 (17-plane restriction):

**Abstention: Japan** Approval: Canada, China, Ireland, Korea (Republic of), Mongolia, Poland and the USA

WG2 accepts in principle the recommendation to permanently reserve all code positions beyond Plane 16 from document N2920 and instructs its editor to prepare appropriate text and include it in Amendment 2 to ISO/IEC 10646: 2003.

#### 8.5 Named USIs

Input document:

Named UCS Sequence Identifiers; US NB, Michel Suignard; 2005-01-25 2921

Mr. Michel Suignard: This document is in response to an action item on the US national body regarding named sequences. It is loosely based on a similar document in Unicode. We are seeing more and more usage of ISO/IEC 10646 for mapping purposes. Also users would like to reference USIs to match a national character set code point. In addition to USIs they would like to use names for the USIs that look like character names. We also have seen that new combined characters get normalized out, and we cannot add these composite characters into the standard as single code positions. We have seen in the HKSCS case we have defined four USIs. These have been accepted, and these have some names as

The US national body had an action item to provide a framework for providing Named USIs and conventions on naming these. The name space between Names of Characters and Names of USIs must not collide. The names used for components of USI names follow the same rules as for the names. The document also gives examples of named USIs using the framework / naming rules.

The set of named USIs that are accepted for inclusion in the standard itself is proposed to be a linked file.

Annex L should also be extended to address these named USIs. I also would like to get an acronym for these named USIs.

Discussion:

- a. Dr. Asmus Freytag: Editorially in terms of including these in ISO/IEC 10646, the naming syntax can be Annex L. The main clause where Named USIs are introduced can point to rules in
- b. Mr. Taichi Kawabata: Where does the list of USIs come from?
- Mr. Michel Suignard: This list came from a collection we have accepted, we had been requested and rejected in the past, and is for information at this time.
- d. Dr. Asmus Freytag: One of the main goals of having this mechanism is to have an answer to specific requests that could be represented by USIs, but also have names. It is important that we do not go out and name all possible sequences.
- e. Mr. Michel Suignard: Not all allowed sequences are named in the standard.
- Mr. Taichi Kawabata: If a requested character can be represented by an USI, would that character go into the list of named USIs?

- g. Dr. Asmus Freytag: It may be added.
- h. Dr. Ken Whistler: Those characters that were rejected from past proposals for composites that could be represented by USIs were the candidates that are shown in the proposal.
- i. Mr. Taichi Kawabata: That means in the future there may be requests for Named USIs.
- j. Mr. Yasuhiro Anan: May be I missed the point. In ISO/IEC 2375 registry, if a new local character set standard is registered, if the submitter maps to ISO/IEC 10646, and if someone wants to request for a named USI be included in the standard what would be the procedure?
- k. Dr. Ken Whistler: For mapping purposes alone one does not need a Named USI. A USI alone would be sufficient. A USI with the name used by the local standard would be sufficient. Only if there is a good reason for asking ISO/IEC 10646 to include the named USI we should consider it.
- I. Mr. Yasuhiro Anan: Local standards try to align their character names with ISO/IEC 10646. If they have aligned all their names with ISO/IEC 10646 but not the USIs within their standard that can be a concern.
- m. Dr. Ken Whistler: May be that a national body has decided to align all their names with ISO/IEC 10646. That may be a sufficient reason. However, a named USI is not needed for just indicating the mapping to and from ISO/IEC 10646 and the national body can have their own names.
- n. Dr. Asmus Freytag: There is currently no mechanism for others to use a named USI, which may end up in conflicting with a character name. We can give some guidelines for our naming conventions. The national bodies can have their own names but not conflicting with the names in the standard.
- o. Dr. Asmus Freytag: This discussion brings out a potential need for naming guidelines for others to name sequences.
- Mr. Mike Ksar: It is not a registry. Names used by other standards are not within our scope.
- q. Dr. Asmus Freytag: if we want to keep away from the business of not encoding all sequences for everyone we have to come up with a means of not clashing with namespace.
- r. Mr. Michel Suignard: Having a prefix was discussed earlier and was not accepted. Ballot comments can bring suggestions to improve.
- s. Dr. Umamaheswaran: We have also to think of evaluation criteria for what would qualify to be an acceptable Named USI?

Disposition: Accepted in principle

Relevant resolution:

M46.13 (Named USIs):

Abstention: Korea (Republic of)
Approval: Canada, China, Ireland, Japan, Mongolia, Poland and the USA

WG2 accepts in principle the recommendations in document N2921 for a new normative clause and relevant naming rules for named UCS Sequence Identifiers, and instructs its editor to prepare appropriate text and a set of named UCS Sequence Identifiers that have been accepted to date, and include these in Amendment 2 to ISO/IEC 10646:

## 9 Publication issues/Policy Issues Review and resolve

## 9.1 Proposed Joint (Unicode, ISO/IEC) font license agreement

Input document:

2003.

2890 Proposed joint (Unicode, ISO/IEC) font license agreement; Canada; 2005-01-07

Canada has proposed an updated font license agreement form to incorporate ISO/IEC also. The request is to get feedback on this document from national bodies as well as Unicode Consortium. Discussion:

- a. Dr. Asmus Freytag: Whatever policies we adopt should cover ISO/IEC 10646 interest as well. This is a tricky issue and needs lot of discussion.
- b. Dr. Umamaheswaran: Canada's request is to get the contribution reviewed and feedback for WG2 to take a decision at the next meeting.
- c. Mr. Tatsuo Kobayashi: I would like to hear Chinese opinion.
- d. Mr. Michael Everson: This is a legal document. Sending it to SC2 would make it appear that we have some endorsement from WG2 members.

- e. Mr. Chen Zhuang: If we put Unicode consortium here, I am not sure if the Font Vendors will provide the resources to Unicode consortium. I prefer to remove the Unicode from this grant of license.
- f. Mr. Mike Ksar: This is new feedback.
- g. Dr. Umamaheswaran: Please remember that the current license form has been already adopted and is on the Unicode web site.
- h. Mr. Michel Suignard: Removing Unicode from the grant of license is very unwise. Defacto we have been working in this mode already.
- i. Mr. Dae Hyuk Ahn: Font license issues, we need to consider what aspect of fonts can be modified or not, when using the fonts.
- j. Dr. Asmus Freytag: It is a tricky issue and we have dealt with that concern in the past. We have used the license as you see by default. I would not like to take away the flexibility we have had so far by over-specifying in the license.
- k. Mr. Mike Ksar: I would encourage Korea to discuss and feedback.
- I. Mr. Michel Suignard: It is pretty clear that we cannot change things in a font. I prefer not to open up the discussion. The only thing that is within the scope is to produce the .PDF for ISO.

Action item: National bodies and liaison organizations to study and feedback.

## 9.2 Roadmap snapshot

Input document:

2894 Roadmap snapshot - updated N2652; Uma; 2005-01-04

Dr. Umamaheswaran briefly described the changes to the roadmap snap shot document N2894.

Relevant resolution:

Disposition: Accepted.

## M46.28 (Roadmap snapshot):

**Unanimous** 

WG2 accepts the updated snapshot of the roadmaps in document N2894 and instructs its convener to post the updated document to the WG2 web site.

#### 9.3 Updated Principles & Procedures

Input document:

2902 Updated Principles & Procedures (update to N2652); Uma; 2005-01-14

Dr. Umamaheswaran went over the specific changes done to the document. It captures many of the action items on the ad hoc on principles and procedures since the last update to the document. Discussion:

- a. Dr. Asmus Freytag: If it is possible to link to relevant web site for referencing ISO standards, it should be included in the document.
- b. Dr. Umamaheswaran: If it is easily do-able it will be incorporated.

Disposition: Accepted.

Relevant resolution:

## M46.27 (Principles and procedures):

Unanimous

WG2 accepts the updates to its principles and procedures as presented in document N2902 and instructs its convener to post the updated document and the proposal summary form to the WG2 web site.

## 10 IRG status and reports

#### 10.1 IRG report

Input documents:

2892 IRG #23 - Resolutions; IRG; 2004-12-02

2917 IRG Summary to WG2 meeting 46; IRG Rapporteur; 2005-01-24

Dr. Lu Qin: Document N2917 contains a report on IRG activities.

Item 1: Need approval for future meeting IRG-24 2005-05-24/27. Japan. Future meetings planned are: IRG 25 in Mountain View, CA --- date is tentative. IRG 26 – Taiwan has the first choice, and IRG 27 – can be in HKSAR, awaiting approval.

See relevant resolution M46.33 on page 58.

Item 2: Request for Approval in delay of Extension C.1 work. Due to complexity of the work we need an extension by 1 year to the target date. 19000 to 20000 ideographs are being considered. The collection is not stable vet.

#### Discussion:

- a. Mr. Michel Suignard: Will it fit in plane 2?
- b. Dr. Lu Qin: No. We have made tentative provision that plane 3 will be needed.
- Dr. Asmus Freytag: From the roadmap point of view we could mark the free area in plane 2 for ext C.1. It is not binding.
- d. Mr. Mike Ksar: If we need to add more things to plane 2 would like to have the freedom. The preference is to wait till more information is available from IRG.
- e. Dr. Lu Qin: IRG is not assigning code positions any way.
- f. Dr. Asmus Freytag: If the collection will fit into plane 2, the roadmap can indicate that. Maybe we should await more firm number from IRG.

#### Relevant resolution:

## M46.31 (New target for CJK Extension C1 work):

**Unanimous** 

With reference to item 2 in document N2917, WG2 approves the extension of the target completion date for CJK Extension C1 to the end of 2005.

Item 3: IICORE - the classification or source information for the collection, IRG will maintain to help out the vendors if WG2 will not publish the information.

Mr. Michel Suignard: We discussed this item already (see discussion under item 7.1.7 on page 24 and the relevant resolution M46.6 item c on page 32). The information is already in the Amendment. I need the latest information from IRG.

Item 4: On assessing the CJK Visual Ref information effort, we could not come to a consensus yet. IRG members are requested to do some more research and get some more meaningful input.

Item 5: Old Hanzi expert group has been formed. Awaiting experts input.

CJK Strokes - there was some input including that from Mr. Richard Cook. The encoding model and related work will be discussed at the next meeting.

Mr. Mike Ksar: You have an aggressive schedule. It is good progress in IRG with good participation from various national bodies.

### 11 Defect reports

## 11.1 Possible Defect in Annex E.2 – Other Mirrored Characters

## Input document:

Possible Defect in Annex E.2 -Other Mirrored Characters; Canada (V.S. Umamaheswaran, Patrick Andries); 2877 2004-12-02

Mr. Michel Suignard: Annex E.2 should contain only characters that have asymmetrical form. Discussion:

- a. Dr. Ken Whistler: The glyphs in the script are only representative. It is impossible to determine which are symmetrical and which are not.
- b. Mr. Michel Suignard: There is no harm in being over-inclusive.
- c. Dr. Umamaheswaran: In case of Tifinagh Canada did make an attempt to filter out the ones having potentially asymmetrical form.
- d. Dr. Asmus Freytag: For the punctuation characters it makes sense based on glyph asymmetry. For letters one may get into the domain of glyph-shaped based on symmetry. It will be prudent in principle to be inclusive.
- e. Dr. Umamaheswaran: We have already made a distinction between two categories of E.1 and
- Mr. Michel Suignard: E.1 is aligned with bidi-mirrored property of Unicode. E.2 has no equivalent on the Unicode side.

- g. Dr. Ken Whistler: It is a set of things that have been put into E.2. There is not set principle to determine what goes in there.
- h. Mr. Michel Suignard: There are several other scripts in the same category. We may think of striking E.2 altogether.
- Dr. Asmus Freytag: I am somewhat in favour of your analysis. However we should not throw out these. In these cases there are characters that are mutually mirrors of each other. It is E.1.
- Dr. Umamaheswaran: The scripts that are potential candidates for inclusion in E.2 are those which were flagged as potentially being written left to right or right to left.
- k. Dr. Ken Whistler: Almost every Mediterranean from early enough periods has been written either L to R or R to L. It is best not to add any new stuff to E.2.
- Dr. Asmus Freytag: Instead of removing the annex E.2, we replace it with a paragraph explaining the behaviour of scripts which can be written left to right or right to left. We will not provide a definitive list. It will satisfy the intent of E.2.
- m. Dr. Ken Whistler: I will be glad to assist in writing some text in E.2.
- n. Mr. Mike Ksar: Is there parallel information in Unicode?
- o. Dr. Ken Whistler: Yes, scattered all over the place in the standard.

Disposition: The current list of mirrored characters will be removed. No new entries will be made in E.2. Replace with an appropriate text explaining the nature of some of the scripts and that implementers should do the appropriate glyph mirroring. Examples will be Old Italic and Tifinagh. Relevant resolution:

## M46.1 (Defect in Annex E.2):

**Unanimous** 

With reference to the potential defect in Annex E.2 (reported in document N2877), WG2 instructs its editor to:

- a. Remove the current list of characters listed in the annex, and,
- b. Provide suitable explanatory text explaining the precautions to be taken regarding mirroring of glyphs when a script may be rendered in either left to right or right to left direction.

for inclusion in Amendment 1 to ISO/IEC 10646: 2003.

## 11.2 Correcting reference glyph LATIN CAPITAL LETTER Y WITH HOOK

Input document:

2859 Correcting reference glyph for U+01B3 LATIN CAPITAL LETTER Y WITH HOOK (SC02n3768): Canada (Contact: Patrick Andries); 2004-10-19

Mr. Michel Suignard: The US is supporting the glyph change requested by the defect report in document N2859 concerning the character 01B3 LATIN CAPITAL LETTER Y WITH HOOK which would result on the hook moving from the left to the right. This would make the glyph consistent with the glyph used for the small letter form 01B4 SMALL LETTER Y WITH HOOK. The glyph with the hook on the right is also much more prevalent on African writing system where it used. The US is not in favour of the encoding of another capital character Y with the hook on the right. The Glyph Change is to recognize the same character with a different glyph.

### Discussion:

- a. Dr. Asmus Freytag: I am satisfied that the proposed glyph change for the same character is correct based on evidence provided.
- b. Mr. Michael Everson: We already have a font for the change requested.

Disposition: Accept the proposed new glyph for 01B3.

Relevant resolution:

## M46.2 (Defect in glyph for Y with Hook):

**Unanimous** 

With reference to the defect in the glyph for 01B3 LATIN CAPITAL LETTER Y WITH HOOK (reported in document N2859), WG2 instructs the editor to change the glyph to Y with the hook on the right, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.

## 11.3 Discrepancy between names & glyphs

Input document:

Defect Report - Discrepancy between name and glyph of U+2B00, U+2B01, U+2B08 and U+2B09; Patrick 2868 Andries & François Yergeau (Canada); 2004-11-15

Dr. Umamaheswaran: The glyphs and names for the code positions 2B00 and 2B01 do not match; same with 2B08 and 2B09. The solution is to swap the corresponding glyphs. There is also US FPDAM1 ballot comment T.7 requesting this correction.

Disposition: Accepted. Relevant resolution:

## M46.3 (Discrepancy between names and glyphs for some arrows): Unanimous

With reference to the discrepancy between glyphs and character names for four arrows (reported in document N2868), WG2 instructs its editor to correct the glyphs by swapping the glyph for 2B00 with the glyph for 2B01, and the glyph for 2B08 with the glyph for 2B09, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.

## 11.4 Defect Report on KangXi Radical Forms, revisited

Input document:

Defect Report on KangXi Radical Forms, revisited; Richard Cook - expert contribution; 2004-11-18 2882

Mr. Michel Suignard: This document is in response to an action item on the US national body. The document identifies that the previous defect report in document N2659 is still applicable. The suggested solution was to change the fonts used for KangXi radicals in the standard.

Disposition: We accept the defect report in principle. If the font is supplied it will be used for Amendment 2 for creating the KangXi Radical charts.

Relevant resolution:

## M46.4 (Defect in glyphs for four KangXi radicals):

Unanimous

With reference to the defect on four KangXi radicals (reported in documents N2882 and N2659), WG2 instructs the editor to use the appropriate font in preparing the charts showing the glyphs for U+2F35, U+2F61, U+2F71 and U+2FCD, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.

## 12 Liaison reports

#### 12.1 Unicode Consortium

Input documents:

UTC Liaison Report - meeting 46; Asmus Freytag; 2005-01-19 2873

Dr. Asmus Freytag: Document N2873 contains the liaison report. I would encourage the delegates to read it at their leisure. I would like to highlight three items.

- a. We did endorse the ballot comments through the US national body. We are glad the way these got resolved at this meeting. It will help us to synchronize Unicode 4.1 with the Amendment 1. The next Amendment or Amendments will be synchronized with 5.0 version.
- b. We have had two tech committees. The UTC deals with the Unicode standard. The second one is CLDR technical committee. It maintains common locale data repository. Locale specifications can be collected in a formal way and made available on line. The CLDR TC works with many vendors and seeks input from national bodies to get input. The national body experts are encouraged to work with CLDR TC. That TC works only by telephone conferences and a web site exists where all the information is available.
- c. We have finalized an identifier syntax to help out in using characters in identifiers. Topic is similar to what TR 10176 Annex A addresses. We encourage national bodies to communicate to the SCs in their national bodies working on identifiers.

## 12.2 IETF

Mr. Michel Suignard: There are two new documents: Revised URI document RFC 3986. There is also RFC on IRI that uses ISO/IEC 10646 for characters in the IRI – RFC 3987 was published very recently. You can download these from IETF web site. There is no progress on e-mails. Discussion:

- a. Mr. Alain LaBonté: What would be the encoding form specified in IRI.
- b. Mr. Michel Suignard: it could be anything ... even on a piece of paper in ISO/IEC 10646.
- c. Dr. Ken Whistler: If you have a window of text in UTF-8 and you put an IRI inside it is in UTF-8.

Mr. Peter Constable: RFC 3066 is a specification for Language Tags in Internet protocols. There is work underway to revise this RFC to accommodate existing needs to express not only the language but also its specific written form. A number of changes in addition that were put in the draft. Over a period of about a year a number of revisions were made. During the Last Call process input from IETF sub groups caused the last call to fail. Work is under way to address these comments. Related to this RFC is ISO 639. Part

2 provides three letter identifiers for a limited set of repertoires. ISO 639 Part 3 provides a comprehensive list of more three letter identifiers for languages – is under DIS ballot.

## 12.3 TC46: Report on transfer of TC46/SC4 to JTC1/SC2

Input document:

2865 Report on the transfer of ISO TC46/SC4 standards to ISO/IEC JTC1/SC2; Michael Everson; 2004-10-29

Mr. Michael Everson: At the Washington DC in October 2004 meeting of TC46 SC4, they reiterated their long-standing policy of transferring to SC2. ISO 5426-2. ISO 6861 Glagolitic, and ISO 8957 Hebrew are being transferred to SC2. Cyrillic for non-Slavic languages etc. and Bibliographic will be retained. The standards transferred to SC2 are most likely will be stabilized within SC2.

#### 12.4 SC22

#### Input documents:

Extensions for the programming language C to support new character data types; SC22/WG14; N1040; 200311-07
SC22 Plenary 2004 Resolutions; SC22 Secretariat; 2004-09-09
Announcement of I18N Rapporteur – John Benito; SC22 - N3839; 2004-12-14
Meeting Notice for SC 22 I18NRG Meeting - 2005-03-16/18, Tokyo, Japan; SC22 Secretariat – N3836; 2004-1209

2896 PRELIMINARY AGENDA FOR 16 - 18 March 2005 MEETING OF ISO/JTC1/SC22/I18NRG; I18NRG/N1108; I18NRG - John Benito; 2005-01-06

Mr. Mike Ksar: Delegates can read up from the above relevant documents. SC22 met in Pusan in January. SC22 WG20 has been disbanded. The work has been transferred to SC22. They decided to create a Rapporteur's Group on i18N – having a meeting in March 2005 in Tokyo - see document N2896.

### 12.5 W3C

No report from our W3C liaison. Their charter has been renewed recently.

#### 12.6 CDSG

Input documents:

2857 CDSG Meeting Minutes – 2004-10-01; CDSG; 2004-10-02

2858 CDSG Action Item List from meeting 2004-10-01; CDSG; 2004-10-02

2899 CEN/ISSS Cultural Diversity Steering Group Term of Reference; CDSG - CEN/ISSS; 2005-01-12

Document N2841 shows work on defining new C data types to support ISO/IEC 10646.

Mr. Mike Ksar: CDSG is Cultural Diversity Steering Group of CEN ISSS. Mr. Marc Kuester is the chair. Reports are given in the above documents and are FYI. Document N2899 contains the terms of reference. It indicates that some of their localization requirements are not met. Delegates can take a look at these documents and feedback to the CDSG.

## 13 Other business

## 13.1 Web Site Review

Mr. Mike Ksar: I have improved the site slightly since I took over from the last meeting. There are still some links that are not quite functional; I can use any help to improve the site. Discussion:

- a. Mr. Tatsuo Kobayashi: There are some documents on SC2 site that are protected. The same documents are NOT protected on WG2 site.
- b. Mr. Mike Ksar: If there are some documents that should not be on the WG2 site we could just put a pointer to the SC2 site. The secretariat can inform me and I will not put these documents on the WG2 site. The Amendment texts, however, will be posted to WG2 site, even if they are protected on the SC2 site.

#### Relevant resolution:

## M46.34 (Appreciation to DKUUG for web services):

By Acclamation

WG 2 thanks DKUUG, for its continued support of the web site for WG 2 document distribution and the e-mail server.

## 13.2 Future Meetings

## Meeting 47

Mr. Mike Ksar: The current August 2005 date and venue has to be reviewed. We were seeking a host in Europe. I have found a willing host in Europe; it is Mr. Jan van den Beld of ECMA. ECMA used to be secretariat of SC2. The venue will be Southern France – Sophia Antipolis at ETSI facilities. Dates of August 1 as well as September 19 are open. We will need also more time to process the FPDAM2. The ballot responses will not be in by August 1.

#### Discussion:

- a. Professor Kyongsok Kim: September 19 is not good for Korea it is after a holiday. It will not be easy to get flights.
- b. Dr. Lu Qin: It is a holiday in Hong Kong and China also.
- c. Mr. Alain LaBonté: SC36 plenary is that week. SC22 plenary is the following week.
- d. Mr. Masahiro Sekiguchi: It is OK for Japan.
- e. Mr. Chen Zhuang: It is OK for China.
- f. Mr. Mike Ksar: We can start WG2 opening on Tuesday. We can have ad hocs on Monday.
- g. Korea would like to attend ISO/IEC 14651 editing meeting too. Korea can attend the meeting starting Tuesday.
- h. Dr. Umamaheswaran: Next plenary of SC2 is scheduled for Jan 2006 along with WG2. SC2 secretariat has to revisit that date.
- Mr. Mike Ksar: Tentative date for M47 Sept 19/23 2005. (Later) I have received message from our host that September date is not suitable. It is moved to October 10/14, hosted by ECMA, at ETSI in Sophia Antipolis, in southern part of France.
- Meeting 48

Spring 2006: Tentative Canada; backup USA

Meeting 49

Fall 2006: Asia (seeking a host)

Meeting 50

Spring 2007: Europe (seeking a host)

## Relevant resolution:

## M46.33 (Future meetings):

**Unanimous** 

WG 2 meetings:

Meeting 47 – 2005-10-10/14 (to be confirmed), ETSI, Sophia Antipolis, France (Host: ECMA)

Meeting 48 - Spring 2006, Canada (Tentative), backup US; along with SC2 plenary

Meeting 49 – Fall 2006, Asia (seeking Host)

Meeting 50 – Spring 2007, Europe (seeking Host)

IRG meeting:

IRG #24 - Japan, 2005-05-23/27

IRG #25 - Mountain View, CA, USA (Unicode Consortium), 2005-12-12/16 (tentative)

## 14 Closing

## 14.1 Approval of Resolutions of Meeting 46

**Output document:** 

2904 Resolutions - SC2/WG2 meeting 46 - Xiamen, China; Ksar; 2005-01-28

Experts from Canada, China, Ireland, Japan, Korea (Republic of), Mongolia, Poland, the Unicode Consortium (Liaison) and the USA were present when the set of draft resolutions were reviewed and adopted with changes. Corrections were made during the discussion. Additional editorial corrections were made after the meeting closed. The set of adopted resolutions is in document N2904.

## 14.2 Appreciations:

Mr. Mike Ksar: I want to thank Mr. Alain LaBonté for good preparation and conducting the ISO/IEC 14651 editing meeting ... it went very well. I want to thank the Unicode liaison representative for the active participation and the contribution made in our work. Our work benefits a great deal with input from Unicode. I also want to thank all the experts who participated in the various ad hocs in arriving at

consensus. Finally I would like to thank our hosts for arranging the meeting, the banquet and the excursion planned for this afternoon.

Relevant resolution:

## M46.35 (Appreciation to Host):

By Acclamation

WG 2 thanks the host, the Chinese Electronic Standardization Institute, and in particular Mr. Wang Lijian, Mr. Chen Zhuang, Mr. He Zheng-An, Ms. Zhao Jingua, Ms. Yu Yuntao and Ms. Dai Hong, for hosting the meeting and their kind hospitality

## 14.3 Adjournment

The meeting adjourned at 11:15h on 2005-01-28.

#### 15 Action items

All action items recorded in the minutes of the previous meetings from M25 to M42 have been either completed or dropped. Status of outstanding action items from earlier meetings M43 to M44, and new action items from the latest meeting M45, are listed in the tables that follow.

- a. Meeting 25, 1994-04-18/22, Antalya, Turkey (document N1033)
- b. Meeting 26, 1994-10-10/14, San Francisco, CA, USA (document N1117)
- c. Meeting 27, 1995-04-03/07, Geneva, Switzerland (document N1203)
- d. Meeting 28, 1995-06-22/26, Helsinki, Finland (document N 1253)
- e. Meeting 29, 1995-11-06/10, Tokyo, Japan (document N1303)
- f. Meeting 30, 1996-04-22/26, Copenhagen, Denmark (document N1353)
- g. Meeting 31, 1996-08-12/16, Québec Čity, Canada (document N1453)
- h. Meeting 32, 1997-01-20/24, Singapore (document N1503)
- i. Meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document N1603)
- j. Meeting 34, 1998-03-16/20, Redmond, WA, USA (document N1703)
- k. Meeting 35, 1998-09-21/25, London, UK (document N1903)
- I. Meeting 36, 1999-03-09/15, Fukuoka, Japan (document N2003)
- m. Meeting 37, 1999-09-17/21, Copenhagen, Denmark (document N2103)
- n. Meeting 38, 2000-07-18/21, Beijing, China (document N2203)
- o. Meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece (document N2253)
- p. Meeting 40, 2001-04-02/05, Mountain View, CA, USA (document N2353), and
- q. Meeting 41, 2001-10-15/18, Singapore (document 2403)
- r. Meeting 42, 2002-05-20/23, Dublin, Ireland (document N2453)

#### 15.1 Outstanding action items from meeting 43, 2003-12-09/12, Tokyo, Japan

Item	Assigned to / action (Reference resolutions in document N2554, and unconfirmed minutes in document N2553 for meeting 43, with any corrections noted in section 3 of document N2653 from meeting 44)	Status
AI-43-7	IRG Rapporteur (Mr. Zhang Zhoucai)	
С	Per discussion on document N2526 on Ideographic Strokes versus	
	Ideographs, IRG should separate the candidate characters for being Strokes	
	versus ideographs.	
	M44, M45, M46 – in progress.	
d	With reference to document N2571, IRG is encouraged filter the input on	
	Ancient Ideographs before WG2 considers them.	
	M44, M45, M46 – in progress.	
AI-43-9	The Irish national body (Mr. Michael Everson)	
d	To update the roadmap to provide some guidelines for differentiating	
	Ideographic Strokes from Ideographs addressing concerns expressed in	
	document N2526.	
	M44, M45, M46 – in progress.	

### 15.2 Outstanding action items from meeting 44, 2003-10-20/23, Mountain View, CA, USA

Item	Assigned to / action (Reference resolutions in document N2654, and unconfirmed minutes in document N2653 for meeting 44, with any corrections noted in section 3 of document N2753 from meeting 45).	Status
AI-44-5	IRG Rapporteur (Mr. Zhang Zhoucai)	
а	To respond to resolution <b>M44.17 (IRG Action Items)</b> WG2 instructs IRG to review and report to the next WG 2 meeting on the following:	
	a b	

Item	Assigned to / action (Reference resolutions in document N2654, and unconfirmed minutes in document N2653 for meeting 44, with any corrections noted in section 3 of document N2753 from meeting 45).	Status
	c. item 1 – Clarification - in document N2667, for each of the eight dictionary entries, extract from the SuperCJK database additional information in the format (such as dddd.ddd for HYD) identified in the Editor's Note on page 2 in document SC2 N3673 (FPDAM-1 to ISO/IEC 10646-2), and prepare input suitable for adding to the CJKU_SR.txt file, for consideration at the next WG 2 meeting in June 2004.  M45 – In progress	
AI-44-7	The Irish national body (Mr. Michael Everson)	
b	To resolve differences between documents N2619 and N2620 on Saurashtrian script working with the authors of these documents and to submit an updated document. M45 – In progress	

## 15.3 Outstanding action items from meeting 45, 2004-06-21/24, Markham, Ontario, Canada

Item	Assigned to / action (Reference resolutions in document N2754, and unconfirmed minutes in document N2753 for meeting 45 - with any corrections	Status
A1 45 C	noted in section 3 of document N2903 from meeting 46).	
AI-45-6	IRG Rapporteur (Dr. Qin Lu)	
	To take note of and act upon the following items.	
e.	M45.33 (CJK Ideograph source visual reference information): WG2 accepts the proposal to add visual reference information requested in document N2830, for those CJK unified ideographs that do not currently have it, similar to the information in the standard for the 'CJK unified ideographs' block. Further, WG2 instructs the IRG to prepare an assessment report including a proposed implementation plan for discussion at the next WG2 meeting in January 2005. M45 – In progress	

## 15.4 New Action items from meeting 46, 2005-01-24/28, Xiamen, Fujian Province, China

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
AI-46-1	Meeting Secretary - Dr. V.S. UMAmaheswaran	
C.	To finalize the document N2904 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N2904.
d.	To finalize the document N2903 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N2903.
AI-46-2	Convener - Mr. Mike Ksar	
b.	To add the following carried forward scripts to next meeting agenda:  a. Ol Chiki script – document N2505  b. Manichaean script – document N2544  c. Saurashtra script – documents N2607, N2619  d. Avestan and Pahlavi – document N2556  e. Dictionary Symbols – document N2655  f. Myanmar Additions – documents N2768, N2827  g. Invisible Letter – document N2822  h. Palestinian Pointing characters - document N2838  i. Babylonian Pointing characters – document N2759  j. Bantu Phonetic Click characters – document N2790  k. Samaritan Pointing - 12 Hebrew characters – document N2758  l. Dominoe Tiles and other Game symbols – N2760	
AI-46-3	Editor of ISO/IEC 10646: Mr. Michel Suignard with assistance from contributing editors	
	To prepare the appropriate AM, DAM or PDAM 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:	Completed. See document N2936 on FPDAM2

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
		(SC2 N3788) and SC2 N3790 on FDAM1. (See also N2937).
V.	M46.1 (Defect in Annex E.2): With reference to the potential defect in Annex E.2 (reported in document N2877), WG2 instructs its editor to:  a. Remove the current list of characters listed in the annex, and, b. Provide suitable explanatory text explaining the precautions to be taken regarding mirroring of glyphs when a script may be rendered in either left to right or right to left direction, for inclusion in Amendment 1 to ISO/IEC 10646: 2003.	
W.	M46.2 (Defect in glyph for Y with Hook): With reference to the defect in the glyph for 01B3 LATIN CAPITAL LETTER Y WITH HOOK (reported in document N2859), WG2 instructs the editor to change the glyph to Y with the hook on the right, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.	
x.	M46.3 (Discrepancy between names and glyphs for some arrows): With reference to the discrepancy between glyphs and character names for four arrows (reported in document N2868), WG2 instructs its editor to correct the glyphs by swapping the glyph for 2B00 with the glyph for 2B01, and the glyph for 2B08 with the glyph for 2B09, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.	
y.	M46.4 (Defect in glyphs for four KangXi radicals): With reference to the defect on four KangXi radicals (reported in documents N2882 and N2659), WG2 instructs the editor to use the appropriate font in preparing the charts showing the glyphs for U+2F35, U+2F61, U+2F71 and U+2FCD, and include this correction in Amendment 1 to ISO/IEC 10646: 2003.	
Z.	<ul> <li>M46.5 (Tifinagh – changes in Amendment 1): With reference to document N2862 and ballot comments in document N2879 from several national bodies on Tifinagh script, WG2 resolves to make the following changes: <ul> <li>a. 2D34 is renamed from TIFINAGH LETTER YAGGH to TIFINAGH LETTER YAGHH</li> <li>b. 2D35 is renamed from TIFINAGH LETTER KABYLE YAJ to TIFINAGH LETTER BERBER ACADEMY YAJ</li> <li>c. 2D3F is renamed from TIFINAGH LETTER YAKKH to TIFINAGH LETTER YAKHH</li> <li>d. 2D41 is renamed from TIFINAGH LETTER KABYLE YAH to TIFINAGH LETTER BERBER ACADEMY YAH</li> <li>e. 2D46 TIFINAGH LETTER TUAREG YAKH – remove parenthetical annotation f. 2D53 add annotation to read TIFINAGH LETTER YU (Tuareg yaw)</li> <li>g. 2D58 TIFINAGH LETTER AYER YAGH (Adrar yaj) – remove 'staggered five-points' in the parenthetical annotation</li> <li>h. 2D6F is renamed from TIFINAGH MODIFIER LETTER LABIALIZATION to TIFINAGH MODIFIER LETTER LABIALIZATION MARK (tamatart).</li> </ul> </li> </ul>	
i.	M46.6 (Other changes in Amendment 1): In response to FPDAM1 ballot responses in document N2881 WG2 resolves to make the following changes:  a. 19DE NEW TAI LUE SIGN LE is renamed to NEW TAI LUE SIGN LAE 19DF NEW TAI LUE SIGN LEW is renamed to NEW TAI LUE SIGN LAEV  b. HEBREW POINT QAMATS QATAN is moved from 05BA to 05C7  c. Accept a new format for documenting collections to permit inclusion of additional usage information in the IICORE collection; the principle and procedures document is to be updated to capture this additional format for collections  d. CJK BASIC STROKES is changed to CJK STROKES in the block name, collection name and character names associated with code positions 31C0 to 31CF; along with:  i. 31C3 CJK BASIC STROKE XG-2 is renamed to CJK STROKE BXG  ii. 31C4 CJK BASIC STROKE SZ is renamed to CJK STROKE SW	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
	iii. 31C9 CJK BASIC STROKE SZZG is changed to CJK STROKE SZWG	
	e. The set of HKSCS-2004 source references is expanded to 123 from the current 42 in line with the Approval HKSCS 2004 (which is in the process of being published) set from HKSAR  f. Missing source reference information for JIS X 0213-2000 / 2004 will be added to complete the set  g. 1015A GREEK ACROPHONIC HERMIONE ONE is renamed to GREEK	
	ACROPHONIC HERMIONIAN ONE.	
j.	M46.7 (Annex P text for HKSCS characters): WG2 accepts in principle the proposed clarification text regarding HKSCS CJK Ideographs 9FB9, 9FBA and 9FBB in document N2925, and instructs its editor to prepare and include appropriate text in Annex P. WG2 further accepts to include this text in Amendment 1 to ISO/IEC 10646: 2003.	
k.	M46.8 (Disposition of FPDAM1 ballot comments): With reference to the FPDAM1 ballot comments in document N2879 and their proposed dispositions in document N2881, and based on the discussion at the meeting, WG2 accepts the final disposition of comments in document N2926, which includes the responses to ballot comments having corresponding additional documentation or defect reports, some of which are captured in individual resolutions in this document.	
l.	M46.9 (Progression of Amendment 1): WG2 instructs its editor to prepare the FDAM text based on the disposition of comments in document N2926 and other resolutions from this meeting for additional text for inclusion in Amendment 1 to ISO/IEC 10646: 2003, and forward to SC2 secretariat for FDAM processing, with unchanged schedule. (Note: the total number of characters in FDAM1 remains unchanged from FPDAM1 at 1273.)	
m.	M46.10 (Characters in identifiers): WG2 accepts the proposal for an informative annex on 'Characters in Identifiers' in document N2895, and instructs its editor to prepare appropriate text and include it in Amendment 2 to ISO/IEC 10646: 2003. Further, SC2 secretariat is requested to forward document N2895 to SC22.	
n.	M46.11 (Block names and Annex L revision): WG2 accepts the recommendations in document N2919 on adding rules for naming of blocks, collections and named UCS Sequence Identifiers in Annex L and changing the status of Annex L to be Normative. WG2 further instructs its editor to prepare appropriate revised text, including separating the informative and normative portions, for inclusion in Amendment 2 to ISO/IEC 10646: 2003.	
0.	M46.12 (17-plane restriction): WG2 accepts in principle the recommendation to permanently reserve all code positions beyond Plane 16 from document N2920 and instructs its editor to prepare appropriate text and include it in Amendment 2 to ISO/IEC 10646: 2003.	
p.	M46.13 (Named USIs): WG2 accepts in principle the recommendations in document N2921 for a new normative clause and relevant naming rules for named UCS Sequence Identifiers, and instructs its editor to prepare appropriate text and a set of named UCS Sequence Identifiers that have been accepted to date, and include these in Amendment 2 to ISO/IEC 10646: 2003.	
q.	M46.14 (Phags-pa – changes): With reference to changes requested to Phags-pa encoding in PDAM 2 ballot comments from China in document N2876, and the details given in documents N2869, N2870, N2871 and N2912, WG2 accepts the ad hoc group recommendations in document N2922. The following are the main changes:  e. The following four new characters are added: PHAGS-PA LETTER ALTERNATE YA PHAGS-PA LETTER VOICELESS SHA PHAGS-PA LETTER VOICED HA PHAGS-PA LETTER ASPIRATED FA, extending the range of assigned code positions to A877.  f. U+A85A PHAGS-PA LETTER —A is renamed to PHAGS-PA LETTER SMALL A g. The entire range A840 to A877 including the above additions is reordered based on ordering in document N2870; the new order, glyphs	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
	and names are shown in the consolidated charts in document N2924.	
	h. Add the following six variation-selector-sequences:	
	<a856, fe00=""> Phags-pa letter reversed shaping small a</a856,>	
	<a85c, fe00=""> Phags-pa letter reversed shaping ha</a85c,>	
	<a85e, fe00=""> Phags-pa letter reversed shaping i</a85e,>	
	<a85f, fe00=""> Phags-pa letter reversed shaping u</a85f,>	
	<a860, fe00=""> Phags-pa letter reversed shaping e</a860,>	
	<a868, fe00=""> Phags-pa letter reversed shaping subjoined ya</a868,>	
	(Note: these variation-selector sequences do not select absolute glyph forms;	
	rather, they select a form that is reversed from the normal form predicted by the	
	preceding letter.)	
r.	M46.15 (Additional Kannada characters): WG2 resolves to add the following four	
	Kannada characters to the Kannada block to Amendment 2 to ISO/IEC 10646: 2003,	
	with their glyphs from document N2860:	
	0CE2 KANNADA VOWEL SIGN VOCALIC L	
	0CE3 KANNADA VOWEL SIGN VOCALIC LL	
	0CF1 KANNADA SIGN JIHVAMULIYA	
	0CF2 KANNADA SIGN UPADHMANIYA	
S.	M46.16 (Mathematical horizontal brackets): WG2 resolves to add the following five	
	Miscellaneous Technical Symbols to Amendment 2 to ISO/IEC 10646: 2003, with their	
	glyphs from document N2842:	
	23DC TOP PARENTHESIS (for mathematical formulas)	
	23DD BOTTOM PARENTHESIS (for mathematical formulas)	
	23DE TOP CURLY BRACKET (for mathematical formulas)	
	23DF BOTTOM CURLY BRACKET (for mathematical formulas) 23E0 TOP TORTOISE SHELL BRACKET (for mathematical formulas)	
t.	M46.17 (Counting Rod Numerals): WG2 resolves to create a new block 1D360-1D37F	
ι.	named 'Counting Rod Numerals' and populate it with the following eighteen Counting	
	Rod Numerals, with their glyphs from document N2816, and include it in Amendment 2	
	to ISO/IEC 10646: 2003:	
	1D360 COUNTING ROD UNIT DIGIT ONE	
	1D361 COUNTING ROD UNIT DIGIT TWO	
	1D362 COUNTING ROD UNIT DIGIT THREE	
	1D363 COUNTING ROD UNIT DIGIT FOUR	
	1D364 COUNTING ROD UNIT DIGIT FIVE	
	1D365 COUNTING ROD UNIT DIGIT SIX	
	1D366 COUNTING ROD UNIT DIGIT SEVEN	
	1D367 COUNTING ROD UNIT DIGIT EIGHT	
	1D368 COUNTING ROD UNIT DIGIT NINE	
	1D369 COUNTING ROD TENS DIGIT ONE	
	1D36A COUNTING ROD TENS DIGIT TWO	
	1D36B COUNTING ROD TENS DIGIT THREE	
	1D36C COUNTING ROD TENS DIGIT FOUR	
	1D36D COUNTING ROD TENS DIGIT FIVE	
	1D36E COUNTING ROD TENS DIGIT SIX	
	1D36F COUNTING ROD TENS DIGIT SEVEN	
	1D370 COUNTING ROD TENS DIGIT EIGHT	
	1D371 COUNTING ROD TENS DIGIT NINE	
u.	M46.18 (26 additional Mathematical characters): WG2 resolves to add the following	
	twenty-six mathematical characters with their glyphs from document N2874, with	
	assignments in different blocks, in Amendment 2 to ISO/IEC 10646: 2003:	
	4 in Combining Diacritical Marks for Symbols:	
	20EC COMBINING RIGHTWARDS HARPOON WITH BARB	
	DOWNWARDS	
	20ED COMBINING LEFTWARDS HARPOON WITH BARB	
	DOWNWARDS	
	20EE COMBINING LEFT ARROW BELOW	
	20EF COMBINING RIGHT ARROW BELOW	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
	(these are combining characters)	
	6 in Miscellaneous Technical:	
	23E1 ELECTRICAL INTERSECTION	
	23E2 WHITE TRAPEZIUM	
	23E3 BENZENE RING WITH CIRCLE	
	23E4 STRAIGHTNESS	
	23E5 FLATNESS	
	23E6 AC CURRENT	
	1 in Miscellaneous Symbols:	
	26B2 NEUTER	
	3 in Miscellaneous Mathematical Symbols-A	
	27C7 OR WITH DOT INSIDE	
	27C8 REVERSE SOLIDUS PRECEDING SUBSET	
	27C9 SUPERSET PRECEDING SOLIDUS	
	10 in Miscellaneous Symbols and Arrows:	
	2B14 SQUARE WITH UPPER RIGHT DIAGONAL HALF BLACK	
	2B15 SQUARE WITH LOWER LEFT DIAGONAL HALF BLACK	
	2B16 DIAMOND WITH LEFT HALF BLACK	
	2B17 DIAMOND WITH RIGHT HALF BLACK	
	2B18 DIAMOND WITH TOP HALF BLACK	
	2B19 DIAMOND WITH BOTTOM HALF BLACK	
	2B20 WHITE PENTAGON	
	2B21 WHITE HEXAGON	
	2B22 BLACK HEXAGON	
	2B23 HORIZONTAL BLACK HEXAGON	
	and,	
	2 in Mathematical Alphanumeric Symbols:	
	1D7CA MATHEMATICAL BOLD CAPITAL DIGAMMA	
	1D7CB MATHEMATICAL BOLD SMALL DIGAMMA	
v.	M46.19 (Latin phonetic and orthographic characters): With reference to document	
	N2906, WG2 resolves to add to Amendment 2 to ISO/IEC 10646: 2003:	
	a. the following14 Latin characters in the Latin Extended-B block, with their	
	glyphs as shown on page 3, right hand column in document N2906:	
	0242 LATIN CAPITAL LETTER B WITH STROKE	
	0243 LATIN CAPITAL LETTER U BAR	
	0244 LATIN CAPITAL LETTER TURNED V	
	0245 LATIN CAPITAL LETTER E WITH STROKE	
	0246 LATIN SMALL LETTER E WITH STROKE	
	0247 LATIN CAPITAL LETTER J WITH STROKE	
	0248 LATIN SMALL LETTER J WITH STROKE	
	0249 LATIN CAPITAL LETTER SMALL Q WITH HOOK TAIL	
	024A LATIN SMALL LETTER Q WITH HOOK TAIL	
	024B LATIN CAPITAL LETTER R WITH STROKE	
	024C LATIN SMALL LETTER R WITH STROKE	
	024D LATIN CAPITAL LETTER Y WITH STROKE	
	024E LATIN SMALL LETTER Y WITH STROKE	
	024F LATIN SMALL LETTER V WITH CURL	
	(The above makes the Latin Extended-B collection a 'fixed collection'),	
	and,	
	Supplement block, with their glyphs as shown on page 3, left hand column, in	
	document N2906:	
	1DC4 COMBINING MACRON-ACUTE	
	1DC5 COMBINING GRAVE-MACRON	
	1DC6 COMBINING MACRON-GRAVE	
	1DC7 COMBINING ACUTE-MACRON	
	1DC8 COMBINING GRAVE-ACUTE-GRAVE	
	1DC9 COMBINING ACUTE-GRAVE-ACUTE	
	I IDOS COMBININO NOCIL CIVIVE NOCIL	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
w.	M46.20 (More Latin phonetic and orthographic characters): WG2 resolves to create a new Latin Extended-C block and corresponding collection at the range 2C60-2C7F and populate it with the following five characters as proposed in document N2847, in	
	Amendment 2 to ISO/IEC 10646: 2003:	
	2C60 LATIN CAPITAL LETTER L WITH DOUBLE BAR	
	2C61 LATIN SMALL LETTER L WITH DOUBLE BAR	
	2C62 LATIN CAPITAL LETTER L WITH MIDDLE TILDE	
	2C63 LATIN CAPITAL LETTER P WITH STROKE 2C64 LATIN CAPITAL LETTER R WITH TAIL	
X.	M46.21 (Modifier Tone Letters): WG2 resolves to add the following four Modifier Tone	
	Letters with their glyphs from document N2883, in Amendment 2:	
	A717 MODIFIER LETTER DOT VERTICAL BAR	
	A718 MODIFIER LETTER DOT SLASH	
	A719 MODIFIER LETTER DOT HORIZONTAL BAR A71A MODIFIER LETTER LOWER RIGHT CORNER ANGLE	
	(these characters are NOT combining)	
у.	M46.22 (Miscellaneous new characters for Amendment 2): WG2 resolves to add the	
	following new characters in Amendment 2 to ISO/IEC 10646: 2003:  c. 05BA HEBREW POINT HOLAM HASER FOR VAV with glyph from document	
	N2840, and	
	d. 214D AKTIESELSKAB with its glyph similar to glyph number 3 for A/S on	
Z.	page 3 in document N2889.  M46.23 (Balinese script): WG2 resolves to encode the Balinese script proposed in	
2.	document N2908 in a new block 1B00 – 1B7F named 'Balinese', and populate it with	
	121 characters (some of which are combining) with names, glyphs and code position	
	assignments as shown on pages 10 and 11 in document N2908. Further WG2 accepts	
	to include it in Amendment 2 to ISO/IEC 10646: 2003.	
aa.	M46.24 (Disposition of PDAM2 ballot comments): With reference to the PDAM2 ballot comments in document N2876 and their proposed dispositions in document N2880,	
	and based on the discussion at the meeting, WG2 accepts the final disposition of	
	comments in document N2927, which includes the responses to ballot comments	
	having corresponding proposals for new scripts or characters, several of which are	
<b>.</b>	captured in individual resolutions in this document.	
bb.	M46.25 (Progression of Amendment 2): WG2 instructs its editor to prepare the FPDAM2 text based on the disposition of comments in document N2927 and the	
	various resolutions from this meeting for additional text, characters or scripts for	
	inclusion in Amendment 2 to ISO/IEC 10646: 2003, and forward to SC2 secretariat for	
	FPDAM processing, with unchanged schedule. (Note: 210 new characters are added,	
	none removed, raising the total from 1125 to 1335 characters in Amendment 2.)	202
CC.	Along with the co-editors, work with relevant experts and get consistent fonts for Arabic and Arabic Supplement code charts.	???
dd.	With reference to discussion on US FPDAM1 ballot comment T.10, add text to clarify	???
	what is included as CJK Source Information in the standard.	
AI-46-4		
	To take note of and act upon the following items.	
f.	Reflect the new format used for IICORE collections in Amendment 1 text.	
g. Al-46-5	Align Annex L copy in P&P document with the updates to Annex L in the standard.  Ad hoc on Roadmap (Mr. Michael Everson)	
b.	Change the block name from CJK Basic Strokes to CJK Strokes.	
C.	Update the roadmap reflecting the proceedings of meeting M46.	
AI-46-6	IRG Rapporteur (Dr. Lu Qin)	
	To take note of and act upon the following items.	
f.	M46.31 (New target for CJK Extension C1 work): With reference to item 2 in document	
	N2917, WG2 approves the extension of the target completion date for CJK Extension	
g.	C1 to the end of 2005.  To take note of the specific shapes required for the characters , which are source	
უ.	references from JIS standards, per comment J1 in FPDAM1 ballot response from	
	Japan in document N2879, when the next edition of the standard is to be published.	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
h.	To review and feedback on document N2864 - Proposal to add a block of CJK Basic Strokes to the UCS; Thomas Bishop and Richard Cook – individual contribution; 2004-10-25, in view of the text accepted for FDAM1.	
i.	M46.33 (Future meetings): WG 2 meetings:  Meeting 47 – 2005-10-10/14 (to be confirmed), ETSI, Sophia Antipolis, France (Host: ECMA)  Meeting 48 – Spring 2006, Canada (Tentative), backup US; along with SC2 plenary Meeting 49 – Fall 2006, Asia (seeking Host) Meeting 50 – Spring 2007, Europe (seeking Host)	
	IRG meeting: IRG #24: Japan, 2005-05-23/27 IRG #25: Mountain View, CA, USA (Unicode Consortium), 2005-12-12/16 (tentative)	
AI-46-7		
b.	To take note of M46.32 (Ballot comment from Israel): With reference to the input and request to delete all Hebrew related proposals from Amendment 1 from Israel, WG2 appreciates the input but cannot accommodate the request for the following reasons:  • Although the Hebrew additions were submitted in several documents, the bulk of the proposal is in Amendment 1 with a minor addition in Amendment 2. So the changes are processed in a manner which is already as less disruptive as possible.  • The additions are not invalidating existing data.  • The Hebrew block is not just covering the need of the Modern Hebrew community, but also the need of the Biblical Hebrew community, which has expressed a strong interest in getting these additions and is awaiting the adoption of these characters. Because the additions do not invalidate Modern Hebrew there is no need to postpone them.  The ISO amendment process is giving all the interested parties, including Israel, sufficient time to provide feedback; therefore it does not seem necessary to postpone further the additions of these characters.  Is invited to review and feedback on the following WG2 proposals on Hebrew characters:  2838 Proposal to add Palestinian Pointing to ISO/IEC 10646; Elaine Keown; 2004-07-20  Proposal to add Babylonian Pointing to ISO/IEC 10646; Elaine Keown;	
	2004-07-17 2758 Proposal for an additional 12 Hebrew characters; Elaine Keown -	
A1 40 C	individual expert; 2004-05-12	
Al-46-8 c.	Chinese national body (Messrs, Cheng Zhuang, Woushoeur Silamu)  M46.30 (Additional characters for Uighur, Kazakh and Kirghiz):	
C.	With reference to proposed additions to the Arabic script in document N2897 to support Uighur, Kazakh and Kirghiz, WG2 invites China to take into account the ad hoc discussions during meeting 46, and provide the requested clarification on rendering rules.	
AI-46-9		
b.	Is invited to get additional testimonial from the Indonesian national body in support of the Balinese Script proposal.	
AI-46-10		
i.	To take note of and act upon the following items.  M46.26 (Hangul transliteration rules): WG2 notes the input on Hangul transliteration rules from ISO TR11941: 1996 in document N2918, which have been used to arrive at the names for Hangul characters in ISO/IEC 10646: 2003 and invites all national bodies and liaison organizations to take note.	
j.	M46.29 (Myanmar extensions): With reference to proposed additions to Myanmar script in documents N2768 and N2827, WG2 invites national bodies and liaison organizations to provide feedback to the authors by 2005-07-31, and invites Myanmar national body to prepare revised proposals based on input received at meeting 46 and	

Item	Assigned to / action (Reference resolutions in document N2904, and unconfirmed minutes in document N2903 for meeting 46 - this document you are reading)	Status
	any other feedback.	
k.	To review and feedback on document N2864 - Proposal to add a block of CJK Basic Strokes to the UCS; Thomas Bishop and Richard Cook – individual contribution; 2004-10-25, in view of the text accepted for FDAM1.	
I.	M46.33 (Future meetings): WG 2 meetings:  Meeting 47 – 2005-10-10/14 (to be confirmed), ETSI, Sophia Antipolis, France (Host: ECMA)  Meeting 48 – Spring 2006, Canada (Tentative), backup US; along with SC2 plenary Meeting 49 – Fall 2006, Asia (seeking Host) Meeting 50 – Spring 2007, Europe (seeking Host)  IRG meeting: IRG #24: IRG #25: Mountain View, CA, USA (Unicode Consortium), 2005-12- 12/16 (tentative)	
m.	To take note to restrict their ballot comments to the content of the document under ballot. All proposals for new characters or new material for the standard should be made as independent contributions outside the ballot comments. The project editor has the prerogative of ruling such proposals to be 'out of order, as not related to the text under ballot' and ignore them completely.	
n.	To review and feedback on document N2890 - Proposed joint (Unicode, ISO/IEC) font license agreement; Canada; 2005-01-07.	
O.	In addition to the proposals mentioned in the items above, the following proposals have been carried forward. All national bodies and liaison organizations are invited to review and comment on them.  a. Ol Chiki script – document N2505 b. Manichaean script – document N2544 c. Saurashtra script – documents N2607, N2619 d. Avestan and Pahlavi – document N2556 e. Dictionary Symbols – document N2655 f. Invisible Letter – document N2822 g. Palestinian Pointing characters – document N2759 i. Bantu Phonetic Click characters – document N2790 j. Samaritan Pointing - 12 Hebrew characters – document N2758 k. Dominoe Tiles and other Game symbols – N2760	