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 38, Beijing, China, 2000-03-21--24

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 the convener as soon as possible but no later than 2000-08-15.

ACTION ID: ACT

DUE DATE: 2000-08-15

DISTRIBUTION: SC 2/WG 2 members and Liaison organizations

MEDIUM: Paper

NO. OF PAGES: 55 (including cover sheet)

Mike Ksar
Convener – ISO/IEC/JTC 1/SC 2/WG 2
Hewlett-Packard Company
1501 Page Mill Rd., M/S 5 U – L
Palo Alto, CA 94304
U. S. A.

Phone: +1 650 857 8817
Fax (PC):   +1 650 852 8500
Alt. Fax: +1 650 857 4882
e-mail: mike ksar@hp.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 *N2203*
Date: 2000-07-21

Title:	Unconfirmed Minutes of WG 2 meeting 38, Beijing, China 2000-03-21--24
Source:	V.S. Umamaheswaran, Meeting Secretary, Mike Ksar, 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

The meeting was opened at 09:10h. The convener welcomed all the attendees to Beijing and introduced Mr. Chen Zhuang representing the host organization Chinese Electronic Standards Institute (CESI).

Mr. Chen Zhuang, on behalf of CESI, welcomed the delegates to Beijing. General information on the logistics of the meeting was given as a printout for the delegates. The meeting facilities, Internet and computer facilities, and other logistics were explained. A break out room, where the PC and printers are located, is also available. An evening reception is planned for Wednesday at 6pm. An excursion to the Great Wall is planned for Saturday. Ms. Jin Quian should be contacted for secretarial services. Mr. Chen Yunfeng will also assist. 70634, 70625 - are call numbers for getting help after hours.

Mr. Mike Ksar reminded the delegates that all contributions must be given to the convener for getting a document number, before copying etc. Our meetings will be from 9am to 17:30h, with a 45min lunch break, and 15min coffee breaks. The goal is to finish the meeting by Thursday PM and approve the resolutions on Friday morning. All unfinished business will be carried over to the next meeting.

Most of the documents that are on the agenda were posted to the WG2 web site. Hardcopies of several of these documents are made available at this meeting. Mr. Keld Simonsen also made a ZIP file containing all the documents to be discussed at this meeting available. The zip file has the agenda sheet with links to the documents in the zipped file. If we need to access the web site during the meeting we can do so.

An electronic copy and a paper copy should be provided to the convener. The documents can be posted to the web site and it makes the cost of the distribution less. The preferred format for the documents is ".pdf". The convener can accept it also as HTML or MS WORD documents. If there are GLYPH files as part of your document make sure that these are also included in the copy provided to the convener.

1.1   Roll Call

Input document:
N2151   Updated WG2 Distribution List, post meeting 37; Ksar; 2000-03-21
Document N2151 containing the latest distribution list for WG 2 documents was circulated, and the delegates were requested to mark any corrections, and to assist the convener in removing names from the distribution list, and attach / give their business cards to the convener. The following **36** delegates representing **8** national bodies, **2** liaison organizations and **2** guest countries attended the meeting. Messrs. Bruce Paterson, Johan van Wingen, Erkki Kolehmainen, Keld Simonsen and Mark Küster could not attend and have sent in their regrets.

Name	Representing	Affiliation

Name	Representing	Affiliation
Alain La Bonté	Canada	Direction du soutien au déploiement de l'inforoute gouvernmentale, Gouvernement du Québec
V. S. (Uma) Umamaheswaran	Canada, Recording Secretary	IBM Canada
Chen Yunfeng	China	Chinese Electronics Standardization Institute
Chen Zhuang	China	Chinese Electronics Standardization Institute
Jin Zhenrong	China	Yanbian University Computational Linguistic Research Institute
Mileti	China	Working Committee of Minorities' Spoken and Written Languages, Urumqi city, Xinjiang Province
Ms. Wang Xiaoming	China	CCID
Woshur Slamu	China	Xinjiang University
Xi Weining	China	Minority Language Committee of Yunnan Province
Zhang Zhoucai	China, IRG Rapporteur	CCID
Michael Y. Ksar	Convener	Hewlett-Packard Company
Chhit Wornnarith	Guest - Cambodia	Lemon Computer
Mony Sokha Sath	Guest - Cambodia	Cambodia Information Technology Association
Phal Des	Guest - Cambodia	Royal University of Phnom Penh
Jo Chun Hui	Guest - DPR of Korea	Committee for Standardization
Jo Nam Ho	Guest - DPR of Korea	Bureau of Computer Software, Academy of Sciences of DPR of Korea
Jon Chol Yong	Guest - DPR of Korea	Research Institute for Standardization
Kim Myong Gue	Guest - DPR of Korea	Korea Computer Center, Standardization and Information research section
Kim Pong Sam	Guest - DPR of Korea	Research Institute for Standardization
Pak Dong Gi	Guest - DPR of Korea	Committee for Standardization
Michael Everson	Ireland	Everson Gunn Teoranta
Hideki Nakade	Japan	Mistsubishi Research Institute, Inc.
Shuichi Tashiro	Japan	Electrotechnical Laboratory
Shun Ishizaki	Japan	Keio University
Takayuki Sato	Japan	Independent
Tatsuo Kobayashi	Japan	Scholex Co., Ltd.
Yutaka Kataoka	Japan	Otani University, Kyoto
Kyongsok Kim	Korea	Busan National University
Shih-Shyeng Tseng	Liaison - TCA	Computing Center, Academia Sinica
Asmus Freytag	Liaison - The Unicode Consortium	ASMUS, Inc.
Huang Yu Xiong	Singapore	Sybase (Singapore) Pvt. Ltd.
Christopher Fynn	U.K.	Independent
Ken Whistler	U.S.A	Sybase, Inc.
Hideki Hiura	U.S.A.	Sun Microsystems Inc.
Michael Kung	U.S.A.	Microsoft
Michel Suignard	U.S.A.; Editor Part 2	Microsoft

2   Approval of the agenda

Input document:
N2155R   2nd Call and updated preliminary agenda for WG2 meeting # 38 in Beijing – update on hotel booking; Ksar; 2000-03-20

Mr. Mike Ksar briefly introduced the main items on the revised draft agenda in document N2155R. Copies of several documents that were on the agenda were made available during the meeting prior to discussion on the specific agenda item. Some new agenda items were added and new documents to be posted to various agenda items were identified.

The modified agenda was accepted and is reflected in the table of contents below. Some rearrangement of the topics and agenda item numbers has been done while preparing these minutes. Items that were not discussed at all during the meeting do not appear in these minutes. All the discussions have been captured under the appropriate subject titles.

Agenda Item	Page No.

3 Approval of minutes of meeting 37

Input document:
N2103 Draft minutes of meeting 37; Uma/Ksar; 2000-01-05
Dr. V.S. Umamaheswaran introduced document N2103 containing the minutes of WG 2 meeting 37. Mr. Mike Ksar expressed his appreciation to Dr. Umamaheswaran for the preparation of the minutes. The minutes were adopted with the following corrections:

a)	Page 22, Discussion under 7.1.1, item a, first line:	Replace "part 2" with "Part 1".
b)	Page 26, Section 8.3, Disposition:	Delete the following action item (duplicated from the Action Item later) from disposition. "Japan is invited to prepare a proposal for inclusion of the Peso sign."
c)	Page 27, Section 8.4:	Remove the extra ")" at the end of the section title.
d)	Page 28, Section 8.7:	Replace "Phillippine" with "Philippines" in the section title.
e)	Page 28, Section 8.8, second paragraph, second line:	Replace.."of revising the "… with .."of publishing the "…
f)	Page 33, Section 9.1.2, Discussion item b, last line:	Replace "without some boxes"… with "with some boxes"…

4 Review action items from previous meeting

Input document:
N2103 Draft minutes of meeting 37; Uma/Ksar; 2000-01-05
Dr. Umamaheswaran reviewed the various action items from section 16 of document N2103 from meeting 37. The following is the resulting status of the various action items.

4.1 Action items from previous WG 2 meetings (numbers 25 to 32)

All the action items from meeting 25 in Antalya, Turkey, meeting 26 in San Francisco, CA, USA, meeting 27 in Geneva, Switzerland, meeting 28 in Helsinki, Finland, meeting 29 in Tokyo, Japan, meeting 30 in Copenhagen, Denmark, meeting 31 in Québec City, Canada, meeting 32 in Singapore, and meeting 33 in Heraklion, Crete, Greece, have been either completed or dropped.

4.2 Outstanding action items from meeting 34, Redmond, WA, USA

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
AI-34-4	Editor of 10646-2: Mr. Michel Suignard	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	RESOLUTION M34.1 (DTR 15285 Character Glyph Model): ... ... WG 2 further instructs its project editors for ISO/IEC 10646 Part 1 and Part 2 to add TR 15285 as a reference to the next edition of ISO/IEC 10646-1 and to the WD of ISO/IEC 10646-2. M35, M36 and M37 – in progress.	M38: Completed; see document SC2 N3393 - CD 10646-2.
b	RESOLUTION M34.14 (Characters for inclusion in WD of Part 2): WG 2 accepts the following: Plane 14 Characters for Language Tags according to document N1670. ETRUSCAN script in the range Plane 1 0200 to 022F, in accordance with document	M38: Completed; see document SC2 N3393 - CD 10646-2.

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
	N1580. GOTHIC script in the range Plane 1 0230 to 024F, in accordance with document N1581, with the last three characters in that document deleted from the repertoire. WESTERN MUSICAL SYMBOLS in the range Plane 1 D100 to D1FF, starting at D103, in accordance with document N1693. and instructs its project editor to include the above accepted characters in the working draft of 10646-2. M35, M36 and M37 – in progress.	**10646-2.**
c	to update the working draft in document 1717 - accommodating the various comments during meeting 34, and to draft some text for inclusion in Part 1 referring to the architectural statements that need to be included in Part 1. M35, M36 and M37 – in progress.	**M38: Completed; see document SC2 N3393 - CD 10646-2.**
d	RESOLUTION M34.18 (Collection Identifiers in Parts 1 and 2): WG 2 accepts the recommendations of the ad hoc on collection identifiers in document N1726, and instructs the ad hoc on Principles and Procedures to include these in the Principles and Procedures document (N1502R). WG 2 further instructs its project editors to take note of these recommendations for adoption in Parts 1 and Part 2. M35, M36 and M37 – in progress.	**M38: Completed; see document SC2 N3393 - CD 10646-2.**
AI-34-13	**Irish national body (Mr. Michael Everson)**	
h	is invited to create a "Defect Report" on changing the block name IPA Extension to IPA Latin Extension. M35, M36 and M37 – in progress.	**M38: Dropped.**

4.3 *Outstanding action items from meeting 35, London, UK*

Item	Assigned to / action (Reference Meeting 35 Resolutions in document N1904R and Unconfirmed Meeting 35 minutes in document N1903 - with the corrections noted in section 3 of document N2003).	Status
AI-35-11	**Irish national body (Mr. Michael Everson)**	
a	Mr. Michael Everson is invited to take the comments at this meeting (M35) and prepare a revised contribution on Old Hungarian in document N1758. M36 and M37 – in progress.	**M38: In progress.**
AI-35-12	**Japanese national body (Mr. Takayuki Sato)**	
e	to provide additional information on Old Mongolian (document N1855) and its relationship to the Mongolian script proposal in the BMP. M36 and M37 – in progress.	**M38: Completed; see document N2163.**
AI-35-13	**The Unicode Consortium (Dr. Asmus Freytag)**	
a	to provide more information on use of the three proposed symbols -- SQUARE FOOT, SQUARE INCH, and PROPERTY LINE in document N1887. M36 and M37 – in progress.	**M38: Completed; see document N2184.**

4.4 *Outstanding action items from meeting 36, Fukuoka, Japan*

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above),	Status
AI-36-2	**Convener - Mr. Mike Ksar**	
a	per resolution M36.21, to forward document N1984 to SC 2 for forwarding to the Armenian NB in response to their letter dated 1998-11-16 (in document N1981 – SC 2 N3222) (was delegated to Mr. Michel Suignard during the meeting). M37 - in progress.	**M38: Completed.**
h	to get the front page of FDAM-17 and a few sample Han code tables from CJK Extension A for WG 2 distribution; it has been sent for JTC 1 ballot as an SC 2 document SC 2 N3220.	**M38: Dropped.**
AI-36-3	**Editor of 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson**	

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above),	Status
	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:	
l	M36.13 (Technical Corrigendum on Collection ID for BMP of 2nd edition): WG 2 accepts the proposed fixed collection identifier in document N1983 (collection 302) for the fixed repertoire of BMP of the second edition of ISO/IEC 10646-1, and instructs its project editor to prepare a technical corrigendum to Annex A, for inclusion with the Technical Corrigendum in resolution on 'Hangul names list' above. M37 - in progress.	**M38: Completed; see document N2120.**
r	M36.19 (New character bucket M36): With reference to document N1941, WG 2 accepts the proposed Triangular Overlay character, with the new name COMBINING ENCLOSING UPWARD POINTING TRIANGLE, with its proposed shape, and allocates it the code position 20E4 in the BMP. WG 2 instructs its project editor to create a new list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1. M37 - in progress.	**M38: In progress**
s	to work with the IRG editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999. M37 - in progress.	**M38: Completed; see document N2186 (SC2 N3411-2nd edition of 10646-1).**
t	to work with the Unicode liaison (Dr. Asmus Freytag) on the best way to reference the Unicode Standard in the next edition of 10646-1. M37 - in progress.	**M38: Completed; see document N2186 (SC2 N3411-2nd edition of 10646-1).**
AI-36-4	**Editor of 10646-2: Mr. Michel Suignard**	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	M36.26 (2nd WD - 10646 Part 2): WG 2 accepts document N2012R as the second working draft of ISO/IEC 10646-2, including the following allocation / reallocation of code positions: - Etruscan script is moved from 10200..1022F to 10300 …1032F - Gothic script is moved from 10230 … 1024F to 10330 … 1034F - Deseret script is allocated to the range 10400 … 1044F and instructs its project editor to send the document to the SC 2 secretariat for circulating for NB comment by 1999-06-15. M37 - in progress.	**M38: Completed; see document SC2 N3393 - CD10646-2.**
AI-36-5	**IRG (Mr. Zhang Zhoucai, Rapporteur)**	
d	IRG editor is to work with the project editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999. M37 - in progress.	**M38: Completed; see document N2186 (SC2 N3411-2nd edition of 10646-1).**
AI-36-6	**Ad hoc group on principles and procedures (lead - Dr. V.S. Umamaheswaran)**	
a	M36.20 (Criteria for encoding symbols): WG 2 accepts the Criteria for Encoding Symbols proposed in document N1982 in principle and instructs the ad hoc group on Principles and Procedures to incorporate the material from this document into the WG 2 standing document on Principles and Procedures, document N2002. M37 - in progress.	**M38: In progress**

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above),	Status
b	to take note of including IDEOGRAPHIC VARIATION INDICATOR at 303E and remove GENERAL VARIATION MARK from FFFB in the roadmap related work. M37 - in progress.	**M38: In progress**
c	to incorporate agreed upon parts of roadmap documents N1949 BMP and N1955 Plane 1 into the principles and procedures document. M37 - in progress.	**M38: In progress**
AI-36-12	**The Unicode Consortium (Dr. Asmus Freytag)**	
a	to work with the project editor and contributing editor of part 1 on the best way to reference the Unicode Standard in the next edition of 10646-1. M37 - in progress.	**M38: Completed; see document N2186 (SC2 N3411-2nd edition of 10646-1).**

4.5 New action items from meeting 37, Copenhagen, Denmark

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
AI-37-1	**Meeting Secretary - Dr. V.S. UMAmaheswaran**	
a	to finalize the document N2104 containing the adopted meeting resolutions and send it to the convener as soon as possible.	**M38: Completed; see document N2104.**
b	to finalize the document N2103 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	**M38: Completed; see document N2103.**
AI-37-2	**Convener - Mr. Mike Ksar**	
a	act on the resolution M37.17 (Japanese NB concerns to JTC 1 on SC 2 program of work -- "…… Further, WG 2 accepts and endorses the recommendations in contribution N2049 (SC 2 N3341), and instructs its convener to forward document N2049 along with a summary of the recommendations to SC 2 secretariat for forwarding to JTC 1. …. "	**M38: Completed.**
b	to check with ITTF on referencing non-ISO standards in the context of document N2108 (Editor's response to UTC comments on 10646-1 next edition,1999-09-12)	**M38: Completed; see document SC2 N3411.**
c	to check with ITTF to see if editors have sufficient freedom to generate multilingual documents using appropriate fonts (for example, replace <alpha> with its glyph in relation to the next edition of 10646-1.)	**M38: Completed; see document SC2 N3411 (2nd edition of 10646-1).**
d	to act on the resolution .. M37.13 (Feedback to Romania) - "With reference to document N2117 (letter from Romania to SC 2 requesting changes to Annex P of 10646-1), WG 2 instructs its convener to inform SC 2 that the request of Romania cannot be considered at this time, and to invite the Romanian national body to resubmit it for consideration *after* the relevant 8859 part has become a standard."	**M38: Completed.**
e	to act on resolution M37.12 (Feedback to D.P.R of Korea): With reference to the NP in document N2056 to amend the Korean encoding of Amendment 5, WG 2 instructs its convener to inform SC 2 to respond to the Committee for Standardization of the D.P.R. of Korea: - that WG 2 cannot support this NP because any reordering of the standardized Korean Hangul characters would harm existing implementations that are using the standard including its Amendment 5 - that existing standardized character names cannot be changed because character names are normative in the standard and changing them would harm existing users of these standardized character names - invite them to make concrete proposals to add any missing characters	**M38: Completed.**

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
	following the existing WG 2 Procedures and Guidelines document (JTC 1/SC 2/WG 2 N2002), and the conventions for naming of characters in the standard, for future consideration by WG 2, and, - invite them to participate in the IRG regarding any Hanja character requirements they may have, and, draw their attention to FCD-3 of ISO/IEC 14651 -- international ordering under ballot in SC 22.	
f	to act on resolution M37.15 (Liaison request from W3C-i18n-WG): WG 2 accepts the offer to establish the Category C liaison from W3C-i18n-WG in document N2081, and appoints its convener Mr. Mike Ksar as the liaison representative from WG 2. WG 2 requests SC 2 to process his liaison and the nomination.	**M38:Completed.**
g	to assist with resolution M37.14 (Response to report on ETSI meeting) - WG 2 invites Mr. Karl Ivar Larsson to prepare an appropriate response to document N2118 on harmonizing ETSI GSM SMS standard with 10646 in consultation with the convener and forward it to ETSI.	**M38: Completed; see document N2157.**
h	to check with ITTF as to whether the Han charts could be sent separately to ITTF rather than through Mr. Bruce Paterson, to reduce some of the costs	**M38: Completed.**
i	to include all carried-forward items from previous meetings to next meeting agenda, including the following documents from M37: N2048 - Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson, 1999-07-20 N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters, Everson, 1997-07-24 N2044 - On encoding New Tai Lue as proposed by China, Everson, 1997-08-13 N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2, Everson, 1997-09-18 N2098 - Report on the proposal for a Meroitic sign, DIN, Germany, 1999-09-13.	**M38:Completed; see document N2155R.**
AI-37-3	**Editor of 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson**	
	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:	
a	M37.1 (TCOR 3): WG 2 accepts the comment from Korea on draft TCOR-3 and text of Annex xx on Hangul names in document N2077, and instructs its project editor to prepare a disposition of comments and the final text of TCOR-3 and forward it to SC 2 secretariat for further processing.	**M38: Completed; see document N2120.**
b	M37.2 (FPDAM-15 on Kang Xi and CJK radicals): WG 2 accepts the revised disposition of comments on FPDAM-15 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	**M38: Completed; see document N2122.**
c	M37.3 (FPDAM-28 on Ideographic description characters): WG 2 accepts the revised disposition of comments on FPDAM-28 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-28 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	**M38: Completed; see document N2124.**
d	M37.4 (PDAM-29 on Mongolian script): WG 2 accepts the revised disposition of comments on FPDAM-29 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-29 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	**M38: Completed; see document N2126.**
e	M37.5 (PDAM-30 on Additional Latin and other characters): WG 2 accepts the revised disposition of comments on FPDAM-30 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-30 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	**M38: Completed; see document N2128**

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
f	M37.6 (PDAM-31 on Tibetan extensions): WG 2 accepts the revised disposition of comments on FPDAM-31 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-31 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	**M38: Completed; see document N2130**
g	M37.7 (Defect report on Thai character names): With reference to documents N2026, N2035 and N2036, WG 2 accepts its project editor's response to add annotations on the character names as the proper solution, and instructs its editor to process it further.	**M38: Completed; see document N2186 (SC2 N3411).**
h	M37.8 (Next edition of 10646-1): WG 2 instructs its editor to prepare a revised text of document N2005 (textual part of the next edition of 10646-1) incorporating changes arising from: Amendment 15, Amendment 28, Amendment 29, Amendment 30, Amendment 31, Technical Corrigendum 3 (see resolution M37.1 above), Responses to comments on document N2005 in documents N2082 and N2108 (amended by discussion at this meeting), Updated list of sources of characters in Annex M (based on documents N2084 and N2106, and changes to document N2106 based on discussion at this meeting), and, Annotations to Thai character names (see resolution M37.7 above) and forward the revised text to SC 2 secretariat for circulation to national bodies and liaison organizations for information, by 1999-11-01. WG 2 further instructs its project editor to prepare the camera ready copy of the second edition of 10646-1 consisting of the above revised text, the final code charts for non-CJK ideographs from AFII and the final code charts for CJK ideographs from the IRG, and submit it to ITTF by 1999-11-01. (Also note: the word 'combining' should be added to title of B.2 to match the title of B.1.)	**M38: Dropped.**
AI-37-4	**Editor of 10646-2: Mr. Michel Suignard**	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	**M37.9 (Mathematical alphanumeric symbols):** WG 2 accepts the proposal for 991 (subject to verification of this number) new mathematical alphanumeric symbols in document N2086, for inclusion in 10646-2, in the range D400 -- D7FF in Plane 1. The project editor is to select the appropriate character names and block name in the preparation of the text for inclusion in part 2. (note: the editor is to work with proposers of N2086 to refine and consolidate the set of mathematical symbols prior to inclusion in the CD).	**M38: Completed; see document SC2 N3393 - CD 10646-2.**
b	**M37.10 (CJK unified ideograph extension B):** WG 2 accepts the proposal for 42,807 CJK unified ideographs of extension B in document N2105 from the IRG, for encoding in plane 2 of 10646-2, in the range 0100 -- ABFF. The WG 2 notes that the IRG contributing editor has provided the code charts organized as 16 rows by 8 columns. WG 2 further accepts dropping of the word "unified" from the name of plane 2. The project editor is to select the appropriate names for the characters and the block name in the preparation of the text for inclusion in part 2.	**M38: Completed; see document SC2 N3393 - CD 10646-2.**
c	**M37.11 (2nd WD of 10646-2):** WG 2 accepts the disposition of comments in document N2087R on the 2nd WD of 10646-2 and instructs its project editor to prepare the text for CD 10646-2 with assistance from the contributing editors, including the Mathematical Alphanumeric Symbols (see resolution M37.9 above) and the CJK unified ideographs extension B (see resolution M37.10 above) in the CD. WG 2 further instructs its project editor to submit the CD document to SC 2 secretariat for a CD ballot with unchanged target dates.	**M38: Completed; see document SC2 N3393 - CD 10646-2.**
AI-37-5	**IRG (Mr. Zhang Zhoucai, Rapporteur)**	

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
a	to act on resolution M37.16 (CJK compatibility ideographs from JIS): WG 2 requests IRG to review document N2095 on CJK compatibility Ideographs from Japan, and provide their input to WG 2 before meeting 38 of WG 2, in the context of IRG resolution M13.8 in document N2111. (Some of the assumptions are: - there will be other similar compatibility ideographic characters that may be proposed for inclusion in IRG - these characters will be in plane 2, except for small set of exceptional characters that may go into the BMP. Some of the questions to be addressed are: - is there a need for criterion for unification of compatibility characters or should these be separately identified by individual submitters? - What would be estimated size of such a compatibility area, potential starting area - based on IRG experts' input at the IRG.)	M38: Completed; see document N2142.
b	to advise Mr. Mike Ksar as soon as he is ready to print out the Han charts.	M38: Completed.
c	IRG members and UTC members are invited to work together to avoid inconsistency in the CJK charts between Unicode 3.0 and 10646-1: 2000.	M38: Completed.
AI-37-6	**Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)**	
a	with assistance from the Unicode representative, to include a warning in the Principles and Procedures document to proposers of future precomposed characters into the standard on the effect of normalization UTR on the integrity of the characters.	M38: In progress; see document N2176R..
AI-37-7	**The Unicode Consortium (Dr. Asmus Freytag)**	
a	to distribute the Unicode TR20 - Unicode in Markup Languages - when it becomes publicly available to WG 2.	M38: Completed; see document N2177.
b	(together with Mr. Alain La Bonté) to prepare a response to APL SC 22 WG 3 on document N2088, Input from SC 22/WG 3 – APL character repertoire, SC 22/WG 3, 1999-09-07.	M38: Dropped.
c	to provide the editor of 10646-2 fonts for Mathematical alphanumeric symbols for preparing the text for CD 10646-2.	M38: Completed.
d	IRG members and UTC members are invited to work together to avoid inconsistency in the CJK charts between Unicode 3.0 and 10646-1: 2000.	M38: Completed.
e	to distribute UTR 9 - BiDi Algorithm - to WG 2 for information.	M38: Completed; see document N2177.
f	to distribute UTR on normalization when it is publicly available to WG 2, and to prepare a document summarizing the impact of different forms of normalization on future inclusion of precomposed characters in 10646/Unicode.	M38: Completed; see documents N2176R and N2177.
g	to distribute UTR 7 on Alternate Format Characters for information to WG2.	M38: Completed; see document N2177.
AI-37-8	**Irish national body (Mr. Michael Everson)**	
a	to prepare response to document N2039 - Sorting order of Philippino Ng; Philippines and Japan, Sato; 1999-06-23, stating that sorting order alone is not sufficient justification for encoding NG as a single character.	M38: Completed; see document N2165.
b	with reference to document N2080 - Request for two additional collections in ISO/IEC 10646-1, to explore other ways in which the requirement could be met than a collection identifier -- for example, an enumeration of the excluded characters in MES-3A.	M38: Completed.
c	with reference to document N2097 - Germany's feedback on Semitic languages – is invited to discuss the feedback with the commenter from Germany.	M38: Completed; see documents N2133 and N2134.
AI-37-9	**Canada (Mr. Alain La Bonté)**	

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
a	(together with Dr. Asmus Freytag) to prepare a response to APL SC 22/WG 3 on document N2088, Input from SC 22/WG 3 – APL character repertoire, SC 22/WG 3, 1999-09-07.	**M38: Dropped.**
AI-37-10	**Chinese national body (Mr. Chen Zhuang)**	
a	with reference to comments from China in document N2070 on FPDAM-31, Tibetan extension, China is invited to work with the ad hoc group on Tibetan - Mr. Michael Everson, UTC experts etc. -- on the Tibetan email group.	**M38: Completed.**
AI-37-11	**Japanese national body (Mr. Takayuki Sato)**	
a	with reference to document N2040 - Peso sign, Philippines and Japan, 1999-06-10, Japan is invited to prepare a proposal for inclusion of the Philippines Peso sign.	**M38: Completed; see documents N2156 and N2161.**
b	to communicate document N2055 - Comment on Proposal for Nepalese Script, Hugh McG. Ross, 1999-07-29, as feedback to Nepal.	**M38: In progress.**
c	to contact Philippines sources to get feedback on document N1755 - Philippines repertoire, Everson, 1998-05-27.	**M38: Completed; see document (agenda item 7.7)**
d	to provide more information, per discussion at meeting M37 on document N2095, on the compatibility characters -- enlarged glyphs, which characters these were originally unified with in the basic CJK set etc.	**M38: Completed; see documents (agenda item 7.3)**
AI-37-12	**Lithuania (Mr. Vlados Tsumanosis)**	
a	to take the discussion from meeting M37 on document N2075R - Proposal to add Lithuanian Accented Letters to 10646-1,1999-08-15, as feedback to Lithuanian standards body.	**M38: Completed.**
AI-37-13	**Germany (Mr. Marc Küster)**	
a	with reference to Encoding Egyptian Hieroglyphs, is invited to contact the German experts, encourage them to participate and report to them on the WG2 discussion, and to supply the contact names etc. to Messrs. Michael Everson and Rick McGowan.	**M38: In progress.**
AI-37-14	**Sweden (Mr. Karl-Ivar Larsson)**	
a	with reference to resolution M37.14 (Response to report on ETSI meeting), is invited to prepare an appropriate response to document N2118 on harmonizing ETSI GSM SMS standard with 10646 in consultation with the convener and forward it to ETSI.	**M38: Completed; see document N2157.**
AI-37-15	**All national bodies and liaison organizations**	
a	to take note of and act on resolution M37.17 (Japanese NB concerns to JTC 1 on SC 2 program of work) -- ".. .. WG 2 also encourages its experts to get support from their national JTC 1 committees of the recommendations contained in document N2049."	**M38: Noted.**
b	to take note of the following: if delegates / contributors want their documents to be circulated widely they are requested to send their documents in electronic form. If a document contains characters that cannot be supported using Latin based word processors or HTML files, the pdf form is preferred. Otherwise, a Word 6 or HTML document would be acceptable. Word 6 is standardized at the SC level.	**M38: Noted.**
c	to review and feedback on document N2045 - Graphic representation of the Roadmap to the BMP, an update of N1949 to the author, Mr. Michael Everson, with copy to the convener.	**M38: Noted.**
d	(Myanmar script experts in particular) to review document N2033 - Proposal for Extension of Myanmar Coded Set, John Okell and Hugh McG Ross, UK, 1999-06-03, with particular attention to the proposed DOUBLE COMBINING MARKS in the document.	**M38: Noted; To close and create a new action item on Myanmar.**
e	to review document N2048 - Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz -- this document is considered as a request for consideration by WG 2 for future meeting.	**M38: Noted.**
f	to review and feedback on the following proposal documents from Japan: N2092 - Addition of forty eight characters, Japan, 1999-09-13 N2093 - Addition of medical symbols and enclosed numbers, Japan, 1999-09-13 N2094 - Addition of 13 linguistic educational characters, Japan; 1999-09-13 N2095 - Addition of CJK ideographs which are already unified, Japan, 1999-09-13.	**M38: Noted; see document N2187 (agenda item 8.20).**

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
g	to review and feedback on document N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson, 1999-07-20.	**M38: Noted.**
h	(in particular Egyptologists) to review and feedback on document N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters, Everson, 1997-07-24.	**M38: Noted.**
i	to review N2044 - On encoding New Tai Lue as proposed by China, Everson, 1997-08-13, and contact Mr. Michael Everson, to participate in email discussions on the subject.	**M38: Noted.**
j	to review and feedback on documents: N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2, Everson, 1997-09-18; N2098 - Report on the proposal for a Meroitic sign, DIN, Germany, 1999-09-13. (This document contains comments from Dr. Pawel Wolf on Meriotic characters in document N1638. The proposal raises the question whether this needs to be encoding at all.) (Germany and Ireland are encouraged in particular to discuss the subject).	**M38: Noted; see documents N2133 and N2134.**

k	To take note of resolution M37.18 (Future meetings):
	WG 2 confirms the following future meeting schedule:
	    - Meeting 38: 21--24 March 2000, Beijing, China
	    - Meeting 39: 11-15 September 2000, Greece (US as fall back) (along with SC 2 and SC 2/WG 3 meetings)
	    - Meeting 40: March 2001 - US (subject to confirmation)
	WG 2 accepts and confirms the following IRG future meeting schedule:
	    - IRG 14: 6--10 December 1999 in Singapore
	    - IRG 15: 15--19 May 2000 in Taiwan
	    - IRG 16: November 2000 in Korea.
		M38: Noted.

l	invited to visit the Unicode Consortium's web site -- www.unicode.org, for the latest information on the electronic parts of Unicode 3.0, which includes the Unicode database, and the various Unicode Technical Reports that are important for implementing Unicode / 10646.	**M38: Noted.**

5   JTC1 and ITTF matters

5.1   DPR of Korea NP on Korean

Input documents:
N2056   **Proposed amendment to Hangul Repertoire – Synchronize with KPS 9566-97; Committee for Standardization of the D.P.R.of Korea; 1999-08-10**
N2103   **Draft minutes of meeting 37; Uma/Ksar; 2000-01-05**
N2167   **Comments on DPRK New Work Item proposal on Korean characters; Kent Karlsson; 2000-03-02**
N2170   **The technical justification of the proposal to amend the Korean character part of ISO/IEC 10646-1 to be proposed by D.P.R. of Korea at 38th meeting of ISO/JIC1/SC2/WG2; D.P.R. of Korea; 2000-02-10**
N2182   **DPRK NP – JTC1 5999 p 1-5, originally submitted as WG2 N2056; JTC1;**
N2193   **South Korea's feedback on DPRK NP on Korean; Gim; 2000-03-19**
Documents from DPR of Korea:
Document N2056 contained the original submission for an NP by DPR of Korea. Document N2170 - as distributed - has wrong glyphs for the characters from document N2056. Revised document N2056 with corrected glyphs was made available at the meeting. The topic was discussed in the previous meeting M36 and document N2103 has the minutes of the discussion and the relevant recommendation from WG2.

Mr. John Chol Yong - DPR of Korea: Our request is towards support of existing DPR of Korea national standards. An ad hoc meeting was held between the South Korea and DPR Korea, and they decided to have the discussion at the WG2. Use of Korean in DPR K and China was the basis. The proposal is to add some special symbols to the standard. Sorting recommendation from WG2 was to use 14651. The benefits of changes to the standard's users will be better if the order in the standard is changed.

Mr. Mike Ksar: You are asking for some additional Jamo characters, some 79 additional Korean characters, and additional ideographs as part of Hanja. You are also asking for character names be

changed and for rearrangement of existing Korean characters in the standard. I would like to repeat some of the principles that WG2 follows -- these are very simple. Once we assign a code location, after Amendment 5, we will keep the characters in the same location. If some characters are not useable, but people can live with them, we leave them alone. Ordering of characters is not within the scope of ISO/IEC 10646. It is in the domain of SC22 WG20 - following the ISO/IEC (DIS)14651 standard. There are implementations of ISO/IEC 10646 which include the Korean / Jamo characters and these use the current ISO/IEC 10646 allocations of these characters, and these should not be impacted.

Feedback from South Korea:
Professor Kim introduced document N2193. This contribution was sent in December. A set of suggestions is made for DPR Korea to provide. That DPR Korea sends the differences between the Romanization tables used in ISO/IEC 10646 compared with those in TS (TR) 11941. An attachment to it shows the use of Hangeul and Korean from approximately 70 years ago.
Discussion:

a) Mr. Michael Everson: We sent a response to JTC1 in response to the ballot from DPR Korea. Our comments were essentially - we cannot rearrange the existing Hangeul characters in the standard. ISO/IEC 14651 allows you to sort these any way you need. We also looked all the characters that you proposed. There were some that you want that are NOT in ISO/IEC 10646 - we would like to get more information on these. Three different countries looked at these and we came up with different numbers for these new sets. We would like to participate with you on these.

b) Dr. Ken Whistler: The US also responded to the DPR Korea request as part of JTC1 ballot. In short, US agrees with WG2 convener, that it is not a good idea to rearrange the existing Korean character allocations. It is very expensive to many of existing implementations in many countries in the IT. The correct thing to do is to rearrange these to suit any particular country's needs using 14651. The second comment - regarding the combining Jamos -- it is unacceptable to rearrange existing ones. We would be interested in knowing more about the additional Jamos needed -- their nature and properties etc. Regarding the addition of symbolic characters, the US also looked at these characters; we believe some of these are already in the standard. The remaining ones we have to examine each of these characters as to their applicability to include in the standard, and we would like to see additional information on these. We cannot agree on the entire set, till we have more information on each of these proposed symbols. Finally, we agree with Prof. Kim, that the term Hangeul has been in usage and in wide usage for some time, and we see no problem in usage of this term for referencing the Korean characters in ISO/IEC 10646.

c) Mr. Takayuki Sato: About the Hangeul and Jamos, we are in agreement with the comments that have been made by others. The Romanization methods, the two of these, cannot be used as alternate names. If there are new Hanja characters, we recommend DPR of Korea, to join the IRG to in creating new extensions. For the existing characters in ISO/IEC 10646, TS 11941 was developed in 1997, after ISO/IEC 10646 was published. The Korean standard can differ from the ISO standard. It is not always necessary to have any country standard, including that of DPR of Korea be the same as the ISO standard. You could propose adding one more column to specify the source for CJK unified ideographs. You can also specify the mapping to ISO/IEC 10646 in the national standard - similar to JIS X 0213. If additional Hanja characters are required you could make it part of CJK extension C.

d) Dr. Asmus Freytag: As you know the Unicode consortium represents the vendor community directly. Even minor adjustment to the standard can have major consequences to implementers. Since the first Unicode standard was published, some 5 or 6 weak characters were moved. These could be fixed at that time. We are still finding bugs with these. However, now, there are a large number of installations using the existing standard and it cannot be changed. We still recognize the needs of the user community -- be able to interchange data within users within a language community worldwide. We did not want special purpose software for Korean usage in different countries. We have separate standards for sorting. Even in Europe, we have the same set of characters and sort differently in different countries. We have to think about not only implementations, but also existing data. One of the communities of users is the Library system. Once we have large amounts of data in ISO/IEC 10646, it is a huge amount of effort to convert the data -- the data does not get upgraded as frequently as the computer systems. The impact of

your proposal would be to have an old standard and a new one. The user community wants to have only one. We are very interested in working with you to ensure that we continue to have only one standard. It would be wise to focus on the new characters to be added to the standard, and to work with the understanding that other Sorting standard be used.

e) Mr. Christopher Fynn: One way to deal with the DPR Korea, would be to add mapping tables to the Unicode set on the web site.

f) Professor Kim: Of the two possibilities for clarifying the sources, the option of having mappings in national standard only will not provide the same information to the users / readers of ISO/IEC 10646.

g) DPR of Korea: We have received your comments and we already know about these. We can respond to the various comments fully, but it will take too long a time.

Mr. Mike Ksar: I encourage all the delegates to have an ad hoc conversation with DPR Korea and others during the break. (After the break.)

h) DPR of Korea: About the name for Hangeul, the term Hangeul is used historically in our country, the term Korean language and Hangeul existed together -- as is shown in the attachment to the document N2193 from Prof. Kim. The term Hangeul is misunderstood to be the characters of South Korea and not of the Korean language. The name Han is in the name of South Korea. This letter Han brings confusion in the life of our people. When these terms are used simultaneously it causes confusion. If we cannot change the name of the character, can we add the term Korean in front of Hangeul?

i) Mr. Michael Everson: In the English language the term Hangeul is used for the Korean script. We acknowledge that there are many names used for Korean in DPRK and South Korea. All we need to do is to add an explanatory note in the standard about the names of the scripts.

j) Mr. Mike Ksar: You need to understand what we can and what we cannot change. We cannot change character names and we cannot reorder characters. These are the principles in the standard - these are NORMATIVE aspects of the standard.

   i) There are certain things we can do and certain things we cannot do in this committee. The proposal from DPRK contains 5 elements: 8 additional Jamos, 79 additional characters, and xxx Hanja characters, changing the names and changing the order. Of these we can consider - provided you submit proposals following the process we use -- the additional characters. When you make proposal, you use the proposal summary form, ensure that a character is not already encoded. As Mr. Takayuki Sato suggested, I would invite you to participate in the IRG to ensure that Hanja characters are considered and whether they are not already unified. The next IRG meeting is from 19--23 June 2000, in Taipei. Mr. Zhang Zhoucai is the rapporteur for the IRG. We need you to be present there when these characters are discussed. The things we cannot do, is changing the names. The names are Normative. The term Hangeul is part of the name already. We may be able to add some explanatory informative note to indicate for example that Hangeul and Korean can be interchangeably used. As far as reordering of the characters it cannot be done in ISO/IEC 10646. The way to collate the way you need is to use ISO/IEC 14651. Collation itself is not a consideration in ISO/IEC 10646. The encoding of these characters in ISO/IEC 10646 will not be changed. ISO/IEC 14651 is not an encoding standard - the only encoding standard is ISO/IEC 10646. I want to encourage you to continue to meet with other delegates and exchange views.

   ii) We received a message from the SC2 secretariat, regarding the JTC1 NP on DPR Korean proposal JTC1 N5999 - Amendment to ISO/IEC 10646 regarding Korean characters. According to the ballot responses -- this DPRK proposal has failed the criterion required for the NP. The ballot results will be distributed for information of the delegates. Based on the ballot response, even though the ballot failed, I invite you to come back to this committee for proposals to add new characters following the procedures we use. There are other experts from Korea and other national bodies in this committee who can assist you in this process. I can also place you on the WG2 distribution for future documents. There is also the wg2 web site that you can access.

> **Relevant Resolution:**
>
> **M38.1 (Feedback to DPR of Korea):** **Unanimous**
>
> With reference to the document N2193 (and other related ones), WG2 invites the Democratic People's Republic of Korea to provide sufficient input for review and further additions to the existing Korean character repertoire in ISO/IEC 10646.
>
> Specifically, WG2 invites DPR of Korea to submit proposals for their additional characters -- 8 Jamos, 79 symbols and any Hanja characters not already encoded in the CJK unified or compatibility ideographs sets in 10646-1: 2000 or in CD 10646-2, for further consideration by WG2, keeping in mind the following principles:
> - Existing characters in the standard cannot be reassigned other code positions.
> - Existing character names in the standard cannot be changed. Informative clarifying text regarding usage of names of scripts can be considered.
> - No duplicate characters are added if they can be unified with existing characters.
> - All new character proposals should be submitted following the guidelines in the WG2 Principles and Procedures document (SC2 /WG2 N2002) and the conventions for naming of characters in the standard.
>
> DPR of Korea is further encouraged to participate in the IRG regarding their Hanja character requirements for possible inclusion as an extension to CJK.

5.2 *Announcements/publications*

Input documents:

N2157   **ISO/IEC JTC 1/SC 2 information to ETSI/SMG4 on character coding; Karl Ivar Larsson; 1999-11-09**
N2172   **ANex G - .txt format ; (informative); Alphabetically sorted list of character names; Editor (Keld?); 2000-02-25**
N2178   **Resolutions of JTC 1 Special Group on Strategic Planning Meeting; JTC1; 2000-03-08**
N2180   **Resolution 26 of the JTC 1 Seoul Plenary Meeting (JTC 1 5983) and Draft Agenda for the ISO/IEC JTC 1 SWG on Development of a Business Plan for Standards Availability (JTC 1 N 6041); JTC1; 2000-03-07**
N2186   **Second Ed. of ISO/IEC 10646-1(to incorporate all Amendments and Corrigenda) - SC2 posting of files for 10646-1:2000 SC2 N3411; SC2 Secretariat; 2000-03-12**

Document N2157 is a liaison statement from SC2 to ETSI/SMG4. Awaiting feedback from ETSI on how to proceed -- only for information to WG2 delegates.

Document N2172 - is a .txt file containing the list of character names from Annex G of ISO/IEC 10646-1: 2000. Only the first two pages are distributed in hardcopy. Full text is available online from the WG2 web site -- only for information to WG2 delegates.

Document N2178 contains the resolutions from JTC1 SG on Strategic Planning, Oslo, Norway, 2000-02-22--24. -- only for information to WG2 delegates.

Discussion:
a) Mr. Mike Ksar highlighted some items as they affect the working of WG2.
b) O-members can participate in working groups -- this has been the current practice of WG2.
c) NP Ballots are now conducted at the SC level instead of JTC1 level - it is positive from WG2 progress of work items.
d) Dr. Ken Whistler: With reference to resolution 8, on Project Management Tool, Note that SC2 has some elaborate document preparation and documentation needs and the standard project management tools may not be able to support all these.
e) Mr. Mike Ksar: There is no problem with regard to the Project management tools. However, the collaborative document development area we need to understand the issues. As long as the guidelines are the formats of the document for posting to the web site there may not be a problem.
f) Dr. Umamaheswaran: We should send in our requirement to SC2.
g) Dr. Asmus Freytag: We may have to take a proactive stand. We should up front notify SC2 and to JTC1 on the special requirements from WG2. Our needs are to be able display and prepare documents containing shapes of characters that are NOT yet in any standard or tool that may be available. NB delegates can also alert their JTC1 counterparts.

> **Relevant resolution:**

M38.18 (Feedback to JTC 1 SG on Strategic Planning):   Unanimous
With reference to the Collaborative Tools mentioned in resolution 8 on Project Management Tool, in document N2178, WG2 instructs its convener to communicate through SC2 to JTC1, about SC2's special requirements of being able to prepare and display documents containing shapes of graphic characters that are not yet in any standard or not yet supported by easily available tools.

Action item: Convener to communicate the relevant resolution above through SC2 to JTC1.

Document N2180 - SWG on Development of a Business Plan for Standards Activity - ***On the Availability of Standards on the Web:***

a) Mr. Mike Ksar: Our request has always been to make our standards available on the web and electronically. Thanks to the Unicode consortium - Dr. Asmus Freytag, Mr. Michel Suignard, Mr. Bruce Paterson, the BSI, Mr. Zhang Zhoucai, and Mr. Mike Ksar -- we have taken special efforts to make sure the standard is delivered in .pdf form to ITTF. Our hope is that the standard is made available on the web - the ITTF community, the users and IT companies, all of whom would like to have online access to this standard. We hope that ISO and IEC Technical Management Board will respect our request.
    The Technical Management Board (TMB) has asked JTC1 to take another look at the issue of business justification and come up with a recommendation. ITTF has electronic copies of our standards. They would like to put it on a CD, and will also be made available on internal web site. We will continue to monitor the status. SC2 has made the copy available on the SC2 web site as .pdf files. A ZIP-ed version is made available.
b) Dr. Umamaheswaran: The French version of ISO/IEC 10646-1: 2000 is also made available. It is also posted to SC2 web site by the secretariat. The JTC1 Business planning meeting is being held this week in New York. See document N2186 - same as SC 2 N3411 - with some annotations from the convener. For Information. It is the announcement of English and French versions of the standard from SC2 web site.
c) Dr. Asmus Freytag: The Hardcopy of Unicode 3.0 is available for purchase. The softcopy of the code charts are available in pdf form on the Unicode web site.
d) Mr. Michael Everson: Availability of standards from SC2 on the same CD-ROM is desirable.
e) Mr. Mike Ksar: It is not in the domain of this WG. NB-s can take forward their views to ITTF.

Action Item: National bodies and liaison organization are encouraged to work with their JTC1 national body contacts towards wider availability of SC2 standards on the web.

5.3   *Ballot results (Amendments 15, 28, 29, 30, 31)*

All these amendments were approved with no text changes. These are all now incorporated in the 2nd edition of ISO/IEC 10646-1. All these documents are available also from SC2 web site.

6   **SC2 matters: FYI**

6.1   *SC2 Program of Work*

Input document:
N2185   SC2 Program of Work; SC2 Secretariat; 2000-03-12
Mr. Mike Ksar: Document N2185 - contains the program of work of SC2 updated as of 12 of March 2000. From WG2 point of view, most (not all) of the amendments are published separately. Some, per WG2 agreement, was to incorporate in the 2nd edition of ISO/IEC 10646-1: 2000 (see document SC2 N3411). ISO/IEC 10646-2 - document SC2 N3393 is at CD stage. There may be changes to the program of work arising out of disposition of comments at this meeti.

6.2   *Submittals to ITTFl*

Discussion:
a) Mr. Michel Suignard: On the submittals to ITTF, we can make the .PDF files completely protected or partially protected. We need some guidance from ITTF as to what level of protection is desired. WG2 can make a recommendation as to what we want.

b) Dr. Asmus Freytag: When we create pdf files for working documents, we should make it unprotected - especially for the text part. When it comes to the code charts, we may have to protect the access to fonts to protect the copyright. One cannot accept NON PRINT protection -- the convener should ensure of these. If the FONTS are not protected, this may not mean that the FONTS are freely available in violation of COPYRIGHT rules for these -- all it means is that the author has not positively stated that the fonts have been made freely available.

c) Mr. Michael Everson: It should always be important to extract the text to be able to quote in our standardization work. The fonts, I can understand the need for protection.

d) Mr. Mike Ksar: Some of the documents that come as .EXE file. I would like to see it as .DOC file or as a .PDF file. As far as the formats of files are concerned, we can add guidelines to principles and procedures document. Printable, Text should be unprotected; the FONTS may be protected due to IPR issues. If the .exe file cannot be viewed or printed etc., then I cannot process these -- a self extracting zipped file -- .EXE file -- can be acceptable. Many of these come from SC2 secretariat. I also receive hand written charts with glyphs etc. I do not mind scanning one or two pages etc. I prefer to have these scanned by the authors, and sent to me in electronic form. I prefer not to receive fax formats either.

e) Mr. Michel Suignard: The .EXE files are sources for viruses -- we should avoid them. Some companies have policies to REJECT .exe files. The unzip programs are available on the web / low cost or even free.

f) Mr. Christopher Fynn: The self-extracting zipped file could be .EXE form.

Action Item: Ad hoc on principles and procedures to take note of the above and add text to the principles and procedures document concerning formats of documents to be submitted to the convener:

Preferences are for Word .DOC format, or printable .PDF formats, with unprotected TEXT portions and possibly copyrighted Font portions. Whereas, files could be ZIP-ed for compressing them, it should be noted that .EXE files may not be accepted in many organizations as part of their Security Policy and self-extracting .EXE files should be avoided.

6.3   Ballot results

There were none to discuss at this meeting.

6.4   References to ISO/IEC 10646, Unicode and Unicode Technical Reports

Input document:
N2177   **Unicode Technical Reports references; Unicode Consortium – Asmus Freytag; 2000-03-08**
Dr. Asmus Freytag: This document N2717 is in response to several action items assigned to me to be able to provide information on several UTR-s. It was not clear to me as to the usefulness of making these available as separate documents or as copies on the WG2 site etc. These are available on the Unicode web site, and the web addresses reflect the Technical Report numbers as can be seen in N2177. Dr. Asmus Freytag went on to describe the different technical reports listed in N2177. There is also another paper regarding the impact due to Normalization on the future submissions to ISO/IEC 10646. A copy of UTR 15 on Normalization will be made available prior to agenda items 8.14 and 8.15 for reference at this meeting. UTR 20 can also be made available to the delegates for comments to take back to UTC. The w3c-i18n- wg is meeting next week in Amsterdam, and the UTC will meet at the end of April.

Discussion:
- a) Mr. Mike Ksar: I know some people like Keld Simonsen would like to have these available on the WG2 web site.
- b) Dr. Asmus Freytag: The electronic version of the UTR-s has the links to the latest versions. In general, we discourage access to old copies. One can reference to the older versions for a specific comments etc., and there is no need to make a separate copy of the document for posting to WG2 site.

6.5 *Proposal to extend ISO/IEC TR 15285 – character-glyph model*

Input documents:
N2148 Proposal: ISO/IEC TR 15285 extension – Character Glyph Model; Takayuki K. Sato Shuichi Tashiro; 2000-01-05
N2198 Proposal to amend TR 15285 – Char Glyph Model; Japan; 2000-03-15
N2199 Requirements for coded elements – proposed anex to TR 15285 – Char Glyph Model; Japan; 2000-03-13
N2206 Proposal to develop new Anex for TR 15285 – Char Glyph Model; Kobayashi, Kataoka, Kuwari; 2000-03-13

Document N2198 is the umbrella paper. It proposes briefly two amendments to ISO/IEC TR 15285. One of these amendments is in document N2199. The other one is in document N2206. Document N2148 is the backup for document N2199.

Mr. Takayuki Sato: Many national bodies of South East Asia have approached Japan indicating that UCS encoding does not work for us. They propose alternate contributions. When one examines their contributions, they create their own tricks to encode their script. It is always a mix of user friendliness and machine friendliness. I had to spend too much time to explain the nuances of UCS encoding to them. I think some guidelines are required. Document N2199 is proposing some additional guidelines. I understand ISO/IEC TR 15285 is only a Character Glyph model. It will be useful if we can have independent guidelines -- to isolate the machine friendly encoding from end-user friendly aspects. The suggestion is to explain that user-friendliness can be attained using input methods isolating the machine encoding from end users.

WG2 experts are requested to review the proposed amendments from this background. Email discussions are also welcome. The complaint from the users is that "you do not understand my culture". There are two specific experts of the subject area from Japan at this meeting - you can meet with them before they leave tomorrow.

Discussion:
- c) Mr. Alain La Bonté: SC35 is working on future keyboards. The documents presented here will be of interest to them also.
- d) Mr. Mike Ksar: I would encourage interested experts to correspond via email, through any fora available for the topic. The current wg2 list cannot be used for such email discussions.
- e) Mr. Michael Everson: We do have ISO/IEC 10646 forum. Not everyone is subscribing to it.

Action item: National bodies and liaison organizations and interested experts are to review the contributions from Japan and feedback to Mr. Takayuki Sato.

7 ISO/IEC CD 10646-2

7.1 *Disposition of ballot comments on CD 10646-2*

Input documents:
SC2/N3393 ISO/IEC CD 10646-2 Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- Part 2: Secondary Multilingual Plane for scripts and symbols, Supplementary Plane for CJK Ideographs, Special Purpose Plane; Text for CD ballot or comment; Project Editor; 199911-24
N2168 Comments on 'Math Alphanumeric' characters for 10646-2; Kent Karlsson; 2000-03-02
N2169 Comments on 'Language Tag' characters for 10646-2, plane 14; Kent Karlsson; 000-03-02
N2179 Irish Comments on SC 2 NSC 2 N 3393, CD 10646-2; Ireland; 2000-03-07
N2181 Summary of Voting/Table of Replies – 10646-2; SC2 Secretariat; 2000-03-02
N2192 Proposed disposition of comments CD 10646-2; Suignard; 2000-03-17

Document N2192 contains the proposed Disposition of Comments, to the ballot responses in SC2/N2181, and others listed above.

Mr. Michel Suignard: The tally of votes is given in document N2181. There are 14 approvals, 5 disapprovals, 2 abstentions, and 15 no responses. We have 66.67 percent YES. I need to know if the

ballot passed if we do not make any changes. I have some general comments to make, before looking at the disposition of comments document N2181. I also missed FIVE characters from the Mathematical Letter Like symbols in the transposition from the WD to CD.

a) Mr. Mike Ksar: For a CD Ballot a simple majority is all we need -- this the response from SC2 secretariat to a query on this subject.

Comments with Approval from Germany:

a) Notation of characters - six-digit form in the running text. *Accepted.*
b) Etruscan - there was also a comment from Mr. Michael Everson. Recommend *acceptance on coverage of scripts.* On the directionality *a comment is to be written to indicate the possibility of writing in either direction*, though scholars preferring to write in LTR. One of the character shapes is shown LTR with a comment to indicate the shape will reverse.
c) Gothic - *Remove Gothic Letter EIS with Diaeresis at 1033A.* The shifting of the rest to remove the vacated position is also requested by Ireland. The character was there - and now Ireland also wants this removed -- due to the Normalization (can be composed) nature. *Accept* the shifting up of positions by one.
d) Mr. Mike Ksar: Remember that a new character can be added if it is NOT constructed using composition.
e) Mr. Michael Everson: We understand that, this character can be COMPOSED.
   i) The Editor cannot accommodate editorial comments that are not accompanied with suggested alternatives. If the editor is provided with better fonts by the next edition, these can be used.
f) Deseret: Germany's comment to remove this script is *not accepted.* It is an artificial script but evidence has been provided under Category 4, for addition.
g) Western Musical Symbols -- *not accepted.* Insufficient information provided for WG2 to decide on the proposed additions to the repertoire at this time. Germany is invited to make a separate contribution giving more details for consideration by WG2.
h) Annex E - a new note will be added related to Western musical symbols.
i) Math Alpha Symbols - technical comments -- *not accepted.* The reason is given. It can also endanger positive ballot by other countries such as US (confirmed by Dr. Ken Whistler).
j) Tag Characters - Editorial --a new note can be added to point to UTR 20, and add a note on the caution about use in Markup languages.
k) Comments on Sources -- Editor welcomes input

Action item: The German NB is invited to provide the list of Sources the Editor to be able to accommodate their comment on Annex F (in Document N2181). Other NB-s who have relevant information are encouraged to submit references to the editor.

Comments with Approval from Greece:

a) Names of characters with Nabla. Not accepted to change to Anadelta.
b) Editorial - shape of glyphs for PI symbols in Table 14/15. We need good fonts from submitters to be able to create PDF file. The process of creating the PDF demands good fonts. The original font for Math Symbols can be improved with better font repairing that had to be done.

Comments with Disapproval from Ireland - (comments are in document N2179):

a) Request for More Scripts to CD. To fill it more -- similar to UK's comment to fill Plane 1 more.
   Discussion:
   i) Mr. Mike Ksar: Some NB-s, for example Ireland and UK, have proposed to add more scripts to Part 2, by populating Plane 1 for example. This could potentially delay the next stage of Part 2, by having to go to another CD ballot.
   ii) Dr. Umamaheswaran: If we decide to add more scripts, we may have to go to a new CD ballot.
   iii) Dr. Ken Whistler: Adding entire scripts without going to another CD stage may cause some problems for US -- I do not have any instructions from the US NB for this. Especially in view of the comments we have seen from Germany, it cannot be assumed that some of these proposals like Shavian, Linear B etc. would be accepted automatically.
   iv) Mr. Michael Everson: We prefer to add more scripts to this CD. We can equally accept proposing finalizing these scripts to be for future work.

v) Mr. Chen Zhuang: For the time being, as far as IRG work is concerned, we can speed up the work according to instructions at this meeting. We would prefer to go FCD without further delay.

vi) Mr. Christopher Fynn: We made the comment that it is not populated enough. If there is some urgency / need for people right away, then we may have to go ahead.

vii) Dr. Ken Whistler: There is no urgency of any kind for scripts on Plane 1 such as Gothic, Linear B etc. In terms of Plane 2, certainly there are communities waiting for them now. Also for the Mathematical Alpha Symbols etc. the user community is waiting. However desirable it may be to maximize the contents of Plane 1, there are some scripts needed as soon as possible.

b) Etruscan Direction - already covered under Germany comment. Accepted.

c) Gothic - Accepted. Similar to Germany comment.

d) Byzantine Musical Symbols - ISO/IEC 10646 does not provide any guidelines on higher-level protocol items. These characters are stacking - not combining in the sense of ISO/IEC 10646 combining sequences. Comments are NOT accepted. Greece has voted Yes on the current content.

Discussion:

i) Mr. Mike Ksar: I have seen an implementation of these characters in 1997. It was mature at that time, and there was a question on whether they should be in the BMP. At this time, we prefer to leave it in the CD, and if other factors come to light by the FCD stage, we have one more chance to fix the problems.

ii) Mr. Michael Everson: Based on some of the ongoing work with Greek NB, there is some possibility that the repertoire may change. There are some problems related to the fonts, the combining properties associated with these characters.

iii) Dr. Asmus Freytag: At this time, we can proceed and by the time FCD comes along, the unknown factors and questions such as those raised by Ireland on Byzantyne Musical Symbols, can be answered.

e) Western Musical Symbols: There are problems identified that need to be addressed and resolved before FCD. There are name changes proposed - based on proper terminology for typesetting. These names came from the Mathematician. We need to verify whether the proposed name changes would be acceptable to them.

Discussion:

i) Dr. Ken Whistler: I am not sure if the user community will have any preferences.

ii) Dr. Asmus Freytag: We have to assume that the user community has been using these names and they would prefer not to change. These name changes may not cause any major problems to the mathematicians. So we can go ahead accepting the name change.

iii) Mr. Mike Ksar: If we accept the name changes from MonoSpace to MonoWidth will your vote change to YES.

iv) Mr. Michael Everson: We are Satisfied that our comments are satisfied if the name changes are accepted. You have already disposed off others as above.

Comments with Disapproval from Singapore:
Discussion:

a) Mr. Michel Suignard: Singapore has stated that there are missing characters. We need the precise list of these characters. The comment claims 60 Han-Zi characters are missing. I need to understand why IRG was not given this input earlier. These characters have to go into IRG for consideration. There may be a problem of timing for the next FCD. The US position is to have Part 2 as soon as possible -- it is scheduled to go to FCD in May 2000. Singapore was given all the opportunity to add to Extension B, and these addition characters were not brought to light. These small number of characters have to be compared with the 40000 + characters in Extension B.

b) Mr. Huang Yu Xiong: I can make a paper copy of the list of missing characters. We reviewed the list of 60 characters and we have found only 31 are missing. Even though the number of characters is small, after further careful checking there are 25 characters needed now instead of 31.

c) Mr. Takayuki Sato: Can these characters go into a future extension of Plane 2?

d) Mr. Zhang Zhoucai: As an exception, we could accept the Singapore proposal. IRG technical editor could include these in the Ext B, and Singapore could be satisfied. I agree that there is a procedure problem. There were some internal problems in Singapore -- and that is why they could not come up with some characters.

e) Mr. Michael Kung: We are concerned that additional characters to Extension B are being proposed. The opinion expressed by Mr. Zhang Zhoucai is his personal opinion. If we set precedence, another NB can come up with more characters in the future and this may cause delay.

f) Mr. Mike Ksar: How important are these characters to have these in Extension B? You have voted NO - without an explanation. To add characters to CJK, the IRG has to ensure that these characters are considered. It takes time and the schedule of Part 2 should not be impacted. If you can agree that these characters can be added in a future CJK extension, then we can proceed. I welcome the IRG convener's offer -- however, it is important the IRG experts have all to review the proposed additional characters in the standard. If these characters can wait to extension C, the suggestion to Singapore is to submit these new characters for IRG consideration and approval. The disposition to your comment will be to invite Singapore to submit their new characters to the IRG for consideration at the next meeting.

g) Mr. Huang Yu Xiong: Singapore prefers not to delay the project - if new scripts are going to delay. We can accept the convener's recommendation. Singapore will change its vote to POSITIVE.

Action item: Singapore is invited to propose the missing characters from Ext B to IRG for inclusion in future Extension C.

Comments with Approval from China - see document N2181.
Mr. Michel Suignard: China had several comments. These are all based on the basis of IRG resolutions.

a) Removal of 77 characters from Extension B. The Chinese comments are based on IRG resolutions. There are similar comments from Japan and US based on IRG results. There will be a new reorganized Extension B tables produced by IRG. *Accepted.*

b) Adding some characters -- *accepted* -- these are coming from IRG as well.

c) Glyph corrections also should be *accepted.*

d) The source data should also *be updated* to reflect the Extension B. The data file is part of the CD documents that was sent out.

Comments with Disapproval from Japan - see document N2181

a) J-1 *Accepted.* Clauses will be split as needed.
b) J-2 *Accepted.*
c) J-3 *Accepted.* With the second edition of Part 1, we are completely going electronic. The name list is a good example. The source information for the ideographs will most likely be only in soft copy form. We have to look at how we include normative parts of the standard that are going to be provided only in soft copy form. The file will be in .TXT form, with fixed length fields in each record.
d) J-4 *Accepted.* Information will be added.
e) J-5 Hanzi, Hanja and Kanji -- users may not know the differences as it is written. In Part 1 the sources were sorted out in the multicolumn format. A J-4 comment was related only to the format.
f) J-6 JPNxxx gets replaced with actual code points. Clause numbers in N2192 for J3 through J6 will be for clause 10.3.
g) J-7 Note under Clause 1 regarding Unicode reference. *Not accepted.*
h) J-8 "The conformance to this part is specified in ISO/IEC 10646-1". *Accepted.*
i) J-9 *Remove* See … from the reference list.
j) J-10 *Accept in principle*
k) J-11 *Accept in principle*
l) J-12 Even though the first row of Plane 2 is not allocated at this time, we do not want to reserve it for symbols at this time. We may decide to re-sort the CJK to start from position 0000 instead of 0100 as it is now.
  (1) Mr. Zhang Zhoucai: If it is possible to start at 0000, there may not be need for symbols. Some IRG members had identified some symbols, which look like symbols - but we do not have concrete proposals for such Ideographic Symbols.
  Disposition: We can suggest removing the holes in the first row. Japan and US are both in favour. - Japanese comment *accepted. Row 00 will be filled.*
  Action item: Mr. Michael Everson: Need to adjust the road map for Plane 2. Need a new document number.
m) J-14 *Accepted.* Move the Second sentence under SPP Clause 8 to a NOTE -- For example, ... etc.
n) J-15 *Accepted.* Reference to Annex R will be changed to Annex S. Some clarification text to be added to Annex S of Part 1 will be proposed. Wording change to the note 'at the exception' to 'with the exception'.
o) J-16 *Accepted.* Change - 'may' to 'should'.
p) J-17 *Accepted.* New collection ids will be added.
q) J-18 *Accepted.* Collection descriptor will not include any ideographs from Part 1. Also part of US NB. Will propose a collection to be added to Part 1.
r) J-19 *Accepted.* Typo.
s) J-20 *Accepted.*
t) J-21 - *Accepted* - based on discussion on Compatibility Ideographs. A compatibility ideograph zone will be identified based on discussion under item 7.3.
u) J-22 *Accepted.*
v) J-23 *Accepted.*

Mr. Mike Ksar: Will Japan change its vote to positive?
Mr. Takayuki Sato: We prefer a second CD rather than accepting for now. I can reverse our vote to positive, with the reservation that we get to see the revised text of the CD before it is sent for FCD ballot.

Action Item: To allow Japan to reverse its negative ballot on ISO/IEC CD 10646-2 from Japan, the project editor is to send the FCD text to Japan for a preview, before sending it for FCD processing

Comments accompanying Disapproval from Sweden (in documents N2181, N2168 and N2169):

a) SE-1

Sweden has commented to split the project into Plane 1 and Plane 2 as two separate projects. It is too late for such a project split.

Discussion:
i) Professor Kim: Why can't we split the standard into multiple planes? How about a new work item to split the standard into multiple parts after the current part 2 is processed. How populated are the current planes?
ii) Mr. Mike Ksar (and several others): WG2 had decided earlier to have a single Part 2, containing all the planes beyond Plane 0, and an NP for a single part was balloted at the SC2 and JTC1 as a result. Going back with alternate proposal to split the project -- without a very good reason -- will make our work questionable in the eyes of ITTF. Plane 1 is populated only a small percentage. Plane 2 has many more characters and Plane 14 has only about 128 characters.
iii) Mr. Takayuki Sato: We have to arrive at a consensus.

Swedish comment SE-1 cannot be accommodated.

Second and third comments -- Sweden is out of order - neither comment is either technical or editorial. Our program of work as approved by NP has set what Part 2 will contain, and we have to stick with it. WG2 proposals that are included in the CD are only after approval by the IRG or the experts on the subjects that have been identified to WG2. Sweden was made aware of the call of experts during the early proposal reviews in WG2.

b) SE-2

Language tagging as defined in plane 14 is part of RFC 2482.

Cannot be accommodated. Earlier decision of WG2 has been to include Plane 14.

Discussion:

Dr. Asmus Freytag: One of the requirements of plane 14 characters is that if we have a software that does not understand their use, it can take out all plane 14 characters. These cannot be used in conjunction with other characters in such a way that the entire string cannot be filtered out. The meta-character option was discussed at length with the experts who wanted the solution and that was not accepted at that time.

Dr. Ken Whistler: Also, the US will strongly object to removing these plane 14 characters.

c) SE 3: *Not accepted.* It will negate other NB positive comments.
d) SE 4: *Not accepted.* P designation, following Part 1 designation, which is based on ISO CS recommendation - is sufficient.
e) SE 5: *Accepted.* Better fonts will fix it. Combining characters will be indicated with dotted circle.
f) SE 6: *Accepted.* Better fonts will fix it.
g) SE 7: *Accepted.* Better fonts will fix it.
h) SE 8: *Accepted in principle.* Editor will consult Music Symbol experts.
i) SE 9: *Accepted in principle.* IRG editor should have access to better fonts to produce better glyphs.
j) (SE10 - this numbered item - does not exist.)
k) SE 11: Not applicable (a pdf file viewing problem).
l) SE 12: *Accepted.* Typo.

Comments with Approval from the UK:
    a) Technical UK-1: Noted. Had discussion on this subject. There is strong requirement not to delay progress of Part 2.
    b) Editorial: UK-1 through UK-12 -- *Accepted*.
    c) UK-13: Noted.

Comments with Approval from the US:
    a) T.1: *Accepted*. List of Western Musical Symbols - some characters will be marked as Combining, based on feedback from Experts.
    b) T.2: *Accepted*.
    c) T.3: *Accepted* - based on IRG report.
    d) T.4: *Accepted in principle*. It will be in the Amendment to Part 1.
    e) T.5*: Accepted in principle*. It will be in the Amendment to Part 1.
    f) Editorial: E-1 through E-16: *Accepted*.
    g) E-8: *Accepted in principle*. Editor to work with IRG to get correct sources.
    h) E.9: The request is to have a simple editorial change in the listing of sources of characters. *Accepted*.

Comment with Disapproval from Finland:
See agenda item 8.13 discussion on the proposal for splitting Extension B into B1 and B2 from the Canadian NB.

WG2 had extensive discussion on this subject and decided against the split due to insufficient support for splitting extension B, especially from the IRG members. We will assume that this will satisfy the Finnish negative ballot and change it to Approval.

Relevant resolution:
M38.4 (CD 10646-2):   **Unanimous**
WG 2 accepts the disposition of comments for the ballot on CD 10646-2 in document N2217, which reflects the results of discussion at this meeting M28, and instructs its project editor to prepare the final text of FCD 10646-2, including additional compatibility ideographs accepted for inclusion in Plane 2 at this meeting (per resolution M38.2 above), with assistance from the contributing editors, and to forward these documents to SC 2 secretariat for further processing in May 2000, with unchanged target dates.

7.2   Proposal to encode Meroitic in plane 1

Input documents:
N1638   **Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2; Everson; 1997-09-18**
N2098   **Report on the proposal for a Meroitic sign; DIN, Germany; 1999-09-13**
N2134   **Response to comments on encoding Meroitic (N2098); Everson; 1999-10-04**

Mr. Michael Everson: I have responded to the German experts on their concerns. See document N2134. I am awaiting their response. **Postponed to next meeting.**

7.3   Compatibility Ideographs encoding

Input documents:
N2159R   **Proposal for Compatibility Ideographs; TCA; 2000-02-15**
N2196   **CJK Compatibility Ideographs; Japan; 2000-03-15**
N2197   **Update CJK Compatibility Ideographs; Japan; 2000-03-15**

Mr. Shih-Shyeng Tseng: Document N2159R from TCA contains a proposal on compatibility ideographs. IRG document N710 contains some resolutions in response to WG2 resolution M37.16. Following this resolution, 527 compatibility ideographs are proposed by TCA.

Discussion:

a) Mr. Takayuki Sato: The consensus of IRG was to agree that the idea of Compatibility ideographs to support round trip ideographs is acceptable. Based on that consensus, TCA is proposing 527 new ideographs. At the last meeting we initially proposed the concept of compatibility characters. Document N2197 is Japanese input for some additional characters. Document N2196 is another document. I had an action item to deal with Compatibility Characters.

b) Mr. Mike Ksar: Were these characters presented to the IRG?

c) Mr. Michel Suignard: Compatibility characters need not be discussed in the IRG. IRG deals with the question of unification of ideographs.

d) Dr. Asmus Freytag: While it is true that compatibility characters need not go through IRG, it will be nice to have no duplication among these. It will be nice to have IRG determine whether these can be unified or not. As to the proposed code positions, on each plane, the last two code positions are permanently reserved. I need to remind TCA of this to keep in mind. Unicode is in favour of considering compatibility ideographs. We need to know the set is correct, and it is not duplicated between different proposals etc. I understand the TCA characters are needed for cross mapping. But we would like to see if these could be unified.

e) Mr. Shih-Shyeng Tseng: The proposals from TCA are already unified.

f) Mr. Takayuki Sato: IRG discussed whether compatibility characters can be unified or not. What kind of compatibility should we guarantee? We need to be able to define what compatibility means. Some countries say that we need compatibility with the Kang-Xi dictionary and it blows up from there. Document N2196 proposes some guidelines for WG2 to discuss.

g) Dr. Asmus Freytag: I like the approach of some sort of principles. The nature of compatibility is that you need them because some vendor or user community uses these and we need to interchange. Such usage are difficult to be captured under some guidelines / principles. It is very different from the unified repertoire where we can have some good principles.

h) Mr. Takayuki Sato: We had some compatibility characters in Part 1. We had some discussion at the time of Vertical extension A about compatibility characters can be unified ideographs or not. I think these should be different. There is some confusion between compatibility ideographs and source code separation. All the IRG members should be present for this discussion.

i) Mr. Mike Ksar: We need to focus on N2196. You have some definitions and some guidelines in there. People need to read this and digest this. If these principles are to be accepted, we need to agree on the content of N2196. I agree with you on this.

j) Dr. Asmus Freytag: Rule 3 in document N2196 - benchmark - numbering of the benchmarks and rules should be rethought. It is not clear in the document. If TCA comes up with 527 and if we agree that these are compatibility ideographs. We should not try to unify within that set. However, if Hong Kong comes up with some more, we should examine whether these can be unified with the TCA set or not.

k) Mr. Michel Suignard: One has to redefine the unification rules to accommodate the compatibility characters. We do not have any rules regarding unification of compatibility ideographs now. The effort spent on this may not be worth it, considering that the number of compatibility characters would be very small.

l) Mr. Takayuki Sato: If the reasoning is the same, for example the dictionary is the same etc. I agree these could be unified. Under other circumstances, like same shape, these should not be unified. If you are proposing compatibility characters, some minimum information is needed such as if there is a unified ideograph already in the standard, what is the source, why you need it etc., then one could examine whether it is a candidate for unification or not.

m) Mr. Mike Ksar: Why can't we then write the rules in such a cascading manner? It is used in standard, and is needed for round tripping with some standard etc.

n) Dr. Ken Whistler: The US position is that WG2 should include space for compatibility characters in Plane 2. WG2 should also instruct IRG to consider the TCA collection, the HK GCCS, and other relevant collections. The IRG should also be instructed to examine possible unification of the proposed compatibility ideographs, including the criteria for unifying the compatibility characters.

o) Mr. Mike Ksar: If we want to give this task to IRG as a one-time task to do, it will be an action item we could take. The main task of the IRG is Han unification. We can recognize that the expertise is in IRG.

p) Dr. Ken Whistler: There are some significant sets which cause problems for inter-working with UCS like the Hong Kong, TCA and Japanese sets. There is no indication that there is an ongoing search to look for more possible sets. The effort is expected to be limited only to the currently well-known sets. The attempt of unification should not be expanded beyond the well-known compatibility sets.

q) Dr. Asmus Freytag: We can assign the task to IRG. We may ask IRG from time to time to examine a specific set for unification of Compatibility characters.

r) Mr. Michel Suignard: If we do this, the amount of discussions that can happen on unification and arrive at a consensus, we will introduce more delays. For the well-known sets, the chances of unification among the sets are almost nil or minimal. It is not worth asking IRG and cause this unnecessary delay. At least for the two well-known sets from TCA and Japan, we should proceed with these sets right away.

s) Mr. Takayuki Sato: The job should be assigned with specific target standards if IRG should be instructed to examine unification of compatibility characters. WG2 should decide whether a set of compatibility characters is required or not. Because of nature of IRG, it is necessary that WG2 decide on the guidelines and instruct the IRG.

t) Mr. Mike Ksar: Because of the urgency of having these compatibility characters in Part 2, we have two submittals at this meeting -- N2197 and N2159R.

u) Dr. Ken Whistler: We have examples of where some of the unification can be done. We can do possibly the unification at this meeting by looking at the two proposals. Something has been stated here - that we are going to put in Part 2 - this has not been decided here yet. To find a candidate list of unification is not the problem. The US and UTC position on the Japanese characters were to encode these in the BMP. It has no relation to Part 2. Document N2197 proposes these for the BMP and is also the US position.

v) Dr. Asmus Freytag: We are trying to put the TCA proposed set into part 2. We could separately ask the IRG for an expert review. Ad hoc can be set up to review the various documents and come up with a recommendation for WG2 to examine -- on what to encode, where to encode and possible schedule.

w) Mr. Mike Ksar: What will we do if we do receive another contribution from Hong Kong? These will be discussed whenever such a contribution is needed.

x) Mr. Takayuki Sato: As far as we know today - HK, TCA and Japan have identified compatibility characters.

Ad hoc: Messrs. Kyongsok Kim, Ken Whistler, Tatsuo Kobayashi, Zhang Zhoucai, Takayuki Sato, Asmus Freytag, Michel Suignard, and Shih-Shyeng Tseng.

Ad hoc report:
Dr. Ken Whistler reported on behalf of the ad hoc group. Document N2195 has been replaced. The ad hoc discussed on how to proceed with the Compatibility ideographs. One of these is proposing 61 ideographs to be placed on the BMP. A separate TCA proposal for 527 compatibility ideographs to Plane 2 - will be an issue for the CD. There was a discussion on alternative approaches to deal with these. We came up with three possibilities.

a) Remand the entire issue of unification of all compatibility ideographs to the IRG considering all proposals, including the possible proposals from Hong Kong, Korea etc., along with coming up with principles of unification etc. Ask IRG to come back with a set that would be scrubbed. This may be the cleanest approach. This would place an additional burden on the IRG and can potentially take a long time.

b) Consider the two proposals at hand, consider possible unification between these two and come up with revised proposals.

c) Compatibility ideographs are standard by standard and should be treated as separately, without any consideration for unification. Ask the submitters to do some due diligence on their part. We may get others from HKSAR for GCCC sets, and possibly others from Korea. These will get rapid encoding positions for round tripping to existing standards in implementations. JIS X 213 has to be round tripped to soon. The drawback will be that there can be duplicate compatibility ideographs in the standard and there will be no way to take these out.

The ad hoc came to the conclusion that it would be a mistake to go ahead with unification (with possible 18 unifiables), based on just these two sets. There is no good basis for these possible 18 ideographs alone without more context of use in the source standards. This leaves option b out. That leaves us with options a and c. My recommendation is that if we go ahead with option c, the submitters have to provide better recommendation on the rationale for each of the compatibility character(s) proposed. Such documentation will help us to explain in the future how these were encoded separately.

Discussion:
a) Mr. Takayuki Sato: The conclusion is OK with me. The quick and dirty unification is not possible. We did not look at any of the possible rules for unification.
b) Mr. Michel Suignard: Is there an agreement on the corresponding unified ideograph.
c) Dr. Ken Whistler: It is clear that the unified ideograph is agreed upon in each of the proposal. There are reasons for each of the compatibility characters to exist in the national standards, but the unification among these compatibility characters cannot be done with any specific criterion.
d) Mr. Shih-Shyeng Tseng: I prefer option c.
e) Mr. Mike Ksar: Is there a need for the IRG to look at possible unification for future such compatibility ideographs? One of these proposals is to go into the BMP. The other one is to go into Plane 2.
f) Dr. Ken Whistler: There is no room for the TCA set in the BMP. The new set from Japan has 61 (old one had 56). UTC has already adopted to put the Japanese set into the BMP. With the option c, there is no action on IRG.
g) Mr. Takayuki Sato: We need to ask for better justification for the compatibility ideographs. It could be in the form of an Annex to the standard.
h) Mr. Zhang Zhoucai: The importance of documentation was also discussed. Detailed documentation must be provided to avoid any confusion. Document N2142 - details as to the source, the unified ideographs, clear glyph, the number of strokes, radicals, justification for these characters being there.
i) Mr. Mike Ksar: There will be action item on the proposers. If the submitters do not provide all the information related to these characters including their sources, we cannot go ahead.
j) Mr. Takayuki Sato: These sets should also have collection names reflecting the standard to which these characters are being round-tripped.
k) Mr. Zhang Zhoucai: The compatibility issue is not an issue for an IRG for now? For now, it is not assigned to the compatibility ideographs. Does the IRG get involved in the review of the compatibility ideographs?
l) Mr. Michael Kung: Do we need any further information from TCA? NO.
m) Mr. Michel Suignard: document N2142 - What would be the format of the text to be included. We now have 10.2 clause for Plane 2. I will need to create a new clause for the compatibility ideographs. We have agreed to include the source information for the unified CJK in an Annex. We need another annex for the compatibility characters.
n) Dr. Ken Whistler: At a minimum we need to identify the source for the compatibility characters in Annex F. A couple of lines identifying this entire set. If we have the information on mapping available in machine-readable form, it should be included in the Annex as well. The normative information on where each character comes from should be in another Normative Annex. This is in the form of code point TAB code point, in the softcopy form.
o) Mr. Mike Ksar: I would like to thank the ad hoc for their disposition.
p) Dr. Umamaheswaran: We need to look at the roadmaps to reflect these sets for Plane 0 and Plane 2.
q) Mr. Michael Everson: There is some area in plane 2. CNS 11643-1992 Compatibility Ideographs F800 to FA1F.

Disposition: Accept the TCA proposal as in document N2159R is the document for inclusion in Plane 2. It has all the information we need. Some character-by-character information may need to be addressed. 527 characters Proposed F800 to FA16. Glyphs are in the document. Accept the Compatibility ideographs from Japan into Plane 0, and place it in the bucket.

Document N2197 has to be reworked towards being suitable for inclusion in the standard with more information on character-by-character basis. The proposed code positions are from FA30 to FA6B -- JIS

X0213: 2000 Compatibility Ideographs. The BMP roadmap is to reflect these. Japan is to update the document N2197 giving more details and justification for these characters.

Relevant resolutions:
M38.2 (CJK compatibility ideographs from TCA/CNS 11643):   **Unanimous**
WG2 accepts the proposal for 527 compatibility ideographs from the Taipei Computer Association for encoding in Plane 2, at positions F800 to FA16, with the shapes and source identifications as shown in document N2159R. WG2 further instructs its project editor to include these characters, along with suitable additional information on these compatibility ideographs per discussion at meeting M38, in the final text for FCD 10646-2 being prepared per resolution M38.4 below.
M38.11 (CJK compatibility ideographs from JIS X 0213):   **China Negative**
WG2 accepts the proposal for 61 compatibility ideographs from Japan for future encoding in the BMP, at positions FA30 to FA6B, with the shapes and names as shown in document N2197. Japan is to provide additional information on these compatibility ideographs suitable for inclusion in the standard per discussion at meeting 38 (see also document N2142). WG2 further instructs its project editor to add these characters to the list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1 (based on resolution M36.19 - New character bucket M36).

Action items: Mr. Michael Everson to update the roadmap documents for Plane 0 and Plane 2 to reflect the above resolutions. Japan is to provide additional information per resolution M38.11 above.

7.4   Roadmap - planes 1, 2, 14

Input documents:
N2113   Roadmap – 10646 BMP – plane 0; Everson; 1999-09-16
N2114   Roadmap – 10646 SMP – plane 1; Everson; 1999-09-16
N2115   Roadmap – 10646 SIP – plane 2; Everson; 1999-09-16
N2116   Roadmap – 10646 GPP – plane 14; Everson; 1999-09-16
Mr. Michael Everson and Dr. Ken Whistler: The roadmap documents have been modified slightly. New documents N2213, N2214, N2215 and N2216 for planes 0, 1, 2 and 14, will reflect the latest changes in the roadmaps. These documents are to be sent to SC2 secretariat. The user community has rejected Proto Sinaitic. The UTC has rejected Phaistos Disk (?). Regarding Row 11 - Chakma, we have evidence that these are in living use and we propose to move this from plane 1 to the BMP.

a)   Dr. Umamaheswaran: Please keep in mind that this is the first time WG2 is formally endorsing these roadmap documents.

Action item: Dr. Umamaheswaran to provide a link to these documents on the SC2 web site, once they are posted there, from Annex A of the principles and procedures document.

> **Relevant resolution:**
> **M38.15 (Roadmap documents):**   **Unanimous**
> WG2 adopts documents N2113, N2114, N2115 and N2116, as revised based on the discussion at
> meeting M38 as its standing documents. WG2 invites Mr. Everson to revise these documents reflecting
> the agreed upon changes, and forward these for distribution by WG2 and by SC2. The WG2 Principles
> and Procedures document N2002 is to be revised to reflect these revised roadmaps.

7.5   *Old Mongol scripts*

Input document:
N2163   Soyombo and Pagba (old Mongol scripts); Sato; 2000-01-06
Mr. Takayuki Sato: The Mongolian experts could not support the old Mongolian (Soyombo and Pagba)
scripts at the time when Mongolian were discussed. They did not have resources to work on it at that
time. These scripts are to go to the roadmap documents.
Action item: Mr. Michael Everson is to include these in the roadmap.

7.6   *Overview of characters approved by Unicode*

Input document:
N2187   Overview of characters approved by Unicode; Unicode Consortium – Asmus Freytag; 2000-03-13
Dr. Asmus Freytag: Document N2187 is in line with the ongoing synchronization between WG2 and the
UTC. It contains a list of what has been already endorsed in the UTC for information to WG2 including the
code positions where these have been accepted. It is a summary of where UTC is. This document does
not contain anything with reference to Part 2. Some of these are based on proposals from other sources.
Discussion:
   a)   Mr. Takayuki Sato: We may have to check what has been accepted and what the UTC has not
        accepted.
   b)   Mr. Mike Ksar: Since these characters are already endorsed by the UTC, in the interest of
        synchronization, WG2 has to take specific action to endorse these as well in the interest of
        synchronization.
Action item: NB-s to review and feedback on document N2187, towards acceptance by WG2..

7.7   *Philippines script*

Input documents:
N1933   Revised proposal for encoding the Philippine scripts; Everson; 1998-11-10
N2194   Philippino characters; Sato; 2000-03-22
Mr. Takayuki Sato: The older contribution was submitted by Mr. Michael Everson. I took an action item to
check with Philippines experts. One feedback received from one Philippines expert was identical to the
Mr. Michael Everson proposal and had the same source. I have requested the Philippines national body
to verify the information with other experts and other sources. I will await the feedback from them and
report back.
Action item: Carry forward to next meeting. Mr. Takayuki Sato to get feedback and report.

8   ISO/IEC 10646-1: 2000

8.1   *Proposal for Khmer Correction to Amendment 25*

Input document:
N2149   Khmer update - AMD 25; Takayuki K. Sato; 2000-01-05
N2164   AMD-25 (Khmer) correction request; Cambodian IT Association, Takayuki K. Sato (MLIT secretariat);
          2000-02-23
Mr. Takayuki Sato: Document N2149 - is an agenda item place holder Document N2164 explains the
requirement from Cambodia - request for addition of ONE new character and removal of EIGHT
unneeded character. The Amendment on Khmer is new and it is not too late to remove these characters
even though in principle we do not. I would like the Cambodian expert explain the requirements.

Mr. Mony Sokha Sath explained the requirements. We need one new character. We strongly
recommend FOUR characters to be removed. And the other four are not so useful. Mr. Maurice Bauhan
prepared the original amendment text.
Discussion:

b) Mr. Mike Ksar: I would like to remind everyone that there are principles we use - these have been clarified over time. Once a character is encoded we do not take the character out, because some implementers might have implemented them. The principle of adding is always accepted. The corollary to the first one is that if a character is already in the standard even if it is not acceptable, if it does not hurt you, leave it alone.

c) Mr. Michael Everson: Earlier today we had a brief ad hoc. Four of the characters are archaic - the Unicode 3.0 talks about their use in Pali. Four others, which were proposed by Mr. Maurice Bauhan in conjunction with some Khmer experts, the most sensible thing to do was to liaise with the previous group of experts via email. If these characters are really to be deprecated, a cautionary note can be added. As to the request for the new character, it could be useful for not breaking etc. I support the additional character. It looks like it could be composed, but it cannot be.

d) Dr. Asmus Freytag: The content of any given block of characters need not be identical to the modern use of the alphabet. National ministries etc usually prescribe the rules of the modern orthography. As long as the building blocks are there to create modern orthographies, it should be sufficient. Even if there are mistakes in the standard, we have to keep in mind the users of these characters. By deleting characters, we invalidate existing software. The greater danger of vacating the space is the possibility of other characters going in the vacated spots. Many of the superfluous characters are needed by non-modern orthographies. We have option of adding informative notes as to the special use of some of these characters in the Unicode standard. WG2 has chosen not to use such usage notes in the ISO standard, due to the magnitude of the task, whereas in Unicode we have taken the task of adding such guidelines. Any information you can provide to us in that regard we can use in the Unicode.

e) Mr. Mony Sokha Sath: KHMER SIGN LAAK - is used in the middle of a sentence just like "etc." in English. Suggested code position is 17DD.

f) Dr. Ken Whistler: We may be able to come to consensus on adding the new character KHMER SIGN LAAK. I would have to agree with what the convener has stated about deleting the characters, and the US delegation may not be able to agree with the deletions. It is better to add explanatory text about the use of these characters.

g) Mr. Takayuki Sato: I would like to focus on the additional character.

h) Mr. Mike Ksar: We seem to have consensus on the addition of the requested character, and place it in the bucket for future addition.

i) Dr. Umamaheswaran: We had a similar situation with APL names, where we had a problem with the name and the shape of the character. We resolved it by adding an informative note to these names. If we have agreed upon comment on these names such an annotation can be added to these names.

Disposition: Accept KHMER SIGN LAAK at position 17DD (in Row 17: Khmer) with the glyph as shown in document N2164. Put it in the bucket. **See resolution M38.7 listed under item 8.8.**

Action item: The proposal is to have liaison between Mr. Maurice Bauhan and Cambodian experts, to come to an agreement on the kind of annotation / explanatory text needed -- Messrs. Ken Whistler, Michael Everson, Maurice Bauhan, Cambodian national body expert.

8.2   *Proposal to supplement Arabic for Uighur, Kazakh & Kirghiz*

Input document:
N2048   **Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz languages – Update of 1996 proposal of WG2 N2027; China; 1999-08-06**
Refer to item 8.4 on page 27 in document N2103 - Meeting 37 minutes. Document N2048 contains the relevant proposal. We had accepted two of the four characters proposed in Meeting 37. The other two are for consideration at this meeting. China will be requested to produce the relevant Font for being able to prepare the future amendment to the standard.

Professor Woshur Slamu: We had presented a set of Arabic ligatures for Kirghiz etc. earlier. We had forgotten to include the following characters in our early submission:
    FBD1 - ARABIC LIGATURE UIGHUR YEH WITH HAMZA ABOVE WITH E MEDIAL FORM
    FBD2 - ARABIC LIGATURE UIGHUR YIH WIH HAMZA ABOVE WITH ALEF MAKSURA MEDIAL FORM

FBCF - ARABIC LIGATURE KIRGHIZ YEH WITH HAMZA ABOVE ISOLATED FORM
FBD0 - ARABIC LIGATURE KIRGHIZ YEH WITH HAMZA ABOVE FINAL FORM

Discussion:

a) Dr. Ken Whistler: The US is opposed to adding any further addition of ligature to the Arabic block. Document N2048 has more ligatures. Ligatures in Arabic presentation form A are not useful. Implementations should deal with mapping Arabic characters from Basic characters to Fonts. They should not use the presentation forms as character encoding. The presentation forms that are in the standard today are not complete in any sense -- there can be many more for other scripts such as Urdu or Farsi etc. -- and these presentation forms should not be used for data encoding. These are ligatures with positional variant forms that are proposed here. Their base characters are already encoded in the standard that could be used with the appropriate fonts.

b) Mr. Yutaka Kataoka: Some vowels with Arabic script - in this case Hamza - are required. Is a vowel with Hamza a new character or is it a ligature?

c) Mr. Mike Ksar: Parts of the ligatures are already encoded as base characters. Two of these can be used with ZWJ or ZWNJ in the software, and they can be used in a software to represent the ligatures etc. Some of the characters -- with medial hamza or medial yeh, can also be formed using existing base characters. The coded positions from the FB block should not be used for multiple shapes -- the fonts along with the presentation software should be used to produce the required presentation forms One of the reasons for these, if you are searching for a PRESENTATION FORM you may not find it. However, the data if encoded in the base form, you will find it. You should not be encoding the medial shapes. The presentation software should be using the base characters along with ZWJ and ZWNJ etc.

d) Mr. Michael Everson: Are you using the Open Type fonts? Then you do not have problems. You should not be using any of the FB block.

e) Mr. Michel Suignard: As one of the implementers, we never use the Presentation Form for the Arabic characters. We use presentation logic to do all the shaping etc. to get the correct glyphs from the Fonts.

f) Professor Woshur Slamu: The current standard has already 80 ligatures that we need. There are a few missing ones for our purposes.

g) Mr. Mike Ksar: The basic nominal form from the standard along with the rendering engine that provides the shaping, ligature creation etc. along with the correct font should be used to get what you need. The presentation forms should not be encoded in the standard. (I can explain it to you during the break.) During the break, a demo was given to the delegate from China on how to use the base set of characters, and there is no need for additional characters.

Disposition: Uighur experts from China were shown how to use the base Arabic characters from the standard, along with the proper rendering engine, so that they can solve their problem, without having to encode more Arabic presentation forms in the FB block.

8.3   *Editorial corrigenda*

Input documents:
N2158   Editorial Defects in AFII character tables (pdf version), and various additional corrigenda, in 10646-1 2nd
              Edition; Paterson; 2000-01-26
N2210   Editorial correction on Khmer – post 10646-1:2000; Ireland and Unicode; 2000-03-22

Document N2158
Mr. Mike Ksar: Document N2158, from the project editor identifies some editorial defects in ISO/IEC 10646-1: 2000. It identifies a number of editorial corrections that have to be made to the PDF version of the 2nd edition that was submitted to ITTF. The set of items under section B, are already processed in the version that was sent to ITTF.
  a)   Items A.1, A.2 are some things to be fixed.
  b)   Item A.3 - is to fix the notation of Asterisk. The original convention was that we had an asterisk, when the character has an entry in the Annex P. The editor is proposing to use the asterisk when a character has an entry or referenced in Annex P.
Disposition: WG2 accepts the proposed editorial corrigenda under section A in document N2158.

Document N2210
Dr. Ken Whistler: Glyph errors were discovered during the discussion on Khmer (see earlier discussion under item 8.1). Somehow, our quality control process between PDAM and FDAM did not catch these glyph errors. The final version check was done against the FDAM version, which had the wrong glyphs. Document N2210 shows the corrected glyphs.
Disposition: WG2 accepts the proposed editorial corrigenda - corrected glyph chart for Khmer as shown in document N2210..

8.4   *Proposal to add 8 Cyrillic Sámi characters*

Input document:
N2173   Proposal to add 8 Cyrillic Sámi characters to ISO/IEC 10646; NTS (Norway), SFS (Finland), and NSAI (Ireland);
              2000-03-03
Mr. Michael Everson: Document N2173 is a proposal to add 8 Cyrillic Sámi characters. Six of these are NEW characters. If unification were correct it would have been OK. The N-s with the Descender are being asked as additional characters. Norway, Finland and Ireland have asked for these.
  a)   Dr. Ken Whistler: This proposal is in line with US - to take the wrong characters out before the previous amendments went out. We will have no problem in supporting this. The code positions are also OK.
Disposition: Accept the 8 characters for inclusion in the BMP; add to the bucket - glyphs and shapes and code positions as shown on page 4 of N2173. **See resolution M38.7 listed under item 8.8.**

8.5   *Roadmap – BMP – plane 0*

Input document:
N2113   Roadmap – 10646 BMP – plane 0; Everson; 1999-09-16
Mr. Michael Everson explained the changes to the BMP roadmap. Yi extension provision has been proposed. Chakma is proposed to be moved in here. See discussion under item 7.4.

8.6   *Peso and Peseta Sign*

Input documents:
N2156   Peso sign and Peseta sign (U-20A7); Sato; 2000-01-06
N2161   Peso -Character sample – supplemental data to N2156; Sato; 2000-02-20
Mr. Takayuki Sato: Document N2156 contains the proposal; document N2161 contains the sample. Unicode 3.0 has already an answer to this problem. The problem was the glyph like Pta and Pts were different. The proposal was to change the currently assigned glyph to Pta, and add a new character P with bar - as PESO. The glyph change was already accommodated.

Discussion:
   a)   Dr. Ken Whistler: Code position 20B0 has been allocated to the German Penny Sign by the UTC (20B1 is the next free position). I think the US committee will have no problem with this proposal.
   b)   Feedback from Johan van Wingen: ISO 4217 - Currency Code list has a number of countries using the Peso sign. Do we intend to assign a separate Peso sign for each of the other countries, besides Philippines? Response: The other countries use the word Peso, but their national currency signs are not the Peso sign.

Disposition: WG2 accepts to encode 20B1 - PESO SIGN in the BMP (and add it to the bucket) with the glyph that looks like a P with two bars as it appears on Page 1 of N2161 (Newspaper sample). **See resolution M38.7 listed under item 8.8.**

8.7   *Additional info on proposal to add 3 symbols*

Input document:
N1887R   Proposal to add 3 symbols; Asmus Freytag; 1998-09-24
N2184   Additional info on proposal to add 3 symbols (N1887); Asmus Freytag; 2000-03-13
Dr. Asmus Freytag: Document N1887R contained a proposal summary form with some relevant information. Document N2184 is in response to an action item on me to get more evidence of usage of these characters. As to the Square Foot symbol, to me the fact it appears on an ad on a road sign indicates that the professionals in that area will recognize it. I have not found equivalent evidence for the Square Inch symbol. The Property Line symbol - I have copied from a document in my possession - it is from a pre-computer drafting document. Its usage is analogous to the 2104 CENTRE LINE symbol. The appearance P and L combination in a drafting document, to me, is equivalent to the Centre Line and gives justification to add it.

Discussion:
   a)   Mr. Michael Everson: There is already a PL combination - 2647.PLUTO sign.
   b)   Dr. Asmus Freytag: The hand-written example is not necessarily clear to show the typographical distinction between the Pluto Symbol and Property Line symbol. One has a double stroke -- L crosses the Circle of the P.
   c)   Mr. Michael Everson: I am satisfied.

Disposition: WG2 accepts and adds to the bucket: 237D - SQUARE FOOT, 234A - PROPERTY LINE, with glyphs similar to what appear in document N2184. **See resolution M38.7 listed under item 8.8.**

8.8 *Proposal to add German Penny symbol*

Input document:
N2188 **Proposal to add German peNy symbol ; Unicode Consortium – Asmus Freytag; 2000-03-13**
Dr. Asmus Freytag: Explained the background for the German Penny Symbol - proposed in document N2188. It is based on a cursive D with a tail. It is not in modern use. It is one of the historical characters. The UTC based on a very lengthy contribution from a German expert has accepted it. The evidence indicated use of this symbol on several typewriter keyboards -- Model Chicago in the US. It cannot be unified with any other character. The proposal is that WG2 ratifies the Unicode decision
Disposition: WG2 ratifies the Unicode decision - accepts 20B0 - GERMAN PENNY SYMBOL with shape as shown in document N2188 and places it in the bucket for future processing.

Relevant resolution:
M38.7 (Additions to the BMP - Miscellaneous):   **Unanimous**
WG2 accepts to encode the following in the BMP of ISO/IEC 10646:
1)   17DD - KHMER SIGN LAAK, with the glyph as shown in document N2164.
2)   8 Cyrillic Sámi characters, with the shapes as shown on page 4 of document N2173:
>   048A - CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
>   048B - CYRILLIC SMALL LETTER SHORT I WITH TAIL
>   04C5 - CYRILLIC CAPITAL LETTER EL WITH TAIL
>   04C6 - CYRILLIC SMALL LETTER EL WITH TAIL
>   04C9 - CYRILLIC CAPITAL LETTER EN WITH TAIL
>   04CA - CYRILLIC SMALL LETTER EN WITH TAIL
>   04CD - CYRILLIC CAPITAL LETTER EM WITH TAIL, and,
>   04CE - CYRILLIC SMALL LETTER EM WITH TAIL.
3)   20B1 - PESO SIGN, with the shape as shown on page 1 of document N2161 (a P with two horizontal bars)
4)   237D - SQUARE FOOT, and,
    234A - PROPERTY LINE
    with shapes similar to what appear in document N2184.
*(NOTE: the above should be corrected to **23CD** and **214A** respectively. The error was discovered after the meeting by Dr. Ken Whistler -- Umamaheswaran.)*

5)   20B0 - GERMAN PENNY SYMBOL with shape as shown in document N2188.
WG2 further instructs its project editor to add these characters to the list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1 (based on resolution M36.19 - New character bucket M36).

8.9 *Encoding of NG and ng for Philippines*

Input document:
N2165 **Ng and ng of Philippines; Sato; 2000-02-23**
Mr. Takayuki Sato: Document N2165 results from an action item on me to show how NG looks like. The Philippines people would like to have this as a single character rather than as two separate characters.
Discussion:
>   a)   Mr. Michael Everson: In Welsh we have a similar character NG. It is sorted differently -- after G in Welsh. They are not encoding the Welsh NG as a single character. The requirement to sort correctly is not therefore a reason for encoding this as a single character. For sorting they can use ISO/IEC 14651 like any one else. For inputting an input method can be used to have a single character on keyboard and separate them for encoding.
>   b)   Dr. Ken Whistler: US is very much opposed to it. There are a number of similar examples of DIGRAPHS or TRIGRAPHS that have come up. Some of these have to be treated as single units for sorting such as in dictionaries. If WG2 goes down this road, we may have to end up in encoding several of these combinations, which are treated as a single unit only for some specific application.
>   c)   Mr. Takayuki Sato: What would qualify for single encoding then?

d) Dr. Ken Whistler: One evidence against it would be that Windows for example has encoding of N and G separately. This will cause break and incompatibility with all existing databases. The same sort of problem arises if the data is already in place using these digraphs as multiple characters. If we can find evidence of N and G and NG are consistently used to keep a distinction between them, then it could qualify for separate encoding.

Disposition: WG2 does not accept the proposal to encode a single character NG.

Action item: Mr. Takayuki Sato san can take back the message.

8.10 *Mapping question – Wave Dash –U301C*

Input document:
N2030 **Progress Report on Printing ISO/IEC 10646-1; AFII, Freytag; 1999-06-10**
N2166 **U-301C WAVE DASH; Sato; 2000-01-04**

Mr. Takayuki Sato: Document N2166 shows a problem of mapping based on glyphs. It refers to document N2030.

Discussion:
a) Dr. Asmus Freytag: The change in the glyph is not recommended. It is unfortunate. The recommendation is to take back the message that mappings should treat these as glyph variants in JIS 208.

Action item: To convey to Japan that the glyph change for 301C WAVE DASH is not accepted.

8.11 *Lao repertoire - collection 26*

Input document:
Document N2162 Row 0E LAO (collection 26); Sato; 2000-01-06

Mr. Takayuki Sato: Document N2162 - Lao representative indicated unhappiness about 13 characters in ISO/IEC 10646-1 because these were not consulted with the National authorities. I had discussion with the Lao government, and for now they have accepted ISO/IEC 10646-1 as the Lao character set. They may come back with Lao extension in the future. For now there is no other action to be taken.

8.12 *Mapping IEC 61286 and ISO/IEC 10646 – technical symbols*

Input documents:
N2171 **Correspondence between IEC61286 and ISO/IEC 10646-1 (Electro Technical Symbols); Åke Svensson; 2000-02-25**
N2174 **Comment on IEC 61286-2, Electrotechnical Symbols; Hugh McG. Ross; 2000-03-03**

Mr. Mike Ksar: The IEC standard over time ended up in encoding some characters in a different place. They took upon a mapping activity. There are several problems identified in document N2171. Document N2174 is input from Hugh Ross. I will respond to them that this document is under consideration and will respond to them.

Dr. Ken Whistler: Some of the questions are being addressed in the Mathematical Symbols proposal. I will take an action item to prepare a response to document N2171. I will also include consideration for document N2174.

> **Relevant resolution:**
> **M38.16 (Feedback to IEC - 3B on mapping of technical symbols):** **Unanimous**
> With reference to documents N2171 - IEC 3B/2xx/CDV, and N2174 on correspondence (mapping) between ISO/IEC 10646-1 and IEC 61286-2, WG2 instructs its convener to prepare and forward to the responsible IEC committee, a suitable response with assistance from Dr. Ken Whistler.

8.13 Consideration for Encoding a subset of CJK Ext B in BMP

Input document:
N2183   Consideration for Encoding of a subset of CJK Extension B in the BMP; Canadian national body; 2000-03-09
(See also Finnish negative ballot comment on ISO/IEC CD 10646-2 in document N2181.)

Dr. Umamaheswaran presented document N2183. Canada was approached by two of the major IT vendors with their input. The NB considered the proposal to split the extension B and saw merit in getting this discussed at the WG2 meeting especially the IRG members of WG2. This meeting would be the last chance to do anything with extension B -- since Part 2 will be frozen at this meeting. The encoding related matters are entirely within WG2, even though IRG has to do some additional work. We also know that the subject was discussed at the UTC and L2 meetings and there was no support for the proposal. Document N2183 includes some of the advantages and concerns regarding the proposal. Initial feedback from the UK expert and Irish expert are also included in the document.

Discussion:
a) Mr. Mike Ksar: I open the floor for comments from the different experts, especially from the IRG member bodies.
b) Mr. Chen Zhuang: China does not support this proposal - this has never been discussed in IRG earlier. If some IRG members can put some of their own characters in the BMP, then China can also request for more. Also, this can delay Plane 2.
c) Professor Kyongsok Kim: I had discussed with domestic IRG members - there is no formal decision by these members. I do not have a national position at this time. I do not have a formal position. We suggest we postpone a decision on this. They need to have a national meeting on the topic. I do not say I am objecting to this paper - but I cannot support this.
d) Dr. Ken Whistler: At the last meeting of L2, we took a formal position against this. We essentially concur with China - the reasons have been documented in N2183. It will possibly further delay the implementation. It was not a Unanimous US position. The UTC is also in opposed to this - as Dr. Umamaheswaran has already mentioned.
e) Mr. Michael Everson: Ireland did not like it. We are willing to discuss this. If there is strong requirement as to the urgency to get to the market etc. we would have supported this. We do not wish to go against the wishes of the IRG members.
f) Mr. Christopher Fynn: Mr. Bruce Paterson from the UK has given the feedback. It was discussed in the BSI national body meeting. We have no objection to accepting the Japanese set, if it will encourage acceptance of ISO/IEC 10646 in Japan. If helping one group of users is causing extra delays to the project etc. then we have to take that into account.
g) Mr. Hideki Hiura: As far as implementers are concerned, there are many implementations that can support UTF-16 and therefore the UCS plane 2. Some companies may have problems with their current implementations.
h) Mr. Takayuki Sato: Is this the national position of Canada ? Canada - Yes. The two main components of JIS X0213 - has three pieces, one is the compatibility ideographs, we have discussed and it is done. The second is the set of CJK ideographs, the third is the symbol set. The whole set is of X 0213 should be considered. I would like to caution people to read -- "Japan" in Annex D as Microsoft and IBM. This paper seems to give priority to the Japanese set. I would be in favour of accepting these because it helps Japan. But I do not want to be singled out as favouritism for Japan. From the project point of view -- the three pieces should also be considered. I would like to have good news for the symbol set -- under the different agenda item. Reorganizing the Extension B will take some time -- the editor is from China, they may not have any incentive to do the job. If IBM or Microsoft can assist in the process of helping the splitting and do the work of creating B1 and B2 -- it will be a condition to avoid the delays. Japan will be happy to support with these conditions. Japan NB did not introduce this in IRG.
i) Mr. Mike Ksar: The production difficulties regarding the splitting etc. should not be within the scope of WG2. The editors are responsible for this project. The project editor for part 2 is from one of the companies. There is some work in the processing of splitting of the extension B.
j) Dr. Ken Whistler: There are some practical issues - the current date of the FCD is by end of May. All the work of Extension B split has to be done at the same time as the IRG Resolution delivery etc. The IRG is not going to meet again till June. All this has to be done before the IRG meets. We may have to accept that the FCD has to be delayed if we have to accept this.

k) Mr. Mike Ksar: Even if we decide to split extension B, the part going to Part 1, has to be through an amendment. There is a process time that is involved to get the Part 1 going.
l) Mr. Michel Suignard: There is still a lot of work to be done. The work to accommodate the IRG resolutions etc. has already been done. An ad hoc has to get together to be able to move the work fast: Part 1 work is orthogonal. We need amendments to Part 1 anyway for other reasons to support JIS X 213.
m) Mr. Takayuki Sato: The assumption from IBM Japan representatives is that an amendment will be coming up within a year.
n) Mr. Christopher Fynn: There is no need for any more repertoire change, no change to unification etc. It is asking for splitting the set and moving one part to Part 1 and the other to leave in Part 2.
o) Mr. Michel Suignard: There are also others - for about 100 other characters from other sources because these are unified. The IRG has to do some work to explain this move.

(Break - delegates were encouraged to discuss the topic during the lunch break.)

p) Ireland, US - we do not support the splitting Extension B.
q) Korea - I want to abstain since we did not have any discussion in Korea. As an expert I do not have any opinion.
r) UK: Contrary to our earlier understanding, we are told that this is not a requirement from Japanese industry.
s) China: We are against the splitting.
t) Canada: Dr. Umamaheswaran - Looks like the IRG countries present do not see the benefit stated in the Canadian contribution to be important for them. Canada believed that this issue had to be properly discussed and given a good hearing in WG2, especially because the IRG was never given a direction regarding the aspect of user requirement as something to consider from WG2. Also this WG2 meeting would have been the last opportunity to make any changes. We are satisfied that the discussion did take place and WG2 has considered the pros and cons.
u) Mr. Mike Ksar: There is no consensus - majority of the views expressed is not in favour of splitting the Vertical Extension B ideographs. We should note the seriousness of the decision that is being taken. I do hope that the user requirements as expressed in the Canadian contribution can be met in a very timely manner -- the IT industry is encouraged to speedily implement of Part 2. I want WG2 to be aware that this decision does not get taken up to higher levels in JTC1.
v) Dr. Umamaheswaran: Canada will not be the one to take this up any further beyond WG2. This WG2 meeting was the last chance for the IRG members to consider the proposed option especially since WG2 did not have this subject on its agenda and had not given any direction along these lines to the IRG in any of the previous meetings.

Disposition: The Canadian proposal for splitting Vertical extension B was not considered to be of significant benefit by WG2.

Relevant resolution:
M38.3 (Request for considering splitting Extension B):   Canada, Japan and UK abstain
WG2 has examined the request for consideration for splitting Vertical Extension B, in document N2183 from Canada, and indirectly referenced by Finland in its negative ballot response to CD 10646-2 and decided against splitting the Vertical Extension B based on insufficient merits to justify the splitting, and in the interests of not delaying progression of CD 10646-2.

8.14 *Proposed Lithuanian repertoire additions*

Input documents:
N2075R   Proposal to add Lithuanian Accented Letters to 10646-1; Lithuanian Standards Board; 1999-08-15
N2176R   Implications of Normalization on Character Encoding; Unicode Consortium – Mark Davis; 2000-03-07
N2189   Identification of Decomposed Characters in 10646-1; Finland, Germany, Iceland – Erkki Kolehmainen, Marc
           Küster, Þorgeir Sigurdsson; 2000-03-14

Mr. Mike Ksar: Document N2189 - from Finland, Germany and Lithuanian expert - is a request for an
Annex to indicate how a fully composed character can be identified.

Discussion:

a)   Dr. Ken Whistler: The problem behind document N2189, is how one would specify the repertoire
     in a collection. The repertoire is spelled out as a list of characters. Some of these characters are
     listed directly as an enumeration of UCS identifiers. Others are encoded only as combined
     characters. One could specify the combining mark -- but it does not allow one to specify a
     specific set of pre-composed characters. If some Lithuanian characters can be encoded only by
     combining sequences then there is no elegant mechanism in the standard to specify the set of
     sequences as part of a Collection.

b)   Mr. Michael Everson: I am in complete agreement with the Lithuanian requirements. However, I
     am concerned that ISO/IEC 10646 will become the registration vehicle for collections. There are
     other projects such as the Alpha project in CEN TC304 that could have been used. The best
     way one could accommodate these requirements would be to put a definition outside of the
     standard on a web site.

c)   Dr. Umamaheswaran: We have to keep in mind that one of the reasons that we created the
     Collections was to defuse a separate work item in WG3 on specifying yet another registry to
     define sub-repertoires of ISO/IEC 10646. If we provide a mechanism to specify elegantly a
     sequence also within a collection it will provide a solution to the stated requirement.

d)   Mr. Michel Suignard: I think we should not entertain this request. There is a danger of it
     becoming a specification of what is in a language's alphabet etc.

e)   Dr. Ken Whistler: A way to specify a collection that is not inside the standard, would be to specify
     outside the standard -- here is a list of characters, here is a list of valid sequences etc.

f)   Mr. Michael Everson: We have similar process of identifying repertoires in the CEN/TC 304 Alpha
     project.

g)   Mr. Christopher Fynn: This kind of collection could be a method a national body can specify its
     own?

h)   Mr. Mike Ksar: A National Body can do its own -- however, the danger is that they can easily do
     their own thing and can easily go out of synch with ISO/IEC 10646. This might be an issue that
     could be part of a Locale.

i)   Mr. Michel Suignard: The collection could just include the combining marks needed along with
     the base characters. One does not specify any more other than selecting a FONT with the
     combined characters.

j)   Mr. Takayuki Sato: We cannot get a solution today. There was a requirement to identify the sub-
     repertoire. We killed that project by providing the users with a Collection Identifier. There was no
     conformance clause that could be enforced.

k)   Dr. Ken Whistler: We have not talked about another item in the proposal so far. The proposal is
     to create an Annex, which contains combined characters.

l)   Dr. Umamaheswaran: Reiterated the CEN TC304 discussion -- as to their requirement.

Action Item: Mr. Mike Ksar - We should carry this item forward to the next meeting. Feedback is required
from national bodies.

8.15 Implications of Normalization on Character Encoding

Input document:
N2176R   Implications of Normalization on Character Encoding; Unicode Consortium – Mark Davis; 2000-03-07
Document N2176 R - is a liaison contribution from the UTC. It explains in a summary form the impact on why fully formed character encoding can pose problems from Normalization algorithm UTR.

Action item: Dr. Umamaheswaran to take N2176R and incorporate it into Principles and Procedures document.

8.16 Further discussions on zero-width ligator

Input document:
N2141   On the need for a zero-width ligator; Everson; 1999-11-29
N2147   Further discussion of the zero-width ligator; Everson; 2000-01-04
Mr. Mike Ksar: These documents are for information. The UTC has considered these and after extensive discussions has decided that by explaining how the existing ZWJ can be used to perform the function, these proposals become only for information. A Unicode Technical Report on this topic may also be in the works.

8.17 Feedback on Armenian from Armenia

Input document:
N2190   Cover letter on Armenian plus 3 attachments. AMST 34.001-99, AMST 34.002-99, Armenian in 10646-1; Armenia – Levon Aslanyan; 2000-03-14
Mr. Mike Ksar: Document N2190 contains the correspondence between Armenia and SC2 secretariat. There was an attachment of AMST 34.001-99. Mr. Mike Ksar read out the response sent to Armenia asking for more information and what Armenia is asking WG2 to do, and also pointing them to what needs to be done for WG2 experts to be able to consider their contribution. The response from Armenia was also read out - yet the information was not clear as to what they want.
Discussion:
a)   Mr. Michael Everson: I have analyzed their request. It requires us to replace one table in ISO/IEC 10646 with another. The proposal is to change the names of some Armenian characters and move some around.
b)   Mr. Michel Suignard: It is really disappointing that after all the work we have done and came up with a solution for them. One new character was added, and we had unified others. Obviously we cannot accept reordering or rename - we can do a delta. They are also asking for more characters to be added. If there are missing characters we can entertain those.
c)   Mr. Mike Ksar: Can you and Mr. Michel Suignard prepare a response to them -- and I will send the response on behalf of WG2. I have informed SC2 that we can respond to them directly.
Action Item: Messrs. Michael Everson and Michel Suignard to assist in preparing the response to be sent to Armenia.

Relevant resolution:

M38.17 (Feedback to Armenia):   **Unanimous**
With reference to document N2190 on Armenian, WG2 instructs its convener to prepare a response to their recent feedback based on the discussion at meeting M38 confirming the following principles:
- Existing characters in the standard cannot be reassigned other code positions.
- Existing character names in the standard cannot be changed. Informative clarifying text regarding usage of names of scripts can be considered.
- No duplicate characters are added if they can be unified with existing characters.
used in the development of ISO/IEC 10646, and inviting them to participate at the next WG2 meeting in Greece, in September 2000.

8.18 Proposal for encoding additional Math symbols in BMP

Input document:
N2191R   Proposal for encoding additional mathematical symbols in BMP; US national body; 2000-03-14
Dr. Ken Whstler: Document N2191 was distributed prior to the meeting. Corrected code charts were distributed at the meeting as N2191R. This is a fairly large proposal - for encoding additional Math Symbols in the BMP. It contains the accumulated results of almost two years of document trails, discussion with experts, and active cooperation with STIX group (a sub group of Scientific and Technical Information Publication consortium, a group of major publishers of math and other science, technology texts). It was clear that there were a number of math symbols in the standard. This was causing problems for them to adopt the UCS. They approached the Unicode consortium to adding several of the characters they wanted. At the last meeting in WG2 we saw the first half of the net results of the collaboration. It contained the Mathematical Alphabetic Symbols for Plane 1. The present document N2191 is the other half of the set of characters required for Mathematical and Scientific publishing. The first part contains all the references including references to L2 documents used during the discussion. The number of characters requested is 951 - it is all detailed in the Proposal Summary Form. It has also a set of charts with proposed glyphs and code positions etc. (replace with new charts provided at the meeting). There are still some missing glyphs. The charts include many already existing characters and show where new characters are proposed. The same program that created the Unicode publication was used to create these charts. Annex 3 - shows the complete list of glyphs and proposed names etc. prior to the charts in Annex 2. If there are missing glyphs in Annex 2, we can take a look at Annex 3. This is an aid to the reviewers. There is an Annex 4 - a variation selector character - is proposed to indicate a variation of a character that is not encoded separately in the proposal. There is a comment from American Mathematical Society on the proposal also.

The US National Body is requesting that we get sufficient consensus so that we can proceed with the preparation of the next draft for a future amendment to allow us to meet the stated user community's requirements.
Discussion:
  d) Mr. Mike Ksar: If you want to provide input now, it is appropriate. You can also review and provide feedback after the meeting -- but do not wait too close to the September meeting. By September we should have the draft of an amendment to the standard. I would encourage interested experts to have discussion on the email and send feedback to the US to enable them to prepare an amendment text.
  e) Mr. Michael Everson: One of the things we will be looking at are the names towards more consistency with the standard. We will be taking the Japanese symbols and any others that may be in the bucket to see if they can be included. I intend to provide lot of useful feedback on these.
  f) Mr. Christopher Fynn: I will see that this document is circulated to UK experts for comment. The proposal seems to be very well done.
  g) Mr. Mike Ksar: Even before the 1993 edition, we had a request. SC18 had the similar requirement - we suggested they make a proposal. Many people have worked on this proposal.
  h) Dr. Umamaheswaran: The special nature of the Variant Selector Character 2063 - should be highlighted to WG2 experts.
  i) Dr. Ken Whistler: The character 2063 - is shown as a square bracket with "vs" in it. It is a VARIATION SELECTOR. It is conceptually like the three Mongolian Variation Selectors to deal with the variant forms of Base Mongolian characters, without having to encode all these forms. There is a similar set of characters in the Math collection as well. The Base Character plus the VS can be used to show these forms. Annex 5 gives the full explanation on this character.
  j) Mr. Michel Suignard: I see an issue - page 10 in the new charts - these seem to be open. Have you done the due process of duplication with Plane 1?
  k) Dr. Ken Whistler: 2145 to 2149 are supposed to be OPEN FACE ITALICS -- this is a known GLYPH issue and will be fixed. There are a number of glyph problems in this set. If we do find duplicates from Plane 1, the duplicate characters from the proposal should be removed.
  l) Mr. Michael Everson: The symbols that are represented by using the VARIATION SELECTOR -- should these be part of the standard?

m) Dr. Ken Whistler: Yes. The Annex will act as a registration of the specific set of variants that are valid with the use of VS. The annex must be part of the Amendment text when we prepare it.

n) Dr. Ken Whistler: As soon the glyphs are fixed -- co-authored by Dr. Asmus Freytag -- I will post these to the site. I will take an action item to prepare a list of Glyphs, which are known to be defective, to the list of identified experts.

o) Mr. Mike Ksar: I suggest that we have an action item -- to get feedback to the US (Dr. Ken Whistler) - so that it can be assessed and proper response be prepared to the feedback submitter. The goal is to be able to propose an amendment text and an NP incorporating all the feedback. The WG2 experts identified are: Messrs. Michael Everson, Mr. Christopher Fynn, Professor Kim, Zhang Zhoucai, DPR Korea, Umamaheswaran and Takayuki Sato . NB-s are encouraged to contact the appropriate Mathematical Societies

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Relevant resolution:
M38.9 (Math Symbols):   **Unanimous**
WG2 provisionally accepts the 951 Mathematical Symbols for encoding in the BMP, as proposed in document N2191R. The US national body is invited to prepare a revised proposal reflecting feedback received from the experts group on the subject before the next meeting M39 in September 2000. WG2 intends to include this proposal in the working draft of the next Amendment to 10646-1: 2000 at the next meeting..

8.19   *Request for collection ids*

Input documents:
N1881   Request for Collection Identifiers for European Repertoires; Finland & Ireland; 1998-09-22
N2080   Request for two additional collections in ISO/IEC 10646-1; Everson; 1999-09-05
N2211   Request for collection id for Multilingual European subrepertoires (MES); Finland and Ireland; 2000-03-22
Mr. Michael Everson: In Sept 1998, Finland and Ireland had informed WG2 of the work on multilingual European sub-sets. The CEN Workshop Agreement 13873, contains 3 MESs. MES-1 contains 300+ characters , MES-2 1052, MES-3 fixed 2019? and MES-3 is a non-fixed collection. We would like WG2 to assign four collection identifiers for these. WAP (Wireless Access Protocol) consortium dealing with Telephone handsets are considering these subsets to be inserted in the handsets, since it is useful for small handheld device fonts etc. Related to these the Irish NB had requested two additional collection identifiers for L to R and R to L presentation forms. FB00 to FB4F is a single collection called Alphabetic Presentation Forms. For some implementations it is inconvenient to have both L to R and R to L. See document N2080. The request for 6 collections is made to WG2.

Discussion:
a) Dr. Umamaheswaran: Ireland was asked to take back as a recommended position to enumerate the L to R collections. It looks like the CWA requirements have been somehow met without the latter to two. It looks like the latter two are now -- nice to have.

b) Mr. Michael Everson: We took it back to the CWA - and the workshop included the whole Presentation Form collection instead of splitting up these into two. Ireland thinks that the latter two are required.

c) Dr. Ken Whistler: I have talked about collection identifiers for MESs - I do not see there will be an opposition. Pressed to the wall they may not care. They may or may not support the latter two collections.

d) Mr. Mike Ksar: It is important to distinguish between nice to have and must have.

Disposition: Referring to document N2211 - Four collection identifiers for the MESs in CWA are accepted. Not sufficient evidence was given for the R to L and L to R collections.

Relevant resolution:
M38.13 (Collection identifiers for Multilingual European Subsets (MES)):   **Unanimous**
WG2 accepts the request and instructs its editor to assign four collection identifiers for each of the Multilingual European Subsets - MES-1 (fixed collection), MES-2-(fixed collection), MES-3A (non-fixed collection) and MES-3B (fixed collection), as requested in document N2211, for inclusion in a future amendment to ISO/IEC 10646-1: 2000.

8.20   *Ideographic symbols from JIS*
Input document:

N2195   Rationale for non-Kanji; JSC, Japan; 2000-03-15

Mr. Takayuki Sato: Document N2195 is response to request for more evidence on some of the early request for symbols from JIS X0213. The evidence presented were not accepted in UTC. I would like to get the opinion if the evidence submitted is sufficient or not. The second question is how to proceed with our earlier request in documents - N2092, N2093, and N2094.

Discussion:

a) Dr. Ken Whistler: A number of us had an ad hoc on these:

  i) The plus symbols seem to be explained enough.

  ii) The Dental symbols are sufficiently explained - these are box-drawing characters overlaid in specific manner.

  iii) The name of DOUBLE HYPHEN will be potential problem - it could be called KATAKANA DOUBLE HYPHEN to avoid confusing with potential European uses. The evidences seem to be OK.

  iv) We still have a problem with two parentheses. The name should be either DOUBLE or WHITE - LEFT and RIGHT. Is this a DOUBLE or a WHITE one? If it is a DOUBLE, then it could be compatibility mapping of two single ones in a row. The published example seems to show a WHITE one. There is a glyph identity problem here. In Japan, you do not want two separate things for these.

  v) On the circled bullet, can this be unified with 29BF - math symbols proposal (to be discussed in this meeting); same for, with 2051 - the double asterisk.

  vi) Iteration Mark: -- is this different from the Kanji iteration mark at 3005 - a vertical form of it, or is it truly a different character? For example, are these to be used simultaneously in a piece of text? MASU MARK - the evidence presented seems to be sufficient.

  vii) The evidence provided for KATAKAN DIGRAPH KOTO and HIRGANA YORI - there seems to some justification given on their use in the text that we can consider at the UTC.

  viii) PART-ALTERATION MARK - we can see its use in the example. How can we explain this to someone on how it is used? What is its function? It is the start of a SONG. One may want to look at the Tibetan section -- for example, start of poem.

  ix) SESAME DOTS: Is there a distinction between the BLACK SESAME DOT and the IDEOGRAPHIC COMMA. Given the evidence here, it looks like it has the same GLYPH - different meanings. It is placed on the side of the text. There is an encoding model for these -- it may be preferred to have these as part of a STYLE than as a single character in the text. One would need it as a single character for explaining what these mean etc. and for transcoding to a given standard. However, one should use the STYLE SHEET to mark them.

  x) The evidence provided for the item 1 to 12 characters should be sufficient for UTC consideration.

  xi) 3.1 - The latter part of the document is more controversial. The things like circled numbers should be really implemented by style approaches than encoding several of these as separate characters.

  xii) 3.2 - The objection to these is similar to the Lithuanian problem. One should be able to compose these from existing components - can cause problem for normalization.

  xiii) 3.3 - My personal assessment of the rising and falling symbols is correct as described in Unicode 2.0, and I disagree with the Japanese expert's interpretation.

b) Mr. Takayuki Sato: There is some unification between WHITE ones and DOUBLE ones.

c) Dr. Ken Whistler: Looks like there is some ambiguity in the Japanese standard - on these Parentheses. Going forward to ISO/IEC 10646 we may have to carry these as two separate entities. The problem is that we do not have a style model in ISO/IEC 10646 to be able to do circled numbers etc. We know that UTC will be consider N2195 at its next meeting. It is my assessment that many of these characters will be judged to be OK. I would like to have a streamlined process -- so that we can incorporate these into a larger collection of symbols that we could look at the next meeting. Can we get consensus at this meeting?

d) Mr. Takayuki Sato: This is a take back for comments. We have to come back on the questions regarding the Rising and Falling symbol and the Kana extensions. The number of enclosed numbers is taken from some Government requirement. We still have an open question on how many do we need? It is possible that they will come up with more. For the circled numbers there are requests from DPR Korea. If these are added, they could also be used to map to KPS.

e) Mr. Christopher Fynn: Is there a white space on both sides of the brackets? No - it is how the glyph fits in a box. If we had combining digits we could construct them. One could construct using numbers and circles etc..

f) Mr. Michel Suignard: The style sheet direction is the way the technology is progressing.

g) Mr. Mike Ksar: The contribution from Japan has made several clarifications. There is some more work to be done and feedback is sought on some more items. I would encourage email discussion on this topic before the next meeting -- between experts who are interestedd on the topic. Messrs. Ken Whistler, Hideki Hiura, Michael Everson, other experts from Japan.

Action items Experts are to work via email to address the open issues -- Japan to get feedback on still outstanding items. Dr. Ken Whistler to get feedback from UTC.

Relevant resolution:
M38.10 (Symbols from JIS X 0213):   **China abstains**
WG2 provisionally accepts the proposed symbols described under items 1 through 12 in document N2195 for future encoding in the BMP. Their names, shapes and code positions are to be synchronized with the processing of Mathematical Symbols proposal (see resolution M38.9 above), based on feedback to the experts' group on this topic.

8.21 *Request for additional Yi Radicals, Ireland*

Input document:
N2207   Request for additional Yi Radicals; Everson; 2000-03-21
Document N2207 - proposes 5 Yi radicals that were rejected during the balloting of the PDAM. The request is coming from Ireland in response to an action item during the disposition of ballot comments. We have not proposed a new request form - see N2187(?).

Discussion:
a) Mr. Chen Zhuang: This is the first time I am reading this document. We need to ask our experts and will give feedback after this meeting. I can agree to these in principle.

b) Mr. Mike Ksar: Could you provide feedback to Mr. Michael Everson before the next amendment processing time.

c) Dr. Ken Whistler: I do not see any particular problem. As long as China can provide a confirmation US will not have any problem associated with these.

Relevant resolution:
M38.8 (Yi radicals):   **Unanimous**
WG2 provisionally accepts the five Yi radicals, their code positions, names and shapes, as shown in document N2207, subject to verification and feedback on these characters from the Chinese Yi experts.

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9 Architecture issues

9.1 Proposal to restrict the range of code positions

Input document:
N2175   **Proposal to restrict the range of code positions to the values up to U-0010FFFF; Unicode Consortium, Mark Davis; 2000-03-07**

Mr. Mike Ksar: In 1993, at the meeting in Washington DC, when we created UTF-16 Amendment 2, we decided that we did not need beyond Plane 16, including what is felt to be adequate allowance. Since then, implementations have found what is considered to be an inconsistency between the standard and UTF-16. The proposal is to issue a Technical Corrigendum to fix this inconsistency, so that UCS-4 and UTF-16 will be compatible. If one does not go beyond Plane 16, then UCS-4, UTF-8 and UTF-16 will all behave identical. If we do not do this, there is some discussion about in the document N2175.

Discussion:
a) Dr. Umamaheswaran: WG2 experts and NB-s should note that the inconsistency is only to the extent of the Private Use Groups and Planes that are currently permitted in the standard. UTF-16 cannot reach the PU Groups and Planes beyond plane 16 and this is the inconsistency in the standard.
b) Professor Kim: If one uses only less than Plane 16, there is no practical problem.
c) Dr. Ken Whistler: One way to look at this is that -- if one uses the Private Use areas in BMP or Planes 15 and 16 -- are really ALLOCATED. What we are trying to ensure that the Allocated space is contained within the first 16 planes. By eliminating the provision of PU Groups and Planes and mark that space reserved.
d) Professor Kim: You are not proposing to change the concept of UCS-4. You are only trying to remove the provision of Private Use Area.
e) Mr. Takayuki Sato: The goal is not to redefine UCS-4. It will mark the areas beyond Plane 16 as RESERVED.
f) Dr. Ken Whistler: The goal is to specifically enable UCS-4 towards being consistent with UTF-16. The proposal is to change only the clauses related to the Private Use groups and planes. There is no other change to the standard. The implication is that we will remove the private use groups and planes beyond plane 16. We do have Private use planes 15 and 16 already available. If any one wants to go beyond the two planes worth, techniques like using pairs of these to go beyond can be used.
g) Professor Kim: Should this be a Corrigendum or an Amendment.
h) Dr. Ken Whistler: The UTC and US perspective is that Amendment 2 introduced the hidden inconsistency and it should be a technical corrigendum.

Relevant resolution:
M38.6 (Restriction of encoding space):   **Unanimous**
WG2 accepts the proposal in document N2175 towards removing the provision for Private Use Groups and Planes beyond Plane 16 in ISO/IEC 10646, to ensure internal consistency in the standard between UCS-4, UTF-8 and UTF-16 encoding formats, and instructs its project editor prepare suitable text for processing as a future Technical Corrigendum or an Amendment to 10646-1: 2000.

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10 Publication issues

10.1 Future amendment to ISO/IEC 10646-1: 2000

Mr. Mike Ksar: ISO/IEC FCD 10646-2 will be circulated for SC2 ballot before our next meeting. There are some dependencies on Part 1 to be amended. We also have a number of characters accepted for inclusion in the BMP in the bucket. There is also an architectural amendment we have accepted. We should resolve to instruct our editor to take the necessary action to prepare an amendment to Part 1 including all these.

Relevant resolution:
M38.14 (Future amendment to 10646-1: 2000):   **Japan Abstains**
WG2 instructs its editor to prepare the text for sub-division of work and a working draft for an amendment for consideration and approval at meeting 39 in September 2000, incorporating all the accepted changes

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to date.

11   IRG status and reports

11.1   IRG Resolutions

Input document:
N2143   IRG #14 Resolutions – IRG N 711; IRG; 1999-12-09
Mr. Zhang Zhoucai: document N2143 contains the IRG resolution. One of the items in IRG is called non-cognate characters. It is being discussed. De-unification based on non-xxx criterion will be entertained. It is very academic and this committee may not be interested. If we do not have rules we will have problems in the future. We are refining the interpretation of this rule. Another issue is to consider CJK Extension C - for consideration in 19--23 June 2000 in Taipei - hosted by TCA. The meeting date has changed from May. DPR of Korea has been given the information about the meeting for them to attend the meeting.

11.2   Change in name of HKSAR Hanzi Source

Input document:
N2145   Change in name of HKSAR Hanzi Source – IRG N715; HKSAR, Hong Kong; 1999-12-09
Already accommodated in Part 2 disposition of comments.

11.3   Comments on JCS Proposals

Input documents:
N2142   The response to WG2 resolution M37.16: CJK compatibility ideographs from JIS (WG2 N2104) – IRG N710; IRG; 1999-12-09
N2144   Comments on JCS Proposals – IRG N 713R; Unicode; 1999-12-08
Already accommodated in Part 2 disposition of comments.

12   Defect reports

None to consider at this meeting.

13   Liaison reports

There were liaison reports concerning the Unicode Consrtium and the w3c i8n working group. There were no liaison reports regarding ITU, IETF or TC304.

13.1   Unicode Consortium

There may be a written report from Dr. Asmus Freytag. The Unicode Consortium has published Unicode 3.0.

There is currently no liaison officer nominated from SC2 to Unicode. The convener is willing to act as the liaison.

Relevant resolution:
M38.19 (Liaison from SC2 to the Unicode Consortium):   Unanimous
Recognizing there is no current liaison representative from SC2 to the Unicode Consortium, WG2 nominates its convener Mr. Mike Ksar to this role. WG2 requests SC2 to process this liaison and the nomination.

13.2   W3C

Input document:
N2140   Proposal for establishment of Category C Liaison with the World Wide Web Consortium (W3c) – Statement of expected beneft and responsibilities; Ksar/SC2 Secretariat; 1999-10-07
Document N2140 was distributed for information to WG2 members. There was no discussion.

14   Other business

14.1   Web Site Review

DKUUG has been providing an excellent support to WG2 by hosting the web site for use by WG2. The convener will be relying more on this site for distribution of documents and cut down on the paper copy distribution by limiting the paper copy to only those WG2 experts for whom the web access still is problematic. All national body contacts are expected to have web access and facilities for document retrieval and distribution by now.

Relevant resolution:
M38.23 (Appreciation to DKUUG for web services):   **By Acclamation**
WG 2 thanks DKUUG, in particular Mr. Keld Simonsen, for its continued support of the web site for WG 2 document distribution and the e-mail server.

14.2 Future Meetings

We have received information from Greece. The meeting M39 dates have changed slightly -- WG3 meets September 14th all day and 15th morning; WG2 meets 15 the Friday PM, through Thursday 21st Noon; SC2 meet Thursday PM and Friday 22nd. The meeting start date has changed. The final meeting notice will be sent after getting formal confirmation from Greece.

Relevant resolution:
M38.20 (Future meetings):   **Unanimous**
WG 2 confirms the following future meeting schedule:

-   Meeting 39: 15 to 21 September 2000, Greece
        (along with SC2 plenary and SC2/WG3 meetings)
        (*Note*: change of dates from resolution M37.18).
     -   Meeting 40: March 2001 - US West Coast
     -   Meeting 41: September 2001 - Asia (Location to be confirmed)
     -   Meeting 42: March 2002 - Ireland

WG 2 accepts and confirms the following IRG future meeting schedule:

-   IRG 15: 19--23 June 2000 in Taiwan (Host: Taipei Computer Association)
     -   IRG 16: 4 -- 8 December 2000 in Korea
        (Note: changed meeting dates from resolution M37.18)

15 Closing

15.1 Approval of Resolutions of Meeting 38

Output document:
N2204   Resolutions of Beijing meeting 38; WG2; 2000-03-24

Canada, China, Ireland, Japan, Taipei Computer Association (Liaison), UK, USA, the Unicode Consortium (Liaison), and DPR of Korea (Guest) were represented when the following resolutions were adopted. **36** delegates representing **8** national bodies, **2** liaison organizations and **2** guest countries, were present at different times during the meeting (see attached attendance list).

TCA/CNS 11653 should be used for references to CNSs.

May 2000 is the target date for FCD text. This is what we need for closing the FCD ballot for disposition of comments in September 2000 meeting. IRG is requested to produce their input to the editor as early as possible so that we can meet the schedule. IRG editor can produce the material within 3 weeks from today. The source information is needed by the editor from IRG, more importantly than the charts. Editor and IRG editor to work together.

China explained their objection to JIS X0213 compatibility characters: Chinese linguists have different opinion about whether these characters should be in the compatibility zone. China objects to inclusion of standards that are defined after publication of ISO/IEC 10646 are questionable.

Action item - M38.12 -- include in Principles and Procedures document.

Appreciation to the host. Thanks to Mr. Chang and CESI staff.

Schedule for Amendment to Part 1. There is a known collection of changes that are required to Part 1 so that Part 2 can go ahead. This will be included in the next amendment to the standard. Japan abstains - the NB feels that NP is required for amendments.

15.2 *Appreciation*

Relevant resolutions:
M38.21 (Appreciation to project editor and contributors)   By Acclamation
WG2 thanks its convener, project editor, its contributing editors, the IRG rapporteur, the IRG editor, and the Unicode Consortium for their dedicated effort in the successful completion and delivery of the PDF files for 10646-1: 2000 to ITTF on schedule.
M38.22 (Appreciation to IRG)   By Acclamation
WG2 thanks the members of IRG, the IRG editor and its rapporteur for their continued valuable contribution on CJK-related items of WG2.
M38.24 (Appreciation to the host):   By Acclamation
WG 2 thanks its hosts, Chinese Electronics Standardization Institute, CESI, and their staff Messrs. Wang Lijian, Chen Zhuang, Chen Yunfeng, Duan Jianmin, Ms. Dai Hong and Ms. Jin Qian, for hosting the meeting, for providing excellent secretarial and administrative support, and for their kind hospitality.

15.3 *Adjournment*

The convener adjourned the meeting at 13:00h. The final resolutions document N2204 were made available soon after.

16   Action Items

16.1 *Action items from previous WG 2 meetings (numbers 25 to 32)*

All the action items from meeting 25 in Antalya, Turkey, meeting 26 in San Francisco, CA, USA, meeting 27 in Geneva, Switzerland, meeting 28 in Helsinki, Finland, meeting 29 in Tokyo, Japan, meeting 30 in Copenhagen, Denmark, meeting 31 in Québec City, Canada, meeting 32 in Singapore, meeting 33 in Heraklion, Crete, Greece, meeting 34 in Redmond, WA, USA, and meeting 35 in London, UK, have been either completed or dropped.

16.2 *Outstanding action items from meeting 36, Fukuoka, Japan*

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 of document N2103),	Status
AI-36-3	**Editor of ISO/IEC 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson**	
	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:	
r	M36.19 (New character bucket M36): With reference to document N1941, WG 2 accepts the proposed Triangular Overlay character, with the new name COMBINING ENCLOSING UPWARD POINTING TRIANGLE, with its proposed shape, and allocates it the code position 20E4 in the BMP. WG 2 instructs its project editor to create a new list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1. M37 and M38 - in progress.	
AI-36-6	**Ad hoc group on principles and procedures (lead - Dr. V.S. Umamaheswaran)**	
a	M36.20 (Criteria for encoding symbols): WG 2 accepts the Criteria for Encoding Symbols proposed in document N1982 in principle and instructs the ad hoc group on Principles and Procedures to incorporate the material from this document into the WG 2 standing document on Principles and Procedures, document N2002. M37 and M38 - in progress.	
b	to take note of including IDEOGRAPHIC VARIATION INDICATOR at 303E and remove GENERAL VARIATION MARK from FFFB in the roadmap related work. M37 and M38 - in progress.	
c	to incorporate agreed upon parts of roadmap documents N1949 BMP and N1955 Plane 1 into the principles and procedures document. M37 and M38 - in progress.	

16.3 *Outstanding action items from meeting 37, Copenhagen, Denmark*

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – with the corrections noted in section 3 above.)	Status
AI-37-6	**Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)**	

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – with the corrections noted in section 3 above.)	Status
a	with assistance from the Unicode representative, to include a warning in the Principles and Procedures document to proposers of future precomposed characters into the standard on the effect of normalization UTR on the integrity of the characters. M38 - in progress,	
AI-37-11	**Japanese national body (Mr. Takayuki Sato)**	
b	to communicate document N2055 - Comment on Proposal for Nepalese Script, Hugh McG. Ross, 1999-07-29, as feedback to Nepal. M38 - in progress,	
AI-37-13	**Germany (Mr. Marc Küster)**	
a	with reference to Encoding Egyptian Hieroglyphs, is invited to contact the German experts, encourage them to participate and report to them on the WG2 discussion, and to supply the contact names etc. to Messrs. Michael Everson and Rick McGowan. M38 - in progress,	

16.4 *New action items from meeting 38, Beijing, China*

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
AI-38-1	**Meeting Secretary - Dr. V.S. UMAmaheswaran**	
a	To finalize the document N2204 containing the adopted meeting resolutions and send it to the convener as soon as possible.	
b	To finalize the document N2203 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	
AI-38-2	**Convener - Mr. Mike Ksar**	
a	To draw attention of SC2 to resolution M38.19 (Liaison from SC2 to the Unicode Consortium): Recognizing there is no current liaison representative from SC2 to the Unicode Consortium, WG2 nominates its convener Mr. Mike Ksar to this role. WG2 requests SC2 to process this liaison and the nomination.	
b	To act on Resolution M38.18 (Feedback to JTC 1 SG on Strategic Planning): With reference to the Collaborative Tools mentioned in resolution 8 on Project Management Tool, in document N2178, WG2 instructs its convener to communicate through SC2 to JTC1, about SC2's special requirements of being able to prepare and display documents containing shapes of graphic characters that are not yet in any standard or not yet supported by easily available tools.	
c	To communicate to Armenia on resolution M38.17 (Feedback to Armenia): With reference to document N2190 on Armenian, WG2 instructs its convener to prepare a response to their recent feedback based on the discussion at meeting M38 confirming the following principles: 1. Existing characters in the standard cannot be reassigned other code positions. 2. Existing character names in the standard cannot be changed. Informative clarifying text regarding usage of names of scripts can be considered. 3. No duplicate characters are added if they can be unified with existing characters. used in the development of ISO/IEC 10646, and inviting them to participate at the next WG2 meeting in Greece, in September 2000. (Messrs. Michael Everson and Michel Suignard are to assist in preparing the above response.)	
d	To act on Resolution M38.16 (Feedback to IEC - 3B on mapping of technical symbols): With reference to documents N2171 - IEC 3B/2xx/CDV, and N2174 on correspondence (mapping) between ISO/IEC 10646-1 and IEC 61286-2, WG2 instructs its convener to prepare and forward to the responsible IEC committee, a suitable response with assistance from Dr. Ken Whistler.	
e	To carry forward agenda items from M37 - these are listed as action item(s) on national bodies giving them another opportunity to review and feedback on the relevant documents (see the last group of action items for M38).	
AI-38-3	**Editor of ISO/IEC 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson**	
	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:	

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
a	Resolution M38.5 (Editorial Corrigenda to ISO/IEC 10646-1: 2000): WG2 adopts the editorial corrections, which have already been incorporated in the final text sent to ITTF, as described under section B in document N2158. In addition, WG2 accepts the following proposed editorial corrigenda: - section A in document N2158, with additional input from the meeting, and - the correction of glyphs for the Khmer table as shown in document N2210. WG2 further instructs its project editor to forward these Editorial Corrigenda to SC2 for further processing. WG2 requests SC2 to communicate its desire to ITTF that these corrigenda be included if possible in the planned CD-ROM publication of ISO/IEC 10646-1: 2000 (E) and (F).	
b	Resolution M38.7 (Additions to the BMP - Miscellaneous): WG2 accepts to encode the following in the BMP of ISO/IEC 10646: - 17DD - KHMER SIGN LAAK, with the glyph as shown in document N2164. - 8 Cyrillic Sámi characters, with the shapes as shown on page 4 of document N2173: 048A - CYRILLIC CAPITAL LETTER SHORT I WITH TAIL 048B - CYRILLIC SMALL LETTER SHORT I WITH TAIL 04C5 - CYRILLIC CAPITAL LETTER EL WITH TAIL 04C6 - CYRILLIC SMALL LETTER EL WITH TAIL 04C9 - CYRILLIC CAPITAL LETTER EN WITH TAIL 04CA - CYRILLIC SMALL LETTER EN WITH TAIL 04CD - CYRILLIC CAPITAL LETTER EM WITH TAIL, and, 04CE - CYRILLIC SMALL LETTER EM WITH TAIL. - 20B1 - PESO SIGN, with the shape as shown on page 1 of document N2161 (a P with two horizontal bars) - 237D - SQUARE FOOT, and, 234A - PROPERTY LINE with shapes similar to what appear in document N2184. - 20B0 - GERMAN PENNY SYMBOL with shape as shown in document N2188. WG2 further instructs its project editor to add these characters to the list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1 (based on resolution M36.19 - New character bucket M36).	
c	Resolution M38.11 (CJK compatibility ideographs from JIS X 0213): WG2 accepts the proposal for 61 compatibility ideographs from Japan for future encoding in the BMP, at positions FA30 to FA6B, with the shapes and names as shown in document N2197. Japan is to provide additional information on these compatibility ideographs suitable for inclusion in the standard per discussion at meeting 38 (see also document N2142). WG2 further instructs its project editor to add these characters to the list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1 (based on resolution M36.19 - New character bucket M36).	
d	Resolution M38.13 (Collection identifiers for Multilingual European Subsets (MES)): WG2 accepts the request and instructs its editor to assign four collection identifiers for each of the Multilingual European Subsets - MES-1 (fixed collection), MES-2-(fixed collection), MES-3A (non-fixed collection) and MES-3B (fixed collection), as requested in document N2211, for inclusion in a future amendment to ISO/IEC 10646-1: 2000.	
e	Resolution M38.8 (Yi radicals): WG2 provisionally accepts the five Yi radicals, their code positions, names and shapes, as shown in document N2207, subject to verification and feedback on these characters from the Chinese Yi experts.	
f	Resolution M38.6 (Restriction of encoding space): WG2 accepts the proposal in document N2175 towards removing the provision for Private Use Groups and Planes beyond Plane 16 in ISO/IEC 10646, to ensure internal consistency in the standard between UCS-4, UTF-8 and UTF-16 encoding formats, and instructs its project editor prepare suitable text for processing as a future Technical Corrigendum or an Amendment to ISO/IEC 10646-1: 2000.	
g	Resolution M38.14 (Future amendment to ISO/IEC 10646-1: 2000): WG2 instructs its editor to prepare the text for sub-division of work and a working draft for an amendment for consideration and approval at meeting 39 in September 2000, incorporating all the accepted changes to date.	
AI-38-4	**Editor of ISO/IEC 10646-2: Mr. Michel Suignard**	
	to take note of the following and incorporate the needed text in the next draft of ISO/IEC 10646-2:	
a	Resolution M38.2 (CJK compatibility ideographs from TCA/CNS 11643):	

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
	WG2 accepts the proposal for 527 compatibility ideographs from the Taipei Computer Association for encoding in Plane 2, at positions F800 to FA16, with the shapes and source identifications as shown in document N2159R. WG2 further instructs its project editor to include these characters, along with suitable additional information on these compatibility ideographs per discussion at meeting M38, in the final text for ISO/IEC FCD 10646-2 being prepared per resolution M38.4 below.	
b	Resolution M38.4 (ISO/IEC CD 10646-2): WG 2 accepts the disposition of comments for the ballot on ISO/IEC CD 10646-2 in document N2217, which reflects the results of discussion at this meeting M28, and instructs its project editor to prepare the final text of ISO/IEC FCD 10646-2, including additional compatibility ideographs accepted for inclusion in Plane 2 at this meeting (per resolution M38.2 above), with assistance from the contributing editors, and to forward these documents to SC 2 secretariat for further processing in May 2000, with unchanged target dates.	
c	to allow Japan to reverse its negative ballot on ISO/IEC CD 10646-2 from Japan, to send the FCD text to Japan for a preview, before sending it for SC2 processing.	
d	To assist the convener in preparing an appropriate response to Armenia per resolution (see action item AI-38-2- c on the convener),	
AI-38-5	**Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)**	
a	To add text to the principles and procedures document concerning formats of documents to be submitted to the convener, along the following: "Preferences are for Word .DOC format, or printable .PDF formats, with unprotected TEXT portions and possibly copyrighted Font portions. Whereas, files could be ZIP-ped for compressing them, It should be noted that .EXE files may not be accepted in many organizations as part of their Security Policy and self-extracting .EXE files should be avoided."	
b	Per Resolution M38.15 (Roadmap documents), to provide links to the updated documents N2213, N2214, N2215 and N2216 on the SC2 web site, once they are posted there, from Annex A of the principles and procedures document.	
c	To capture the WG2 resolve, in Resolution M38.12 (Additional Arabic presentation forms for Uighur and other languages), …. WG2 resolves not to add any more Arabic presentation forms to the standard and ….	
d	to take document N2176R - Implications of Normalization on Character Encoding; Unicode Consortium – Mark Davis; 2000-03-07, and incorporate it into Principles and Procedures document.	
AI-38-6	**Irish national body (Mr. Michael Everson)**	
a	To update the roadmap documents per Resolution M38.15 (Roadmap documents): WG2 adopts documents N2113, N2114, N2115 and N2116, as revised based on the discussion at meeting M38 as its standing documents. WG2 invites Mr. Everson to revise these documents reflecting the agreed upon changes, and forward these for distribution by WG2 and by SC2. The WG2 Principles and Procedures document N2002 is to be revised to reflect these revised roadmaps.	
b	To assist the convener in preparing an appropriate response to Armenia per resolution (see action item AI-38-2- c on the convener),	
AI-38-7	**National body of DPR of Korea**	
a	To take note of Resolution M38.1 (Feedback to DPR of Korea): With reference to the document N2193 (and other related ones), WG2 invites the Democratic People's Republic of Korea to provide sufficient input for review and further additions to the existing Korean character repertoire in ISO/IEC 10646. Specifically, WG2 invites DPR of Korea to submit proposals for their additional characters -- 8 Jamos, 79 symbols and any Hanja characters not already encoded in the CJK unified or compatibility ideographs sets in ISO/IEC 10646-1: 2000 or in ISO/IEC CD 10646-2, for further consideration by WG2, keeping in mind the following principles: - Existing characters in the standard cannot be reassigned other code positions. - Existing character names in the standard cannot be changed. Informative clarifying text regarding usage of names of scripts can be considered. - No duplicate characters are added if they can be unified with existing characters. - All new character proposals should be submitted following the guidelines in the WG2 Principles and Procedures document (SC2 /WG2 N2002) and the conventions for naming of characters in the standard.	

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
	DPR of Korea is further encouraged to participate in the IRG regarding their Hanja character requirements for possible inclusion as an extension to CJK.	
AI-38-8	**The US national body (Dr. Ken Whistler)**	
a	To take note of Resolution M38.9 (Math Symbols): WG2 provisionally accepts the 951 Mathematical Symbols for encoding in the BMP, as proposed in document N2191R. The US national body is invited to prepare a revised proposal reflecting feedback received from the experts group on the subject before the next meeting M39 in September 2000. WG2 intends to include this proposal in the working draft of the next Amendment to ISO/IEC 10646-1: 2000 at the next meeting.	
b	To act on Resolution M38.16 (Feedback to IEC - 3B on mapping of technical symbols): With reference to documents N2171 - IEC 3B/2xx/CDV, and N2174 on correspondence (mapping) between ISO/IEC 10646-1 and IEC 61286-2, WG2 instructs its convener to prepare and forward to the responsible IEC committee, a suitable response with assistance from Dr. Ken Whistler.	
c	To get feedback from the UTC, and to take note of Resolution M38.10 (Symbols from JIS X 0213): WG2 provisionally accepts the proposed symbols described under items 1 through 12 in document N2195 for future encoding in the BMP. Their names, shapes and code positions are to be synchronized with the processing of Mathematical Symbols proposal (see resolution M38.9 above), based on feedback to the experts' group on this topic.	
AI-38-9	**Japanese national body (Mr. Takayuki Sato)**	
a	Per Resolution M38.11 (CJK compatibility ideographs from JIS X 0213), to provide additional information on the 61 compatibility ideographs suitable for inclusion in the standard per discussion at meeting 38 (see also document N2142).	
b	To get feedback from the Philippines on Phillipines script (documents N1933 and N2194).	
c	To convey to Philippines the decision by WG2 not to encode NG as a separate character.	
d	To convey to Japan that the glyph change proposal in document N2166 for 301C WAVE DASH is not accepted. The glyph in the standard should be treated as a glyph variant in JIS 208 standard.	
e	To get feedback from Japanese experts on several questions raised on document N2195 - Rationale for non-Kanji; JSC, Japan; 2000-03-15, during meeting M38, and input to the ad hoc group for email discussion. see resolution M38.10 (Symbols from JIS X 0213) -- WG2 provisionally accepts the proposed symbols described under items 1 through 12 in document N2195 for future encoding in the BMP. Their names, shapes and code positions are to be synchronized with the processing of Mathematical Symbols proposal (see resolution M38.9 above), based on feedback to the experts' group on this topic.	
AI-38-10	**Chinese national body (Mr. Chen Zhuang)**	
a	To take note of Resolution M38.12 (Additional Arabic presentation forms for Uighur and other languages): WG2 has examined the request from China in document N2048 for additional Arabic presentation forms for supporting Uighur and other languages. WG2 resolves not to add any more Arabic presentation forms to the standard and suggests that China use the appropriate characters from the Arabic block and employ appropriate input methods, rendering and font technologies to meet the user requirements.	
AI-38-11	**German national body (Mr. Marc Küster)**	
a	With reference to the German ballot comment on ISO/IEC CD 10646-2, concerning Annex F (see document N2181), the German national body is invited to provide the list of Sources the Editor to be able to accommodate their comment. Other national bodies who have relevant information are encouraged to submit references to the editor.	
AI-38-12	**Myanmar national body**	
a	(Myanmar script experts in particular) to review document N2033 - Proposal for Extension of Myanmar Coded Set, John Okell and Hugh McG Ross, UK, 1999-06-03, with particular attention to the proposed DOUBLE COMBINING MARKS in the document. M38: This action was item M17-5 d, and is reassigned to Myanmar national body.	
AI-38-13	**Singapore national body (Mr. Huang Yu Xiong)**	
a	With reference to SIngapore's comment accompanying their negative ballot on ISO/IEC 10646-2 (in document N2181), Singapore is invited to submit the missing Hang-Zi characters as input to	

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
	IRG for consideration for inclusion in CJK Ideograph Extension C.	
AI-38-14	**Cambodian national body (Mr. Mony Sokha Sath)**	
a	to work with other Cambodian experts (including Messrs. Ken Whistler, Michael Everson, Maurice Bauhan) , to come to an agreement on the kind of annotation / explanatory text needed regarding Khmer characters referenced in document N2164) based on discussion at meeting M38.	
AI-38-15	**All national bodies and liaison organizations**	
a	To take note of Resolution M38.20 (Future meetings): WG 2 confirms the following future meeting schedule: - Meeting 39: 15 to 21 September 2000, Greece (along with SC2 plenary and SC2/WG3 meetings) (Note: change of dates from resolution M37.18). - Meeting 40: March 2001 - US West Coast - Meeting 41: September 2001 - Asia (Location to be confirmed) - Meeting 42: March 2002 - Ireland WG 2 accepts and confirms the following IRG future meeting schedule: - IRG 15: 19--23 June 2000 in Taiwan (Host: Taipei Computer Association) - IRG 16: 4 -- 8 December 2000 in Korea (Note: changed meeting dates from resolution M37.18)	
b	With reference to document N2180 - "Resolution 26 of the JTC 1 Seoul Plenary Meeting (JTC 1 5983) and Draft Agenda for the ISO/IEC JTC 1 SWG on Development of a Business Plan for Standards Availability (JTC 1 N 6041) ; JTC1; 2000-03-07", national body delegates are encouraged to work through their JTC1 national body representatives towards wide availability of SC2 standards on the web.	
c	With references to documents N2148 - Proposal: ISO/IEC TR 15285 extension – Character Glyph Model; Takayuki K. Sato Shuichi Tashiro; 2000-01-05; N2198 - Proposal to amend TR 15285 – Char Glyph Model; Japan; 2000-03-15; N2199 - Requirements for coded elements – proposed aNex to TR 15285 – Char Glyph Model; Japan; 2000-03-13, and, N2206 - Proposal to develop new Anex for TR 15285 – Char Glyph Model; Kobayashi, Kataoka, Kuwari; 2000-03-13, to review and feedback to Mr. Takayuki Sato, towards assisting users of ISO/IEC TR15285 to better understand how to bridge the worlds of glyphs and characters especially in the end-user interfacing. **(item carried forward to next meeting).**	
d	With reference to the German ballot comment on ISO/IEC CD 10646-2, concerning Annex F (see document N2181), the German national body is invited to provide the list of Sources the Editor to be able to accommodate their comment. Other national bodies who have relevant information are encouraged to submit references to the editor.	
e	To review and feedback on the following documents related to - Proposed Lithuanian repertoire additions - N2075R - Proposal to add Lithuanian Accented Letters to 10646-1; Lithuanian Standards Board; 1999-08-15; N2176R - Implications of Normalization on Character Encoding; Unicode Consortium – Mark Davis; 2000-03-07; N2189 - Identification of Decomposed Characters in 10646-1; Finland, Germany, Iceland – Erkki Kolehmainen, Marc Küster, Þorgeir Sigurdsson; 2000-03-14, and N2176R - Implications of Normalization on Character Encoding; Unicode Consortium – Mark Davis; 2000-03-07. **(item carried forward to next meeting).**	
f	To review and feedback on Proposal for encoding additional Math symbols in BMP (document N2191R - Proposal for encoding additional mathematical symbols in BMP; US national body; 2000-03-14) -- contact Dr. Ken Whistler, US, for the latest version of this document after glyph fixes etc.	
g	To review and feedback on document N2195 - Rationale for non-Kanji; JSC, Japan; 2000-03-15; work with ad hoc (Messrs. Hideki Hiura, Michael Everson, Ken Whistler, Japanese experts) via email, and feedback to Japan. See resolution M38.10 (Symbols from JIS X 0213) -- WG2 provisionally accepts the proposed symbols described under items 1 through 12 in document N2195 for future encoding in the BMP. Their names, shapes and code positions are to be synchronized with the processing of Mathematical Symbols proposal (see resolution M38.9 above), based on feedback to the experts' group on this topic.	
h	To review and feedback on the following **items carried forward to next meeting**. a) Proposal to encode Meroitic in plane 1 (documents - N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2; Everson; 1997-09-18; N2098 - Report on the proposal for a Meroitic sign; DIN, Germany; 1999-09-13; N2134 - Response to	

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 – this document you are reading.)	Status
	comments on encoding Meroitic (N2098); Everson; 1999-10-04) b) Old Mongol Scripts (Document N2163 - Soyombo and Pagba (old Mongol scripts); Sato; 2000-01-06) c) Document N2187 - Overview of characters approved by Unicode; Unicode Consortium – Asmus Freytag; 2000-03-13, with the intent of accepting towards synchronization between 10646 and Unicode standards. d) Philippines script (documents N1933 - Revised proposal for encoding the Philippine scripts; Everson; 1998-11-10; N2194 - Philippino characters; Sato; 2000-03-22). e) Early Aramaic (and other scripts) (Document N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson; 1999-07-20) f) Apostrophe and quotation mark (Document N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters; Everson; 1997-07-24) g) Encoding of New Tai Lue (Document N2044 - On encoding New Tai Lue as proposed by China; Everson; 1997-08-13) h) Latin combining characters to support Middle High German (Document N2160 - Proposal to add Latin combining characters to support Middle High German; DIN – Marc Kuester; 2000-02-16)	