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 40, Mountain View, CA, USA 2001-04-02/05
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 2001-09-30.
ACTION ID:	ACT
DUE DATE:	2001-09-30
DISTRIBUTION:	SC 2/WG 2 members and Liaison organizations
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ISO
International Organization for Standardization
Organisation Internationale de Normalisation

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

ISO/IEC JTC 1/SC 2/WG 2 *N2353DRAFT*
Date: 2001-09-09

Title:	Unconfirmed Minutes of WG 2 meeting 40, Microsoft Campus, Mountain View, CA, USA; 2001-04-02/06
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Meeting Secretary, Mike Ksar (mikeksar@microsoft.com), Convener
Action:	WG 2 members and Liaison organizations
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 members and Liaison organizations

1 Opening and roll call

Input documents:
N2325 2nd Call & updated agenda – WG2 meeting 40; Ksar; 2001-02-25
N2251 Updated WG2 distribution list; Ksar; 2000-09-05
N2330R Updated Agenda meeting 40 - with doc links; Ksar; 2001-04-02

The convener Mr. Mike Ksar opened the meeting at 10:00h. He welcomed the delegates to Mountain View, CA. The Unicode Consortium and Microsoft Corporation hosted the meeting. He introduced Dr. Mark Davis, the President of the Unicode Consortium.

Dr. Mark Davis welcomed the delegates to Mountain View, CA, and briefly addressed the meeting. "I hope the recent electrical power interruptions in California does not hit us during the meeting. An excursion to Monterey peninsula has been arranged for Friday, and I invite those of you to join if they had not already done so. It is almost 10 years in the history of Unicode and WG2. About 10 years ago it was looking like the Unicode and WG2 were on diverging paths. Due to the efforts of Messrs. Ed Hart and Mike Ksar – an ad hoc meeting was held in San Francisco. That ad hoc was successful, and we came to an agreement to merge the two standards into one. There was a follow-on meeting in Geneva to hash out the details. We had a lot of furious sessions there. We were successful at that time and during the following 10 years to keep the two standards in synch. Probably all of you are using machines and browsers, which are in some way or another Unicode-capable. There is a flowering throughout the world of the ability to use one's own natural language characters. The cooperation between the Unicode and WG2 has been very successful due to the continued efforts of many of you in this room as well as throughout the world. I would like specially thank Mr. Mike Ksar in his efforts to keep the Unicode and WG2 work in synchronism. I wish you a good meeting."

Mr. Mike Ksar: Ms. Magda Danish, from the Unicode office, is our logistics coordinator and will be supporting us for copying and other meeting logistics matters. The hosts have provided with Ethernet high-speed network facility, and analog modem lines, for those delegates who wish to work off of the network. A printer is available in the meeting room. We do not have a room reserved for ad hoc meetings. If we need a room, we can find room in the cafeteria or outside. The lunch breaks will be around 12:30h. We will have two breaks for coffee – Morning and Afternoon. We should target to complete the work by Wednesday PM and get the resolutions approved on Thursday AM. You can join the excursion planned for Friday by our host. Please inform Ms. Magda Danish if you intend to participate in the excursion.

The agenda for this meeting is in document N2330R updated as of April 1st 2001. All the documents that are in hard copy are also on the web – many of you are connected to the network. A zipped version of

the documents was also made available on the WG 2 site by Mr. Keld Simonsen, with hyperlinks from the agenda document to the individual documents. There are also a CD-ROM and a Flash Card available from Mr. Arnold Winkler. The CD-ROM version also has the documents hyper-linked to the agenda document. There are other documents to be added to the agenda and as we review the agenda I will point them out to you. Just as a reminder, if you want to distribute a document, please give it to me, I will assign a number to the document before copying and distributing to the meeting.

The first major focus of this meeting will be disposition of comments on ballot comments for PDAM-1 ballot. The second major focus will be to progress FDIS 10646-2. The ballot results for the FDIS were received this morning from ITTF / SC2 secretariat – it has been approved with some comments on it.

A document containing the names and addresses is circulated for checking and updating by the attendees.

Roll Call

The following twenty seven (**27**) delegates representing nine (**9**) national bodies, and one (**1**) liaison organization, and four (**4**) guests attended the meeting.

Name	***Representing***	***Affiliation***
Alain La Bonté	Canada	Secrétariat du Conseil du trésor du Québec, Gouvernement du Québec
V. S. (Uma) Umamaheswaran	Canada, Recording Secretary	IBM Canada
Jin Zhen-Rong	China	Kyung Hee University
Zhang Zhoucai	China, IRG Rapporteur	CCID
Christian Cooke	Ireland	Lionet Technologies
Michael Everson	Ireland	Everson Gunn Teoranta
Shun ISHIZAKI	Japan	Keio University
Takayuki K. SATO	Japan	Centre of the International Cooperation for Computerization
Tatsuo L. KOBAYASHI	Japan	Justsystem Corporation
Jo Nam Ho	DPR of Korea	Academy of Sciences of DPR Korea
Kim Yong Song	DPR of Korea	Committee for Standardization
Kim Yu Jong	DPR of Korea	Pyongyang Informatics Centre
Pak Dong Gi	DPR of Korea	Committee for Standardization
Gwang-Hwa JUNG	Republic of Korea	Agency for Technology and Standards, MOCIE
Kyongsok Kim	Republic of Korea	Busan National University
Tae-Su Han	Republic of Korea	Agency for Technology and Standards
Asmus Freytag	Liaison - The Unicode Consortium	Unicode, Inc.
Vladas Tumasonis	Lithuania	Vilnius University
Deborah Anderson	Guest	University of California, Berkeley, CA, USA
Joseph D. Becker	Guest	Xerox Corporation
Richard S. Cook	Guest	University of California, Berkeley, CA, USA
Matthew Y. Ahn	Guest (Chinese Translator)	K.C. Services, Fullerton, CA, USA
Kent Karlsson	Sweden	Industri-Matematik International
Arnold F. Winkler	USA	Unisys Corporation
Hideki Hiura	USA	Sun Microsystems Inc.
Joan Aliprand	USA	Research Libraries Group
Ken Whistler	USA	Sybase, Inc.
Lisa Moore	USA	IBM Corporation
Michael Y. Ksar	USA, Convener	Unicode, Inc.
Michel Suignard	USA; Editor Parts 1 & 2	Microsoft Corporation
Edwin F. Hart	USA; Editor TR 15285	SHARE; Applied Physics Laboratory, Johns Hopkins University

Part of the Chinese delegation could not attend the meeting due to delays in dealing with Visas. Regrets were received from our web site supporter and contributing editor Mr. Keld Simonsen. It was not known if German delegates will be attending.

Drafting committee: The draft resolutions were prepared by the meeting secretary Dr. V.S. Umamaheswaran with assistance from Messrs. Asmus Freytag, Michael Everson, Michel Suignard and Mike Ksar, the convener.

2 Approval of the agenda

Input document:
N2330R Updated Agenda meeting 40 - with doc links; Ksar; 2001-03-27

The preliminary agenda in document N2330 was reviewed and amended as follows:

a. Add document N2341 to item 7.1
b. Move 7.1.3 – document N2294 as new item 11.2 under IRG matters.
c. Add new item 7.1.5 – document N2335 – Draft disposition of comments to PDAM-1 ballot response
d. Document N2342 replaces document N2310 under item 7.5
e. Document N2336 replaces document N2318 under item 7.8
f. Documents N2343, N2345, N2356 were generated and during this meeting and discussed under item 7.8
g. Add new item 7.13 – Limbu script – documents N2339, N2340
h. Add new item 7.14 – Georgian characters – document N2346
i. Add new item 7.15 – Disunifying Brackets – document N2345 from Math ad hoc group.
j. Add new item 7.16 – Combining Grapheme Joiner (from previous meeting) – documents N2236 and N2317?
k. Add new item 7.17 – Two Arabic characters – document N2357
l. Add documents N2334 and N2337 to item 8.1
m. Add documents 2198 and 2199 to item 9.1
n. Add new item 9.2 – Principles and Procedures document update – document N2352
o. Add new item 8.6 – Ugaritic – document N2338
p. Add new item 8.7 – Aegean script

All other changes made during the progress of the meeting are captured and are reflected in these minutes. Some of the agenda items have been reorganized in this document. The following table of contents reflects the agenda items.

3 Approval of minutes of meeting 39

Input document:
N2253 Draft minutes meet 39 – Athens; Ksar/Uma; 2001-01-21

Dr. Umamaheswaran introduced document N2253 containing the minutes of meeting 39, which was sent out 21 Jan 2001 with a request for comments by 28-02-01. Some comments were received during the meeting and the changes to minutes are noted below:

Section reference in document N2253	Correction
(From Mr. Michel Suignard)	
section 7.16 first paragraph section 8.1 – Japan comment J6 - item a	Replace "Michael Suignard" with "Michel Suignard"
(From Dr. Kent Karlsson)	
Section 7.2.1, discussion items d, f, and g under discussion:	Replace 2445, 2446, 2449 with 2245, 2246 and 2249 respectively.
Section 7.2.4, discussion item a, second sentence	Replace "When we publish Part 1, it is possible that we will change to using the format of Part 1." With "When we publish the next edition of Part 1, it is possible that we will change to using the format of Part 2."
Section 7.8, discussion item g	Replace "Why is this character not made a ....." with "Why is this character made a ....."
Section 7.8, discussion item h	Replace "The reason - if it was made combining, the set of properties ... " with "The reason - by making it combining, the set of properties ... "
Section 7.8, discussion item i	Replace "Why ZWWJ is not .. " with "Why is ZWWJ not ... "
Section 7.12, Disposition, second sentence	Replace "BDS 1530: 1997" with "BDS 1520: 1997".
Section 7.13, discussion item a, 3rd sentence	Replace "UTR" "UTR-14".
(From the recording secretary)	
Section 16.1, Title	Replace “to 32” with “to 35”.
Section 16.3, Title of Second Column of the table	Replace “ … section 3 above” with “… section 3 in document N2203”.
Section 16.4, Title of Second Column of the table	Add “- with the corrections noted in section 3 of document N2253” to the end of the heading text.
Section 16.5, Title of Second Column of the table	Replace the meeting number "38" with "39"; Replace document numbers "2203" and "2204" with "2253" and "2254" respectively. Add “- with the corrections noted in section 3 above” to the end of the heading text.
Action item AI-39-4-b noted under 10646-2 items,	Should be moved to AI-39-3-d under 10646-1 items. It may also apply to 10646-2.

4 Review of action items from previous meeting

Input document:
N2253 Draft minutes meet 39 – Athens; Ksar/Uma; 2001-01-21

Dr. Umamaheswaran reviewed the outstanding action items in section 16 of document N2253. The updated status for each item is shown in the tables in the following sections. All action items that are not yet completed are carried forward to the next meeting and are shown in section 16 on page 46.

4.1 Action items from previous WG 2 meetings (numbers 25 to 35)

All action items recorded in the minutes of the following meetings have been either completed or have been dropped. Only outstanding and new action items are listed in the tables that follow.

a. meeting 25, 1994-04-18/22, Antalya, Turkey (document N1033)
b. meeting 26, 1994-10-10/14,San Francisco, CA, USA (document N1117)
c. meeting 27, 1995-04-03/07, Geneva, Switzerland (document N1203)
d. meeting 28, 1995-06-22/26, Helsinki, Finland (document N 1253)
e. meeting 29, 1995-11-06/10, Tokyo, Japan (document N1303)
f. meeting 30, 1996-04-22/26, Copenhagen, Denmark (document N1353)
g. meeting 31, 1996-08-12/16, Québec City, Canada (document N1453)
h. meeting 32, 1997-01-20/24, Singapore (document N1503)
i. meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document N1603)
j. meeting 34, 1998-03-16/20, Redmond, WA, USA (document N1703), and,
k. meeting 35, 1998-09-21/25, London, UK (document N1903)

4.2 Outstanding action items from meeting 36, 1999-03-09/15, 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-36-6	**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, M38 and M39 - in progress.	Completed; see document N2352.

4.3 Outstanding action items from meeting 37, 1999-09-17/21, 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 of document N2203).	Status
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 and M39 - in progress,	Completed; see document N2352.
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 and M39 - in progress.	In progress; Has been communicated to Nepal. They accept in principle but there will be a contribution.
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 and M39 - in progress.	In progress; Marc Küster is calling for a meeting on May 8 on Historic scripts.

4.4 Outstanding action items from meeting 38, 2000-07-18/21, Beijing, China

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 - with the corrections noted in section 3 of document N2253).	Status
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." M39 - in progress.	Completed; see document N2352.
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. M39 - in progress	Completed; see document N2352.
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 …. M39 - in progress	Completed; see document N2352.

Item	Assigned to / action (Reference Meeting 38 Resolutions in document N2204 and Unconfirmed Meeting 38 minutes in document N2203 - with the corrections noted in section 3 of document N2253).	Status
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. M39 - in progress	Completed; see document N2352.
AI-38-9	**Japanese national body (Mr. Takayuki Sato)**	
b	To get feedback from the Philippines on Philippines script (documents N1933 and N2194). M39 - in progress	Completed; Mr. Takayuki Sato has contacted Phillippines and they have accepted the Tagalog proposal.
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: action item M17-5 d, reassigned to Myanmar national body. M39 - in progress.	In progress; Mr. Takayuki Sato is in contact with Myanamar.
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. M39 - in progress	Dropped.
AI-38-15	**All national bodies and liaison organizations**	
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 annex 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).** M39 - in progress	Noted. No feedback. An ad hoc will meet during meeting M40.

4.5 New action items from meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece

Item	Assigned to / action (Reference Meeting 39 Resolutions in document N2254 and Unconfirmed Meeting 39 minutes in document N2253 – this document you are reading - - with the corrections noted in section 3 above).	Status
AI-39-1	**Meeting Secretary - Dr. V.S. UMAmaheswaran**	
a	To finalize the document N2254 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N2254.
b	To finalize the document N2253 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	Completed; see document N2253.
AI-39-2	**Convener - Mr. Mike Ksar**	
a	To act on Resolution M39.1 (Feedback to Armenia): With reference to the fax message received from SARM, the Armenian national body, via the Armenian embassy in Athens, WG2 instructs its convener to respond as follows: a. reaffirming the previous resolution M38.17 b. informing SARM that ISO/IEC 10646-1 is a published standard, not a DRAFT, and cannot be suspended, and, c. inviting SARM to participate in SC2 and its working groups towards better harmonization of Armenian standards with SC2-developed standards and to actively participate in the technical program of work of SC2/WG2.	In progress.

Item	Assigned to / action (Reference Meeting 39 Resolutions in document N2254 and Unconfirmed Meeting 39 minutes in document N2253 – this document you are reading - - with the corrections noted in section 3 above).	Status
b	Resolution M39.11 (Request from Bangladesh): In response to the request from Bangladesh Standards and Testing Institution in document N2261 for adding KHANDATA character to 10646, WG2 instructs its convener to communicate to the BSTI: a. that the requested character can be encoded in 10646 using the following combining sequence: Bengali TA (U+09A4) + Bengali Virama (U+09CD) + ZWNJ (U+200C) + Following Character(s), to be able to separate the KHANDATA from forming a conjunct with the Following Character(s). Therefore, their proposal is not accepted. b. our understanding that BDS 1520: 2000 completely replaces the BDS 1520: 1997.	In progress.
AI-39-3	**Editor of ISO/IEC 10646-1 Mr. Michel Suignard with assistance from contributing editors**	
	To prepare the appropriate AM, DAM or PDAM texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a	Resolution M39.5 (Editorial Corrigenda): WG2 accepts the following proposed changes: a. revised character shapes for code positions 066B, 066C, 125C, 2216, 224C, 25AA, 25AB (from document N2238) in the BMP b. the updated Table 47 for Khmer in document N2274, with correction to the glyph for RIEL SIGN at 17DB per document N2238, and, c. the proposed changes to the glyphs of Letter-like Symbols in the BMP as suggested in document N2272 d. FEFF (ZWNBSP) - add the missing glyph. Further WG2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in 10646-1: 2000. Further, WG2 instructs its editor to update document N2232 - cumulative list of editorial corrigenda, and forward the corrigenda to ITTF with a request to publish the set as a Minor Revision to the standard.	In progress; some progress has been made in preparing the documents for PDAM-1.
b	Resolution M39.23 (Format of Character additions in Amendments to 10646): WG2 resolves that the format for amendments that involve character additions will be in the form of complete replacements of tables and character name lists where they exist, with an explanatory text listing the code positions or ranges of code positions to which new characters are assigned. If it is a new block it will be presented as a complete new table and names list.	Noted; see documents N2308 and N2352.
c	Resolution M39.25 (Initiating PDAM-1 to 10646-1:2000): WG2 accepts documents N2228 (working draft for PDAM-1 from the editor) and document N2285 (summary of all the technical changes to the BMP accepted to date), and documents N2281 and N2273 (containing the updated code charts and name lists) as the base documents for preparing the PDAM text. Further, WG2 instructs its editor, with assistance from the contributing editor and the US national body, to prepare the text for PDAM-1 to 10646-1: 2000, with the title MATHEMATICAL SYMBOLS AND OTHER CHARACTERS, and submit it to the SC2 secretariat for further processing. The target completion dates are: WD 2000-10, PDAM 2001-04, FPDAM 2001-10, FDAM 2002-02, AM 2002-06. (See also document N2254 for related resolutions from Meeting M39).	Completed; see document N2308.
d	Resolution M39.22 (Permanent Reservation): WG2 accepts to permanently reserve 32 character positions FDD0 to FDEF in the BMP (as proposed in document 2277) for internal processing purposes, with the following annotation for each code position: (This position is permanently reserved) For consistency, WG2 also agrees to change the annotation for all code positions ending with FFFE or FFFF in all the planes.	Should have been under M39-4 for 10646-1; completed; see document N2308.
AI-39-4	**Editor of ISO/IEC 10646-2: Mr. Michel Suignard with assistance from contributing editors**	
	to take note of the following and incorporate the needed text in the next draft of ISO/IEC 10646-2:	

Item	Assigned to / action (Reference Meeting 39 Resolutions in document N2254 and Unconfirmed Meeting 39 minutes in document N2253 – this document you are reading - - with the corrections noted in section 3 above).	Status
a	Resolution M39.6 (FCD 10646-2): WG2 accepts document N2280, modified based on the review at this meeting, as the disposition of comments to the ballot responses in document N2276. The only further changes to be accepted in FDIS would be refinements to the character shapes and additions to DPR of Korea sources for CJK ideographs; the target dates for these changes is 2000-12-12. WG2 instructs its editor to prepare the final disposition of comments, and with assistance from the contributing editors, to prepare the text for FDIS 10646-2, and submit these documents to the SC2 secretariat for further processing, with unchanged target completion dates: FDIS 2001-05 and IS 2001-12.	Completed; see document N2309.
AI-39-5	**Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)**	
a	Update the guidelines for submitting collections to add USI in accordance with RESOLUTION M39.7 (UCS Sequence Identifier): WG2 accepts the notation for sequence identifier proposed in document N2230 for inclusion in the next amendment of 10646-1: 2000, with the following changes: a. The identifier is called "UCS Sequence Identifier (USI)" instead of Unique Sequence Identifier. b. The delimiters are LESS THAN and GREATER THAN signs instead of the angle brackets. c. There must be at least two UIDs in a sequence.	Completed; see document N2352.
b	To update the BMP roadmap documents to reflect results of this meeting M39 (see document N2313).	Completed; see document N2316.
AI-39-6	**Irish national body (Mr. Michael Everson)**	
a	With reference to document N2240 on 8 recycling characters, to add references to relevant standards or other source documents to the proposal.	Completed; see document N2308.
b	With reference to document N2241 on Egyptological characters, to refine the proposal working in an ad hoc group with other experts in Egyptology.	In progress.
c	Is invited to prepare a contribution on guidelines on the use of DIGITS versus NAMES of DIGITS in character names in 10646.	In progress.
d	To assist Mr. Takayuki Sato in providing better glyphs for the DENTIST Symbols (from N2093).	Completed; see document N2308.
AI-39-7	**National body of DPR of Korea**	
a	To take note of and act on Resolution M39.2 (Proposals from DPR of Korea): a. With reference to documents N2231, N2245, and N2246, WG2 reaffirms its resolution M38.1 on the WG2 principles. b. WG2 officially creates an ad hoc group on the Korean script and invites DPR of Korea; Republic of Korea and other interested national bodies and experts to participate in it. c. With reference to documents N2243 and N2244, WG2 invites DPR of Korea to separate and refine their proposals according to the ad hoc recommendations in document N2282. d. With reference to document N2247, WG2 regrets it cannot add an additional column to the CJK tables in 10646-1: 2000, due to production and formatting complexities. e. WG2 invites DPR of Korea to participate in the IRG, and contribute towards developing a set of Data Tables containing the CJK Character Sources for the CJK ideographs in 10646-1 (similar to the corresponding data tables in FCD 10646-2). The target date for the DPR of Korea data tables is 2000-11-15.	Noted and completed; see document N2331.
AI-39-8	**The US national body (Messrs. Hideki Hiura, Arnold Winkler, Ken Whistler)**	
a	Mr. Hideki Hiura - to act on Resolution M39.3 (SOFT HYPHEN and others): With reference to document N2268, WG2 endorses the principle that SOFT HYPHEN - SHY and other similar characters in the standard must not be lost during interchange even though their properties and behaviour are not explicitly specified in SC2 standards, including 10646. Further WG2 requests Mr. Hideki Hiura to communicate this principle to the Linux community.	In progress.

Item	Assigned to / action (Reference Meeting 39 Resolutions in document N2254 and Unconfirmed Meeting 39 minutes in document N2253 – this document you are reading - - with the corrections noted in section 3 above).	Status
b	Mr. Arnold Winkler - to act on Resolution M39.4 (Response to APL WG): WG2 accepts document N2283, and invites Mr. Arnold Winkler to send it to SC22/WG3 - APL working group, as the response to their proposal in document N2260 regarding name changes to APL characters.	Completed.
c	To revise document N2263 per Resolution M39.24 (Draft tables and name lists for PDAM): WG2 accepts document N2263 as the working draft for PDAM-1 text, with the following changes to the Mathematical symbols, as recommended by the ad hoc on the PDAM text: a. Remove the word GREEK from all new letter-like symbols in the code positions 213D to 2140 b. Change SANS SERIF to SANS-SERIF wherever it occurs in the new character names c. The Greek Straight Epsilon symbols to be renamed Greek Lunate Epsilon Symbols d. All new Open Face symbols to be renamed Double-Struck symbols e. 03F4 will have the name GREEK CAPITAL THETA SYMBOL f. Q-shaped Koppas will be renamed Archaic Koppas (with a suitable annotation on the use of these characters). WG2 further invites the US national body to revise document N2263, incorporating the above changes and additions and reflecting all the new characters, name and shape changes accepted during this meeting (see resolutions M39.9 to M39.22 above), and reflecting the resolution M39.23 on the format to be used.	Completed; see document N2308.
AI-39-9	**IRG Rapporteur (Mr. Zhang Zhoucai)**	
a	Resolution M39.26 (DPRK - Ideographs in the BMP): The IRG is instructed to investigate creation of mapping tables of CJK ideographs and compatibility ideographs included in the BMP to their sources, including consideration for adding DPRK sources, similar to the data tables provided for CJK sources in 10646-2.	In progress.
b	To examine the proposal in document N2271 -- Proposal to amend two source code changes in BMP CJK Unified Ideographs block; TCA; 2000-09-19 – and advise WG2 on a possible corrigendum to 10646-1 for the T-Column entries in the CJK tables.	In progress.
AI-39-10	**The Unicode Consortium (Dr. Asmus Freytag)**	
a	With reference to document N2236 - Proposal for addition of COMBINING GRAPHEME JOINER; UTC – Mark Davis; 2000-08-10; the proposers are invited to update the proposal addressing the concerns raised during the discussions at the meeting.	In progress.
b	To assist the editor in regard to Resolution M39.5 (Editorial Corrigenda): WG2 accepts the following proposed changes: a. revised character shapes for code positions 066B, 066C, 125C, 2216, 224C, 25AA, 25AB (from document N2238) in the BMP b. the updated Table 47 for Khmer in document N2274, with correction to the glyph for RIEL SIGN at 17DB per document N2238, and, c. the proposed changes to the glyphs of Letter-like Symbols in the BMP as suggested in document N2272 d. FEFF (ZWNBSP) - add the missing glyph. Further WG2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in 10646-1: 2000. Further, WG2 instructs its editor to update document N2232 - cumulative list of editorial corrigenda, and forward the corrigenda to ITTF with a request to publish the set as a Minor Revision to the standard.	In progress.
AI-39-11	**Japanese national body (Mr. Takayuki Sato)**	
a	With help from Mr. Michael Everson, to provide better glyphs for the DENTIST Symbols (from N2093).	Completed; see document N2308.
AI-39-12	**Chinese national body (Mr. Chen Zhuang)**	

Item	Assigned to / action (Reference Meeting 39 Resolutions in document N2254 and Unconfirmed Meeting 39 minutes in document N2253 – this document you are reading - - with the corrections noted in section 3 above).	Status
a	To act on Resolution M39.17 (Dai scripts): With reference to documents N2239R and N2242R, Dehong Dai and Xishuang Banna Dai scripts, WG2 invites the Chinese national body to work with other national bodies and interested experts, and prepare revised proposals and proposal summary form, with assistance from the contributing editor Mr. Michael Everson, for consideration by WG2 at its next meeting in April 2001.	In progress.
AI-39-13	**All national bodies and liaison organizations**	
a	To review and feedback on the following items carried forward to next meeting. a) Document N2241 on adding 6 Egyptological characters b) Document N1638 on adding Meroitic in Plane 1 of ISO/IEC 10646-2 c) Document N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts. d) To take note of and contribute regarding Resolution M39.17 (Dai scripts), regarding documents N2239R and N2242R, on Dehong Dai and Xishuang Banna Dai scripts.	Noted. Some progress on Limbu script – see documents N2339, N2340.
b	To take note of Resolution M39.30 (Future Meetings): WG2 meetings: Meeting 40 – week of 2 April 2001 – Mountain View, CA, USA; Hosts: Microsoft Corp. and Unicode Consortium. Meeting 41 – week of ~~September 24~~ **October 15**, 2001 (tentative), Singapore, Hosts: Singapore NB and Sybase, co-located with SC2 plenary Meeting 42 – March/April 2002 - Europe. Possible hosts: Ireland, Finland, Greece, Norway, or Netherlands. IRG meetings: IRG 16 Seoul, Korea, 2000-12-04/08 IRG 17 HKSAR, 2001-06	Noted.
c	To take note of and contribute regarding Resolution M39.2 (Proposals from DPR of Korea) - item b: WG2 officially creates an ad hoc group on the Korean script and invites DPR of Korea, Republic of Korea, and other interested national bodies and experts to participate in it.	Noted; see document N2331.

5 JTC1 and ITTF matters:

5.1 CLAUI proposed meeting SC35, SC22/WG20 and SC2

A joint meeting was proposed between SC22 WG20, SC35 and SC2 to be held in conjunction with SC22/WG20 meeting -- the 1st to 3rd May 2001 is WG20, 4th and 5th is CLAUI. If someone is interested in representing SC2 at this meeting please inform the convener to communicate to the SC2 secretariat.

For your information, the JTC1 plenary is in Hawaii in November 2001.

6 SC2 matters

6.1 SC2 Program of Work

There are two work items assigned to WG2 in the SC2's program of work (see www.dkuug.dk/JTC1/SC2/open/pow.htm) – one on 10646-2 and another one on AM-1 to 10646-1. Updates will be made by the SC2 secretariat based on the resolutions from this meeting.

6.2 Submittals to ITTF

See www.iso.ch/liste/JTC1SC2.html for a list of SC2 generated / maintained standards. FDIS 10646-2 was submitted. We will discuss items related to publishing the IS at this meeting. Corrigendum / minor revision to Part 1 has not been submitted. FDAM-1 to 10646-1 will be ready after October 2001 meeting.

6.3 SC2/WG3 matters

6.3.1 Thai input on character names in FDIS 8859-11

Input document:
N2332 Thai character names in FDIS 8859-11; Thai Industrial Standards Institute ; 2001-03-11

We have not received any official request to WG2 from Thailand. This document contains proposed annotations to character names in 8859-11, and is FYI only at this meeting.

6.4 Ballot results

6.4.1 PDAM1 10646-1:2000

Input document:
N2328 PDAM1 ballot results and cumulative comments; SC2 Secretariat; 2001-03-08

PDAM-1 ballot received the following results -- of the 35 P members, 17 members did not respond, 16 approved (4 with comments), and 2 – Ireland and Japan – disapproved. 1 O-member (Czech Republic) approved. *See disposition of comments discussion in section 7.1 on page 14.*

6.4.2 FDIS 10646-2

Input document:
N2337 FDIS Ballot Results, Responses as of 2001-04-02 (Ballot closes 2001-04-08).

Document N2337 contains responses received to date on the FDIS ballot, which closes on 2001-04-08. 14 P members -- Canada (editorial comments), China, Denmark, Finland, Germany, Ireland, Italy, Korea (Republic of), New Zealand, Norway, Slovenia, Sweden, Switzerland, USA – Approved; 1 P-member -- Japan – Disapproved; 4 P-members -- France, Portugal, South Africa, UK – Abstained; 2 O-members -- Czech Republic, Russian Federation -- Approved.

(There were no responses from: 8 P members – Australia, Belgium, Brazil, Egypt, Kenya, Korea (DPR of), Netherlands, Romania; and, 35 O-members – Argentina, Austria, Bulgaria, Colombia, Cuba, Ecuador, Estonia, Ethiopia, Greece, HKSAR, Hungary, Iceland, India, Indonesia, Iran, Israel, Lithuania, Malaysia, Mexico, Mongolia, Morocco, Peru, Philippines, Poland, Saudi Arabia, Singapore, Slovakia, Spain, Thailand, Tunisia, Turkey, Ukraine, Vietnam, Yugoslavia)

See section 8.1 on page 37 for discussions related to progressing the FDIS to IS.

7 10646-1: 2000

7.1 PDAM1 10646-1:2000 – disposition of ballot comments

Input documents:
N2308 PDAM Text for Amendment 1 – 10646-1:2000; Suignard, Freytag, Everson; 2000-11-30
N2320 Comments (1 & 2) on PDAM1 of ISO/IEC 10646-1; Paterson; 2001-01-29
N2323 US Comments – PDAM1 10646-1:2000 ballot; US NCITS/L2; 2001-02-09
N2328 PDAM1 ballot results and cumulative comments; SC2 Secretariat; 2001-03-08
N2335 Draft disposition of comments; Michel Suignard, Editor 10646-1; 2001-03-30 (only for review at the meeting)
N2341 Revised Charts

Other input documents included under the discussion under this agenda item:
N2271 Propose to amend two source code changes in BMP CJK Unified Ideographs block; TCA; 2000-09-19
N2281 Updated N2263 – Working draft of Tables and Character Names for proposed Amendment 1 of 10646-1:2000; US; 2000-09-21
N2294 Feedback from Japan on N2271 – Proposal by TCA to amend two source code changes in BMP CJK Unified Ideographs block; Japan, T. K. Sato; 2000-10-27
N2295 Feedback from Japan on N2281 – working draft on pDAM 1; Japan, T. K. Sato; 2000-10-26
N2320 Comments (1 & 2) on PDAM1 of ISO/IEC 10646-1; Paterson; 2001-01-29
N2329 Multilingual issues concerning recycling symbols and symbols in general; La Bonté - expert contribution; 2001-03-14

Output document:
N2335 Disposition of comments; Michel Suignard, Editor 10646-1; 2001-04-05

Mr. Michel Suignard: First, there are some general observations to make. Several comments have been received on Part 1 itself – not directly related to PDAM-1. They could have been treated as a separate corrigendum and these have to be discussed in WG2. The format used in draft disposition of comments

is -- the full comment text taken from documents N2328 for ease of reference, followed by the proposed disposition.

1) Canada --- Approval with comments.

Comment 1: Glyph issues in Part 1.
These are not directly related to PDAM-1 itself, but with Part 1 itself when it was published.
Discussion:

a. Mr. Takayuki Sato: Lots of changes have happened in Japanese glyphs also in Part 1 2nd edition publication. We need to have a notice of which glyphs have changed.
b. Mr. Mike Ksar: Part 1 glyph charts were made open for several meetings in a row – WG2 experts should have checked the glyphs carefully before the publication draft. We had gone through a similar exercise for Part 1 going through about 60000 characters.
c. Dr. Asmus Freytag: It is important to distinguish three things – shape of the glyph as reviewed as part of the publication. We were up front by stating that we were using new fonts. There was more than adequate chance for reviews. The second thing is -- unfortunately there were a number of bugs introduced after the final review. These are impossible to detect and alert every one. There is a third issue – if we are changing the glyphs due to introduction of other glyphs. Many of the comments are brought out as part of PDAM1 are related to Part 1. I have no particular problems with the Canadian comments.
d. Dr. Umamaheswaran: Suggest that these glyph corrections be relegated to the editorial corrigendum – to be processed as minor revision -- that is yet to be processed. However, the minor revision has to be processed prior to the FPDAM-1.
e. Dr. Asmus Freytag: Since we have to reproduce the charts anyway we could include the corrections in the next PDAM draft.
f. Mr. Michael Everson: When I reviewed the glyphs for the second edition – I did complain about the Keyboard symbols. I revised these in close cooperation with the editor of the Keyboard standard. I complained about the changes. The original fonts from Amd 22 are still available and can be used.
g. Mr. Mike Ksar: If Dr. Asmus Freytag prefers to incorporate changes in the charts then they will be part of charts to be reproduced in PDAM-1 -- that is fine. For those corrections that are not in charts we may need a separate corrigendum.

Disposition: Accepted in principle. Incorporate the identified glyph corrections as editorial corrigendum. Mr. Michael Everson will supply the fonts to Dr. Asmus Freytag. FPDAM-1 will take the revised charts incorporating the editorial corrigendum,
Comment 2: Request to remove bracket pieces etc. if sufficient justification is not found by WG2.
Discussion:
Dr. Ken Whistler: Justification for inclusion of these characters is in document WG2 N 2319R. Detailed justification for inclusion of most of these characters were included in the WG2 Beijing document. The justification came from mapping to Math entity sets. They are also part of Adobe Symbol Fonts. WG2 was well aware at that time that these are not in accordance with Character Glyph Model.
Disposition: Accepted in principle. The characters will not be removed.
Comment 3: Regarding Variant Selector character, some explanatory text should be provided. A specific list of variants was also supposed to be included.
Discussion:

a. Dr. Ken Whistler: Explanatory text is needed - Yes but no proposed text is provided to the editor. As to the specific variants, yes; again; but no explicit list is provided to the editor. In the absence of specific working documents the editor cannot do anything at this point. The original material from which the information could be derived is there. However, there is no specific text provided nor is there a methodology on how to incorporate such information. Explanatory text could be derived from the source document. However, the specific list of variants so encoded has to be provided to the editor.
b. Dr. Asmus Freytag: The Canadian comment points to WG2 that the original contributors did not complete the work of providing all the information necessary to be included in the standard. It cannot be expected of commenting national bodies to provide details on scripts that they are not

originators of. For example, the Mongolian work has to be completed and included in the standard. The list of Math symbols using the variant selector we may be able to get in to this amendment.

c. Mr. Mike Ksar: We cannot depend on additional action items that may impact processing of this PDAM. A list of specific variants to be included has to be prepared.
d. Mr. Michael Everson: A new separate annex may have to be created. We need to have a canonical list that goes with the variation selector. We cannot grandfather an open-ended list. We may not be able to deal with it at this meeting. We can take an action item – for example, for the UTC, Ireland, US etc. to create an Annex and other text and submit to WG2.
e. Dr. Umamaheswaran: The Variant Selector definition is incomplete without a fixed list.

Disposition: Accepted.

Action item: .Ad hoc to meet and provide the necessary text to WG2 before end of this meeting. Mr. Michel Suignard to lead the ad hoc. Messrs. Asmus Freytag, Ken Whistler, and Michael Everson are the other ad hoc members.

Editorial comments. Accepted.

2) Germany – Approval with Comments

Comment 1: Add a note to remove Hebrew characters.
Discussion:

a. Mr. Michael Everson: We requested WG2 to specifically for two separate collections – one including the RTL collections and another one without it.
b. Dr. Umamaheswaran: We did point out that others could use the collection identifiers – excluding any specific items.
c. Dr. Asmus Freytag: We can accommodate the request.
d. Dr. Ken Whistler: There is no notion of Bidirectionality in the standard.

Disposition: Accept in principle. The editor will update MES 3b definition to exclude the specific Hebrew characters from the collection.
Comment 2: Re: "10646 Unicode" collection.
Collection name will stay unchanged. It is an open collection that covers currently encoded code positions in planes 0 through 16.
Disposition: Accept in principle; clarifying text is added.
Comment 3: Greek character names should be checked with Greece.
Disposition: Accepted in principle – Greece has accepted these names. Ireland and US want these.
Comment 4: Archaic characters in the BMP.
While the roadmap may indicate Archaic characters to be in Plane 1, it does not prevent encoding of Archaic characters in the BMP. There is also precedence such as Ogham. Implementation problem of splitting scripts between planes should also be considered.
Disposition: Not accepted.

3) Ireland – Disapproval with comments.

Comments from Mr. Bruce Paterson in document N2320 have been folded into the Irish comments (also in the US comments).

Technical Comments:

Items 1.1 and 1.2 – Accepted.
Item 1.3 - Proposal to extend the Cyrillic block instead of Cyrillic supplement. All the table numbers and titles have to be aligned. These have to be fixed in FPDAM-1.
Discussion:

a. Dr. Asmus Freytag and Dr. Ken Whistler: Current Cyrillic Block definition if changed can have impact on the range assigned to the block in implementations.
b. Mr. Michael Everson: We withdraw this comment about extending the Cyrillic block. We request to change the block name to CYRILLIC SUPPLEMENT.

Disposition: Accept: "CYRILLIC SUPPLEMENT" will be used instead of "CYRILLIC SUPPLEMENTARY".
Table 154 – row should be FA instead AF. The list should be corrected.
Note under item 1 and item 2 (probably elsewhere, should identify only those character positions that are explicitly added in the PDAM-1 to the standard.
Disposition: Accepted.
Item 2 - Page v – Foreword
Change the wording to – Replace " …(copy sentence from current 10646:1 2000 E)…. '' with "—Part 2: Supplementary Planes".
Disposition: Accepted.
Item 3 – Accepted.
Item 5 – Reword USI to read better – Accepted.
Item 6 – Accepted
Item 7 – Accepted. Additional comments on this topic later.
Item 8 – Add Cyrillic Supplement to be added to Open Collection MES-3a.
Discussion:

a. Mr. Michael Everson: The original intent was to add additional Cyrillic characters as part of European repertoire.
b. Dr. Kent Karlsson: MES 3A / 3B – are both under the auspices of CEN ISSS. Also, why not add additional Math symbols?
c. Mr. Mike Ksar: I would like to get more confirmation about these additions. We should touch base with the submitters / original submitters.
d. Dr. Asmus Freytag: We can possibly put on this hold. It troubles me to ask the question of who defines the collections – I would like to assert that WG2 has the ultimate authority and we do have a process in place. I would like to establish the policy that a fixed collection should not be changed by further amendments. If we entertain a proposed change to an existing fixed collection, then the collection number cannot be changed.
e. Dr. Ken Whistler: Are we going to be consistent only for Cyrillic? Why not Greek? Once the MES-s are FINAL in the standard, what assurance we have that there will not be future changes of such nature? Irish comment itself is inconsistent – because from Cyrillic and Greek. MES 3A – is already open and includes the Greek. The MES-3B also includes the Greek characters. What would be the process – if someone said that we originally requested for collection x? They come up with some additions later – with the feeling of ownership to them.
f. Mr. Michael Everson: The Math symbols are in the MES-3. I have polled the CWA members and there has been no objection. Ireland and Finland are the original submitters. We have to explicitly include the additional Greek characters. As far as the fixed collection is concerned, we understand the arguments. Ireland may come back with additional collections.
g. Dr. Umamaheswaran: Principles and procedures document does give some guidelines. Even for open collections – we have to provide the bounds within which a new collection id or existing collection id decision will be based.
h. Mr. Michel Suignard: The asterisk convention used for FIXED collection etc. has to be revisited. It is confusing with others.
i. Dr. Ken Whistler: Check MES-2 definition etc. The text in the standard includes automatically 20—7E. Does this mean that collections need not explicitly duplicate this range? BMP includes this now. May be it is only for SUBSETS.

Disposition: Not accepted till we get more clarification on the requirements to change the MES definitions.

Action items:

a. Mr. Mike Ksar will check other CEN sources to get additional confirmation for the change in the MES collection definitions.
b. Dr. Umamaheswaran to revisit and enhance if needed the Collection Submissions in principles and procedures document.

Item 9 – Accepted.
Item 12 – Accepted. Japan (Mr. Takayuki Sato) will provide Title of JIS X0201 to the editor. Being a national standard we will follow the same format we use for other national standards.

Action item: Japan will supply appropriate text for referencing JIX X0213.

Item 15 – New Recycling Symbols -- Six new characters were requested.
Discussion:
Dr. Asmus Freytag: The US also requests the first four. The Unicode Technical Committee has approved these four.
Disposition: Accept these four with adjusted character names. Document N2328 – page 3 has the glyphs; the names are to be taken from page 22 in document N2335 (US Comments) with PARTIALLY-RECYCLED for U+267D (add hyphen in the name); 267A, 267B, 267C and 267D will be the code positions.

The other two recycling symbols – DO NOT LITTER SYMBOL and RECYCLING SYMBOL FOR GLASS - are also in document N2342, which proposes additional recycling symbols – see discussion in section 7.4 on page 27.
Discussion:
a. Dr. Ken Whistler: The US committee has discussed these two additional recycling symbols. These were not accepted by UTC and US committee at this time. There are still open questions on these.
b. Mr. Michael Everson: I have seen these on many objects in Europe. They can also be seen in Typographic Contexts. They are everywhere, but we can accept a delay.
c. Dr. Asmus Freytag: The UTC members have seen these only on large symbols on boxes. The kind of evidence you are claiming in Europe is not brought to their attention. We can delay their acceptance.

Action item: All NBs are requested to review document N2342, especially the two recycling symbols - DO NOT LITTER SYMBOL and RECYCLING SYMBOL FOR GLASS.
Table 149 - Supplementary Arrows – Row 29 and Table 150 - Miscellaneous Math Symbols – Row 29
Corrections to names – remove “TO THE” in the names -- accepted.
Ireland withdrew some of their comments on Table 152.
Loopy L is what Ireland wants for the letter-like symbols. In Row 21
(See document N2355 – for disposition of the several editorial comments that are not recorded in these minutes).
Glyphs for Recycling Plastics Symbols:
Discussion:
a. Mr. Michael Everson: Text will NOT be added inside the Glyphs. Parenthetical annotations to the names are proposed to be extended to include the full name of the plastics. Abbreviation is NOT sufficient.
b. Dr. Asmus Freytag: The main purpose of the annotations should be to clarify the names, and the annotations are to assist the glyph that can contain the short form. Translations can choose to have different names.
c. Mr. Mike Ksar: For people who need to translate we need not have any annotations. In Athens we decided not to have any annotations. The annotation is causing problems.
d. Mr. Alain LaBonté: We will not object to have long annotations. The long names would be useful. The annotation should be all in lowercase.
e. Dr. Ken Whistler: The long annotations will appear in the Unicode book. The PDAM text has short annotations now. We could live with these.
f. Dr. Umamaheswaran: The annotations were added after Athens meeting – it is not in accordance with the Athens instructions.

Disposition: Keep the annotations - as on page 9 – with lowercase short names as annotations.

Mr. Michael Everson: IRELAND – Changes its ballot to YES based on the above dispositions.

4) Japan – Disapproval with comments.

Technical Comments

Comment 1: Japan would like to see the foreword NOT to close the door on new parts.

Discussion:

a. Mr. Michel Suignard: WG2 consensus is that we should not add any more parts. We can add more planes to Part 2.
b. Mr. Mike Ksar: Currently we define only two parts. We will stay with two parts. If we need more parts we can extend the scope.
c. Mr. Takayuki Sato: We would like to take a note of the fact that scope of Part 2 may be extended to add additional planes if needed.
d. Mr. Michel Suignard: Wording in Part 2 scope is to be checked. Probably the wordings are already there.

Comment 2: Accepted.

Comment 3: We need a note to explicitly state the need for the Item 2, sub item page 8 clause 9.

Discussion:

a. Mr. Michel Suignard: I think the proposed note goes somewhat against what we agreed to.
b. Dr. Asmus Freytag: Unless every code position is used up.
c. Dr. Ken Whistler: The proposed note is recasting existing note in terms of planes and groups, except for the last clause.

Disposition: Accept in principle – without the phrase "unless it is recognized .. requirements".

Comment 4: Accepted: Private Use Planes 0F and 10.

Comment 5: Accepted.

Comment 6: On the change to notation – 4 to 6 digit notation. Feedback was required from SC22.

Discussion:

a. Mr. Takayuki Sato: Japan has not had any feedback from SC22 – for example, the C-Language community.
b. Dr. Asmus Freytag: The four to six digit notation is used extensively in Unicode. In the interest of synchronization we should retain them.
c. Dr. Ken Whistler: I do not see why programming languages cannot use their own syntax. The proposed terminology does not prevent anyone from using fixed length short identifiers. They can also use the full 8-character identifier if they choose.

Disposition: Not accepted: The programming languages have the freedom to fix the widths and number of characters in their identifiers, corresponding to the short identifiers in the standard.

Comment 7: Explanatory text on the use of UCS is asked for.

Discussion:

a. Dr. Umamaheswaran: The standard should simply have a definition of the sequence identifier. Explanatory note on using the UCS is provided in the principles and procedures document. As I mentioned during the discussion on the revision to the principles and procedures document, I had added a note in the Principles and Procedures document on using a USI in a collection submission.
b. Dr. Asmus Freytag: Collections – do not permit sequence identifiers at this time. So USIs are NOT permitted in the collections.
c. Dr. Ken Whistler: We have discussed this topic in Athens. We have not agreed to include a USIs in collections. We may not be prepared to accept collections containing USIs.
d. Mr. Mike Ksar: We have agreement in principle – during our discussions in earlier meetings – to permit Sequence Ids in collections.
e. Mr. Takayuki Sato: When I define a subset using which I may be able produce different sequences, and if I specify only a subset of sequences, what should happen?
f. Dr. Asmus Freytag: There are specifications outside the standard, there are subsets, and there are collections. If we need to give people a way of defining a subset as series of collections etc. The current definitions of subset does allow you to specify for example, n with tilde, but does not allow for example x with tilde. With the subsets, do we see a need for defining a subset in which we will permit specific combinations? If the answer to the question is yes, the current collection definition needs to be updated. Outside 10646, one still needs to be able to specify restrictions on combining sequences.
g. Dr. Ken Whistler: In terms of whether a subset should include specific sequences be restricted or not – specific combinations should not be permitted.
h. Mr. Mike Ksar: The answer to the subset question should be NO.

i. Dr. Asmus Freytag: If that is the case – expression of subsets through the use of collections cannot contain USIs. Selected subsets contain collections.
j. Dr. Umamaheswaran: One of the original intents of collections in the standard was to replace registrations such as 7350.
k. Dr. Asmus Freytag: We may have to define some other type of collections to be used in repertoire definitions and not in subsets.
l. Mr. Michael Everson: I have said loudly that we do not want 10646 to define repertoires of characters. I do not want us to become a registry of repertoires for example to replace and include compositions and decompositions etc. in 10646,
m. Mr. Mike Ksar: May be we should not permit USIs in the principles and procedures as part of requests for collections. Since collections was to define subsets only. Usage of USIs may be only for the purposes of identifying specific sequences outside of 10646. Subsets may not contain USIs.
n. Dr. Umamaheswaran: I do have concern that we are not stepping up to what we set out to do, i.e. providing alternatives to 7350 being expanded. An SC2 work item on the subject of registration of sub-repertoires was balloted down on the expectation that 10646 will provide the means of being able to do that – and collections was the means to do it.
o. Dr. Ken Whistler: We have to consider ramification of using USIs in collections and therefore in subsets of 10646.
p. Mr. Takayuki Sato: Use of USIs must be clarified in the standard. A simple definition is not sufficient.
q. Mr. Vladas Tumasonis: The sequence id – in my perception – allows me to extend UCS repertoire.
r. Dr. Kent Karlsson: USI is nothing but a formal notation to identify a sequence. It does not extend the UCS anyway.
s. Mr. Mike Ksar: The USI permits you to map the Lithuanian repertoire to UCS. The UCS repertoire is OPEN ended – combination of any sequence of characters is permitted. Explicit combinations are not specified in the standard.
t. Mr. Michael Everson: I can add as many combining characters etc. together as needed.
u. Dr. Ken Whistler: One of the rationales for this mechanism, is to permit for example Lithuania to specify "here is a list of things that must be supported" --- it permits you to associate the sequence using an USI to identify what you need to be supported in resources. It also signals to Keyboard input, font definition, font standard writers etc. It enables the communication of such information to different software / hardware providers. The USI permits you to specify which units are significant.
v. Mr. Vladas Tumasonis: In Lithuania, we are using this mechanism to identify the glyphs needed.

Disposition: We will add a note restricting use of USIs only for use in identifying sequences for the purpose of mapping to and from external standards, and for their use in other documents in their definition of repertoires, resources etc. They will not be allowed in collections, and therefore in subsets of 10646.

Action item: Dr. Umamaheswaran to update the information regarding USIs in the principles and procedures to reflect the above disposition.

Comment 8: Accepted,

Comment 9: Item 6, page 8 clause 8 – Some comments were accepted in principle, others were not accepted. Text is modified to clarify.

Comment 10: Page 8 Clause 8 – needs a distinction between "Permanently Reserved" versus "Reserved" terminology. "Not specified in this standard" was ambiguous.

Japan is invited to suggest an appropriate note.

Discussion:

a. Dr. Kent Karlsson: The context in Note 2 is not necessarily restricted to within the BMP.
b. Dr. Umamaheswaran: Suggest remove the phrase "within the context of the BMP" under NOTE 2, on page 12.

Disposition: Comment from Japan was not accepted.

Comment 11: Item 7 sub item page 8,clause 8.

Mr. Michel Suignard: This comment was made at the request of USA. A code position may be unassigned. But a character in the standard is defined by its assignment to a code position. The note was aimed at dealing with code positions that are unassigned.
Accepted in principle.
Comment 12: Name of collection 180.
We will keep the name as CJK UNIFIED IDEOGRAPHS-2001, removing "ALL"; it remains a fixed collection. When ext-C comes up, we will create another fixed collection later.
Second item is accepted.
Comment 13: Item 14 - Accept in principle.
End of clause S.1.6 – Source separation rule applies ONLY to CJK Unified ideographs.
Comment 14: Shapes of JIS X0213 characters – Accepted.
Japan will supply suitable fonts. Kana has to cover all existing Kana characters also.
As to the Dentist symbols, glyphs do not seem to look square. We need to know why current glyphs are not acceptable. A single font is needed for a range.

Action item: Japan will supply suitable fonts for the glyphs from JIS X0213.

Discussion:

a. Mr. Takayuki Sato: There was also question about use of DENTIST in the name. See Swedish comments.
b. Mr. Michel Suignard: Issues like small size versus large size etc. have to be addressed.
c. Dr. Asmus Freytag: Consistency within the same chart should be OK. Minor pixel versus pixel difference should be acceptable. For example, the same style should be used.

Comment 15: Requested additional information to Annex P.
There are brackets in this list, which have the use with Math issue; there are others like Fisheye etc. involving size variation issue.

Discussion:

a. Dr. Ken Whistler: In Japanese typography there are two shapes that show up as alternative glyphs. That is why the annotation. As to the spacing issue, usage as Math characters and associated width issue is also there.
b. Dr. Asmus Freytag: The notation has to be changed to indicate alternate glyph for this character.
c. Mr. Takayuki Sato: As an extension of Math ad hoc – these parentheses should also be included.
d. Dr. Asmus Freytag: There is a difference of opinion within the ad hoc on unification of math symbols with the 3000 range of characters -- one aspect versus another etc. – there was no unanimity.
e. Dr. Ken Whistler: as to these parentheses, there is enough confusion to add an annotation. But for the others, there are so many separate characters with different shapes that are in the same category but should not be included in Annex P.
f. Dr. Asmus Freytag: We could take a work item to include these characters to add information for the Unicode standard along with other size related items.

Disposition: Accepted in principle. Add annotation only where it is appropriate.
Comment 16: New Annex on compatibility ideographs
Proposed text for annexes.
T.3.1 – KS C 5601 list of ideographs
T.3.2 – Name Microsoft/IBM compatibility ideographs (range to be fixed), name will change to Unicode compatibility ideographs.
T.3.3 – JIS X 0213 – new.

Discussion:

a. Dr. Ken Whistler: Why are we going down the line of adding this information about mappings into 10646 as annexes? These have been made available as DATA files on the Unicode web site.
b. Mr. Takayuki Sato: If we add only JIS X 0213 to the standard, there will be questions asked. We can either chose to add T.3.1 and T.3.2. There is also a typo in the compatibility data for Part 2.
c. Mr. Michel Suignard: The intent is to put such source / mapping information as data tables.
d. Mr. Mike Ksar: We could point to Unicode data tables for existing compatibility ideographs, instead of adding to 10646.
e. Dr. Ken Whistler: Part 2 – deals with this topic in the form of a data file.
f. Dr. Umamaheswaran: The only reason we are doing this in Part 1 is to be consistent with Part 2.

g. Mr. Michel Suignard: I was planning to follow the same model as in Part 2. Extract the information from the database. What should we do with the text? Should these be normative or informative? T.1, T.2 could be informative and moved to annex S. The mapping information T.3 is normative. We could create a new normative clause for the mapping related text and point to an annex containing the pointers to data files.

Disposition: The compatibility ideographs source information will be in the form of data tables (similar to Part 2). New clause and an annex to point to containing the file names.
Comment 17: Noted – with reservation by Japan.

JAPAN changes its Disapproval ballot to Approval.

5) Sweden -- Approval with comments.

SE1: Out of scope of PDAM-1.
SE2: A pointer to informative Annex F will be included.
Sweden – there is a related question regarding Ideographic Description Characters – are these Graphic Characters – and is subject to separate technical corrigendum (out of scope of PDAM-1).
Action item: Sweden is invited to submit a separate contribution on the question on nature of IDS, definition of character etc.
SE3: The current definition of short identifiers – should be changed to extend to identify code positions also. Accepted the text proposed by Sweden modifying the title.
SE4: UIDs .. Leading zeroes - change wording. Accepted. Also Hyphen Minus – partially accepted.
SE5: USI definition aligned with UID changes.
SE6: Double struck Sigma – is n-ary summation. Accepted.
Double PI – is NOT n-ary product. Sweden withdrew request for this character.
Rename DENTIST to DENTISTRY symbols … should it be DENTAL? Accept DENTISTRY.
ScanLines – the names of characters came from VT100 terminal manual. These symbols are for terminal emulation software. Nowadays there are multiple scan lines in terminals and these names do not make sense. Sweden withdraws the comment.
Action item: Sweden is invited to propose annotation text regarding ScanLine characters for inclusion in the Unicode standard.
2144 / 028E .. One is called INVERTED and the other is called TURNED. This is a question on the names.
Discussion:

a. Mr. Michael Everson: Sweden's question is valid and the name change may be warranted, looking at the other characters in the set.
b. Dr. Asmus Freytag: You may be theoretically correct. It does not make any difference to the semantics. I would not have serious objections to make adjustment of these names. My preference is not to raise the issue again at a later date at the FDAM stage.
c. Mr. Mike Ksar: If you can live with the names we should stay with it.
d. Mr. Michael Everson: (the next day) With reference to the Swedish comment on some of the Math character names, Ms. Barbara Beaton gave feedback. They prefer to use TURNED instead of INVERTED.

Disposition: Accepted.
SE 7: There was a gap left in some code positions.
Discussion:

a. Dr. Ken Whistler: There are positions left for didactic purposes. There were enough positions for superscript and subscript positions. Superscript for 1, 2, 3 are over at other locations.
b. Dr. Asmus Freytag: In my personal opinion, there are gaps – within well-defined ranges of code positions, and gaps outside. We have possibly generated the expectation that gaps are left for completing some sequences. We have continued this with Math also. Sweden has identified a few characters in gaps. US and UTC position is that the BMP is coming closer to being full. We have started filling holes in Cyrillic positions for example.
c. Dr. Kent Karlsson: There you did not expect any transient mappings.

d. Dr. Ken Whistler: For Math Alphanumerics, there is an expectation for transient mapping due to plane crossover. However there is no agreement on superscript etc. for transient mappings between BLOCKS within the same plane.
e. Dr. Asmus Freytag: Personally, I have some sympathy for the Swedish comments. With more information on why some of the gaps were reserved – the part that has to do with reservation of gaps in the BMP (PDAM1) should not be accepted. Unicode position is to fill the gaps in the BMP.
f. Mr. Mike Ksar: We do not permanently reserve code positions in 10646.
g. Dr. Asmus Freytag: That is nice to say; however that is not what we told the Math and Music Symbols user groups.
h. Mr. Michael Everson: I would like to fill as many holes as possible with other characters.
i. Dr. Kent Karlsson: Would you fill Math Alphanumeric Symbols also?
j. Dr. Ken Whistler: We tried to keep like characters together. Gaps in like character range will be in general used for future like characters. Gaps in the BMP are NOT to be used for transient mappings. For example, all superscript characters will be kept together and if there are any gaps these will be used for future superscript characters. Some gaps in Plane 1 in Math Alphanumerics and in Western Musical Symbols – are left there for transient mappings, since the set of characters needed for these scripts were already encoded in the BMP before their encoding in Plane 1.

Action item: Dr. Umamaheswaran to note in principles and procedures – we do intend to respect the gaps in math alphanumeric range for potential use of transient mappings when a set crosses plane boundaries.

SE8: Requests permanently reserve all gaps in Math Alphanumerics range. Out of scope of PDAM-1.

Action item: Sweden is invited to make a contribution.

SE9: Greek characters were moved. The REVERSED LUNATE EPSILON was moved to be with more like characters.

Discussion:

a. Dr. Ken Whistler: In the US committee we did not like the decision to move.
b. Mr. Michael Everson: The Turned Glyph – we could take another look and decide to move.
c. Dr. Asmus Freytag: As long as they are in the BMP it does not matter where it goes. Most typographical systems do not care.
d. Dr. Kent Karlsson: We prefer to move the character. The name of the character is a question to be answered.
e. Dr. Asmus Freytag: In the process of moving the character the names could have been made possibly more consistent.
f. Dr. Kent Karlsson: Sweden withdraws this comment.

SE10: Sweden withdraws this comment.

SE11: Accepted in principle. There are several invisible characters in general punctuation characters. The block name General Punctuation is also the place where the Alternate Format characters have been traditionally included.

SE12: Glyph size of Lunate Sigma and Lunate Epsilon should be much larger. These should be similar except for the bar.

Discussion:

a. Dr. Asmus Freytag: The glyph for the Sigma is correct. Not sure about the Epsilon.
Noted - will take care of when we get better font. There are several other characters EURO, ESTIMATED SIGN, L B Bar etc. – which are not directly related to PDAM-1. ESTIMATED SIGN has been improved with better font. However, I do not agree with at least cap height etc. L B BAR – needs some more investigation to see if the swash glyph is the correct one. We have to be careful that it does not break anything else. For the EURO SIGN – what is in place is the Time New Roman font. The symbols in the LaTex list (in the Times New Roman version) are similar. Individual currency signs use different fonts.
b. Dr. Kent Karlsson: Purpose of these requests are to ensure that I can pull these symbols from a data base of characters and use it as is, with no additional information about how to size etc.

Disposition: Noted. Out of scope of PDAM-1.

Action item: (All NBs) LB Bar glyph will change. NBs to review the changed glyph in FPDAM-1.

(Review by experts to confirm that the changed glyphs are acceptable. Otherwise, we need to retain the current glyph).

Disposition: Noted. Out of scope of PDAM-1.

i. Page 20 – several glyphs are reported to be not correct.

ii. 292B to 2932 – knot arrows (accepted in principle)

iii. Underlined brackets 298B and 298C (if the underline shows when it gets printed the brackets may have to be little smaller I will not take action.)

iv. 2A0A and 2A0B – n-ary sums / integrals.

v. Unable to show all symbols without scaling down properly. During the scaling operation there may have been error – increase the size of 2A0B slightly to match 2A0A. One has a descender and the other has not. Size of 2A0A is dependent on something else. The source font available shows 2A0B is smaller in size.

vi. 20E6 – accepted with proper font.

Action item: The contributing editor, Dr. Asmus Freytag is to investigate and confirm the size is correct.

SE13: Sweden asked for specific definitions for SPACE, NBSP, and NBH (these were talked about in relation to 8859 parts in the last WG3 meeting. These came out of a discussion related to the use of these characters).

Discussion:

a. Dr. Asmus Freytag: Possibly these should be in Line Break etc.
b. Dr. Ken Whistler: How much information about characters etc. should be included in the standard in these annexes?
c. Mr. Michel Suignard: Soft Hyphen is very often wrongly implemented by many, so the annotation about Soft Hyphen would be useful.
d. Dr. Kent Karlsson: Sweden agrees to withdraw all but the Soft Hyphen.

SE14: Check content of S.3. Do these have any examples or exceptions? The term Source Code causes all kinds of questions. Response: It is used in the past heavily by IRG.
Sweden withdraws comments SE14 and SE15.

SE16: Accepted.

SE17: If a collection is FULL and range is fixed then we can add a '*' annotation. Note: Open Collections cannot be amended by extending the ranges.

Action item: Dr. Umamaheswaran to clarify in the principles and procedures document that an existing open collection cannot be amended by extending the ranges; a new collection has to be defined if the ranges are extended.

SE18: Accepted

SE19: Math ad hoc to decide. See Math ad hoc report.

SE20: Typos - all accepted.

6) USA – Approval with Comments

T.1: Khmer Block
Request to remove 17DD KHMER SIGN LAAK from the PDAM-1. This is a glyph variant of 17D8 KHMER SIGN BEYYAL.

Discussion:
Mr. Michel Suignard: It is difficult to accommodate the comments without legible glyphs accompanying comments.

Action item: All national bodies are to include legible glyphs if you are making ballot response comments containing / referencing glyphs.

Discussion:

a. Mr. Takayuki Sato: I have contacted the original requester – awaiting feedback.
b. Dr. Ken Whistler: Feedback from Khmer experts on Khmer punctuation is that this symbol is shown with different punctuation symbols etc. and is a glyph variant.
c. Dr. Asmus Freytag: We need to know if the glyph variation appears in different parts of the same text.
d. Mr. Michael Everson: I have talked to Mr. Maurice Bauhan – it looks like this character is a doubtful one for now. We can postpone it.

Disposition: Accept. Remove from PDAM-1 till further clarification is made available.

Action item: Mr. Michael Suignard (US national body) will get a cleaner copy / rationale with glyphs of 17DD Khmer Laak and 17D8 Beyyal suitable for Mr. Takayuki Sato to be able to send for feedback.

T.2: Accepted.

T.3: Accepted in principle. It is similar to Irish request.

Dr. Umamaheswaran: How come the word SYMBOL is missing from the proposal - RECYCLED PAPER SYMBOL etc.?

T.4: Black instead of Filled, White for the complementary ones. Accepted in principle.

T.5: Request for removal of U+FA4A, FA5E, FA5F, and FA67 – these are duplicates.

Discussion:

a. Mr. Takayuki Sato: These are mapped to existing CJK Unified Ideographs. Some mapping implementations are treating the Radicals differently from Ideographs. Look at the mappings given in Japanese comments. We may end up in equating these radicals to be the same via mapping to another CJK character. The compatibility ideograph character is asked for the specific reason of implementation mapping etc. The Radicals are NOT the same as the Ideographs. We should not unify these. One could state that they have the same shapes. Also, in some implementations, there is block-name dependency for properties of Radicals versus properties of Idoegraphs.
b. Mr. Michel Suignard: The properties are practically the same between the radicals and ideographs.
c. Dr. Ken Whistler: These are the same as the four characters already coded as radicals. The argument is that the ideographs which are already unified with some Han characters means we will have yet another duplicate. For the issue of mapping, I believe we can use the existing radical code points. However, the argument presented is that the treatment of the Radical block is different from Ideographs etc. These are Radicals even in JIS X0213 in their function, though they are not in the block of radicals. In the current mappings we have do not map the corresponding radicals to the corresponding Han characters.
d. Mr. Takayuki Sato: The mapping issue and block issue are different. The block issue may cause breakage of implementation designs. Feedback from Microsoft Japan is that if they are in the Radical block it will be different.
e. Dr. Ken Whistler: Round trip mapping is NOT an issue. Can the implementation treat Radicals in the 2E block differently from the Han characters in Unified Han block?
f. Mr. Takayuki Sato: We decided at one time that radicals and Han are NOT to be unified. It is possible to say all of Radicals could be treated as equivalents of unified Ideographs. WG2 has already decided to treat these separately and not treat them as equivalents. We end up in having to change the unification. This will have impact on Extension B also. The reason for the WG2 decision was that if it is an ideograph it will be considered for unification.
g. Mr. Zhang Zhoucai: WG2 in Singapore decided that these are separate. The submitter decides whether the character is a radical or ideograph. This has been a long time argument in the IRG.
h. Dr. Ken Whistler: If these four characters are correctly identified as in the US comment, you do not need to encode a radical every time the same radical shows up in different source standard, if you decide on shape-based unification.
i. Mr. Takayuki Sato: Unification is not done by shapes alone. Even if we decide to treat these the same as the suggested radicals, we have to go back and check if these ideographs are the same as the radicals or not from the expert sources.
j. Mr. Michel Suignard: Do you unify radicals or not?
k. Dr. Ken Whistler: Source unification is going on rather than character unification. The shapes of radicals – one-dot form and two-dot forms etc. are in the radical block. If we declare that these are radicals and are not unified with the Han under the same rules, the Microsoft Japan issue would be that they have an implementation between JIS X0213 and a unified Han list that is here. If an encoding is done in 10646 that corresponds to the mapping to the same Han, we may have presentation problems.
l. Mr. Takayuki Sato: When it comes to compatibility characters we always get into these arguments. Why don't we just treat these as the Junk characters – as a necessary evil?
m. Mr. Michael Everson: I understand that these are duplicates. We should not be encoding these.
n. Mr. Michel Suignard: JIS X0213 has been around for some time and having a stable mapping to 10646 is the main issue. I cannot comment on what is behind the implementation problems.

o. Mr. Takayuki Sato: WG2 had decided to accept the proposal to include these characters and include in PDAM. These are triplicates and there are also several other triplicates. People are using these.
p. Mr. Mike Ksar: I suggest – due to the implementation hits and previous WG2 decisions, to reject US request for removing these.
q. Dr. Ken Whistler: Obviously it was a bad decision to include these four characters. But we have accepted these in earlier WG2 meetings.

Disposition: Not accepted. The characters will not be removed.
T.6: Accepted
T.7: Accepted – discussed earlier.
T.9: Not accepted – per earlier discussion (came from Mr. Bruce Paterson).

Editorial Comments

E.1, E.2, E.3 – accepted.
E4 --<UID1, UID2, .. UIDn>, (UID3 goes away).
E5, E6, E7 – Accepted.
E8 – partially accepted.

Dr. Asmus Freytag: Unicode has accepted a number of PDAM-1 characters. There are some characters that are not yet in the PDAM-1, but have been accepted in the UTC. UTC processes characters sometimes not yet considered by WG2. We would like to keep these in synchronism as long as it does not derail the processing of the PDAM.

Dr. Ken Whistler: US is satisfied with the disposition of comments and reverses its vote to Accepted.

(Note: Please note that it was not always possible to follow and capture the discussion and comments made by delegates at the meeting – the editor will prepare the new disposition of comments – please check the revised document N2355 for the final disposition of comments – UMAmaheswaran)

Relevant Resolutions:

M40.4 (PDAM-1 to 10646-1:2000):	**Unanimous**
WG 2 accepts the disposition of comments in document N2355 to ballot responses in documents N2328 on PDAM-1 to 10646-1: 2000. WG 2 particularly notes that the character at 17DD KHMER SIGN LAAK has been removed (pending further clarification), four new Recycling Symbols have been added, 25FF was moved to 27D0, and new 25FF LOWER RIGHT TRIANGLE was added. Also some character names and several character shapes have been refined, in PDAM-1, per national body comments. WG 2 instructs its editor with assistance from the contributing editors to prepare the text for FPDAM-1 reflecting the disposition of comments and the additional characters accepted per Relevant Resolution M40.5 below. WG 2 further instructs its editor to submit the FPDAM-1 text along with the disposition of comment to the SC 2 secretariat for further processing with unchanged target completion dates -- FPDAM 2001-10, FDAM 2002-02, AM 2002-06.	
M40.6 (Correction of Glyph Errors):	**Unanimous**
WG 2 acknowledges several glyph errors in 10646-1 reported in the ballot responses in document N2238 to PDAM-1 and instructs its editor with assistance from the contributing editors to add the necessary corrections to the editorial corrections accumulated at the end of meeting 39 (updated document N2232 to be prepared by the editor per Relevant Resolution M39.5, in document N2254R). WG 2 further resolves to process those glyph corrections needed for the code tables in FPDAM-1 as part of FPDAM-1, and instructs its editor with assistance from the contributing editors to include the necessary corrigenda in FPDAM-1 text per Relevant Resolution M40.4 above. WG 2 further instructs its editor to create with the assistance of the contributing editors the text for a corrigendum to 10646-1: 2000 containing the remaining items from the editorial corrigenda, and submit to SC 2 secretariat for further processing as a minor revision.	

7.2 Accessing 10646-1:2000 CD ROM files

Input document:
N2296R Accessing the ISO/IEC 10646-1:2000 CD-ROM; Everson; 2000-11-04

Mr. Mike Ksar: The filenames on the CDROM for 10646-1: 2000 were not very useful. I suggested some changes to the names. Mr. Michael Everson has come up with further revisions to my original suggestion. This contribution may have impact on the filenames to be used in the final publications. ITTF decided to give their own filenames.

Discussion:

a. Mr. Michel Suignard: We have a single page with some acronyms with correct pointers to CDROM.
b. Mr. Mike Ksar: ISO – if they come up with their own file names on the CDROM, we must have a way out.
c. Dr. Umamaheswaran: Does ISO have conventions for CDROM publications / filenames etc.?
d. Mr. Michel Suignard: We also have a similar issue regarding the file names and the data files – the data files are not meant to be printed on paper. Either ITTF gives us guidelines or we are on our own in WG2.
e. Mr. Michael Everson: Document N2296R sets out to give guidelines for Mac users of the CDROM as an aid. The editorial committee should decide on how to break up the document into meaningfully named files.

Action item: Editor / Editorial committee to take care of naming of files on the CDROM to be suitable for ease of use of the standard.

7.3 On the letters ENG and N with Long RIGHT LEG

Input document:
N2306R On the letters ENG and N WITH LONG RIGHT LEG; Everson; 2000-11-27

Mr. Michael Everson: The document N2306R is a request to add the capital form of existing character U+019E Latin Small Letter n with Long Right Leg -- used also in Lakota in North America. Small letter came from IPA. Upper case is requested to be added. Examples are given in document N2306R.

Discussion:

Dr. Ken Whistler: UTC has reviewed this proposal and has accepted this for adding to the Unicode standard. UTC supports this request.

Disposition: WG2 accepts the proposal; encode at position 0220 in the BMP, with the name LATIN CAPITAL LETTER N WITH LONG RIGHT LEG, with glyph shown in document N2306R in section 5c, for inclusion as part of FPDAM-1. *See relevant resolution M40.5-item a (at the end of section 7.15 on page 36).*

Action item: A font for Latin Capital Letter N with Long Right Leg - is available from Mr. Michael Everson – to be given to Dr. Asmus Freytag.

7.4 Background information on Recycling Symbols

Input document:
N2310 Background information on Recycling Symbols; Everson, Freytag; 2000-12-22
N2342 Background info on recycling symbols – N2310 Update; Freytag; 2001-04-02

Mr. Michael Everson: Dr. Asmus Freytag and myself have been doing more research into Recycling Symbols. It has influenced our ballots on PDAM. Document N2342 is an updated document N2310 – for background information to WG2.

Discussion:

a. Dr. Umamaheswaran: The researchers did not complete their investigation into the multi-lingual aspects etc. of these symbols.
b. Dr. Asmus Freytag: There is an update to document N2310 – and can be made available as background information. Some of the symbols will be covered under different agenda items. Some of the symbols may come in as request for additions through other documents.
c. Mr. Mike Ksar: No action on this agenda item at this meeting. It is just background information.

7.5 IPA Tone Letters / Contours

Input document:
N2307 Response to Japanese Query re IPA tone letters; US; 2000-11-27
N2312 Presentation of tone contours encoded as UCS tone letter sequences; Peter Constable; 2001-01-08

Document N2307 is a response to Japanese NB query in document N2195. It contains a discussion responding to a comment from a Japanese expert regarding IPA tone letters, how they are supposed to be used, how you can relate to Tex systems etc. Document N2312 is an expert contribution from Mr. Peter Constable, SIL. It shows an existing implementation by Graphite system – how the Tone letters are actually used; it shows all the font elements and all their combinations in their implementation, as intended by the standard. These two documents are to be taken together as response to Japanese expert's proposal for new tone letters, which are really presentation forms of what can be constructed with what is in the standard.

Discussion:

a. Mr. Takayuki Sato: We received these a few months ago – and we presented it to the originators. They are not satisfied with the response, but have not come back to us. In our ballot comments for PDAM-1 – Japan is not asking for these characters, but are on hold. It may be closed for PDAM-1 – but may come back later.
b. Dr. Ken Whistler: At least the rationale for the tone letters is clarified. If they are not happy the proposers should take it up with IPA – if they want more IPA Tone Letters.

Disposition: Mr. Mike Ksar - as far as WG2 is concerned, the issue of IPA Tone letters is closed unless Japan comes up with more rationale.

7.6 Roadmap – BMP

Input documents:
N2313 Roadmap – BMP; replaces N2213; Everson; 2000-10-01
N2316 Roadmap – BMP; replaces N2313; Everson; 2001-01-10

Document N2316 reflects all the agreed upon changes from meeting M39.
Action item: NBs to review and feedback.

7.7 Mathematical Symbols

Input document:
N2336 Additional Mathematical Symbols – updated N2318; Freytag, Beaton, et al; 2001-04-02
N2343 Math Symbols (Long Arrows) Input from Ireland; Everson; 2001-04-03
N2345 Disunify brackets; Karlsson; 2001-04-03
Output documents:
N2344 Math ad hoc report; Freytag; 2001-04-03
N2345R Disunify brackets; Karlsson; 2001-04-03
N2356 Additional Math Symbols - Updated N2336; Freytag; 2001-04-03

7.7.1 Document N2336 – Additional Mathematical Symbols

Dr. Asmus Freytag presented document N2336 as an individual expert and on behalf of co-authors. Document N2336 is proposing additional Mathematical Symbols to complete the set that is being added to Part 1 and Part 2. The set of Mathematical Symbols is somewhat open ended to be able to complete in one shot. Some characters were inadvertently dropped from the previous exercise. The UTC has reviewed, but not accepted the previous version of the proposal in document N2318, and they have not seen the new document N2336.

a. Long Arrows on page 16 are required to complete the set of arrows for MathML to complete the mapping to ASMA sets. MathML is moving away from using SGML entities and these missing characters are needed to do away with entities. Mr. Patrick Ion, the editor of Math ML has submitted a list to Unicode Consortium. This document includes that list.
b. On page 2 – of the charts two general punctuation characters are shown. The character at 2052 is the so called commercial minus – used in continental European publications, it is also used in other contexts – to designate an anonymous sender in email – i.e. absence of something as well as a minus. It is outside the realm of higher level mathematics – like the generic plus/minus. It has punctuation use and is also a minus sign.
c. Invisible comma (invisible separator) – explanatory note is shown on page 2 of the document. To distinguish for example 2,n from 2n etc. When there is no invisible character it becomes ambiguous.
d. In a few cases, it is not the arrangement of black and white shapes that matters, but also their shapes. The shapes are used with semantic distinctions in the literature. These are input from

Ms. Barbara Beaton of American Mathematical Society with extensive experience in Math publications.

e. The Multiplication OnLine and OnLine Dot – there are already a number of dots in the standard. However, in Math these appear with not only distinct semantics but also distinct rendering. The dots are distinguished not only in the black space, but also on the white spacing around it. These are different from the Math Operator etc.

Discussion:

a. Dr. Kent Karlsson: There is some motivation for some of these dots you have mentioned due to different typographic properties. There is similar issues regarding some CJK Punctuation Marks that have been used with Math. These do have ambiguous typographic properties.
b. Dr. Asmus Freytag: As an expert, I consider the unification of the CJK punctuation marks with Math usage as troublesome. The rendering based on character properties rather than glyph matrix raises some concerns. These have been in place for a long time. However there was no enforcement of normalization before. The enforcement will create problems. Math group and Japan have requested their own version of the glyphs to be shown, which makes it impossible to show their unification. We can probably bring back these unified characters back to the attention of Unicode and CJK for reevaluation – to be disunified. The saving grace is that when one is in Math environment one may not be in CJK environment. The frequency of use in different contexts often gives the hint to make a choice of glyph. Unlike the brackets, in one way or the other the dots of different kinds are all used in Math. These do have explicit entities in Tex and LaTex, which today are the primary means of publishing online Math documents. By having one-to-one translation available, one would support migration from those legacy environments. Outside the legacy, one would encode these by Function. They are justified in the Math context. When you add some characters to some region in the code, the script properties for the block should also be kept in mind. The author has to mark up the intent in LaTex to distinguish the usage.
c. Mr. Christian Cooke: Long Arrows have to be distinguished for MathML compliance and must be included in 10646.
d. Dr. Asmus Freytag: This is a statement of higher priority for the Long Arrows.
e. Mr. Michael Everson: I would like to see the 12 Long Arrows added to FPDAM1. The commercial Minus sign etc. to be added -- with the exception of the TWO DOTS, and Geometric Shapes for which I would like to see more evidence and discussion. The big squares could belong in some miscellaneous symbols block. I can accept the others.
f. Dr. Asmus Freytag: You are giving me feedback – to split this contribution into two – one which has sufficient evidence and other needing more study / information. I would like to receive additional comments from reviewers. We could take the set of Long Arrows and include them in FPDAM 1 – to indicate to the MathML community that we are supportive of their requirements. We may be able to suggest additions at a later stage – indicating to the Math community that we are taking care of their requirements.
g. Dr. Kent Karlsson: Why is the Fxxx range used in this document?
h. Dr. Asmus Freytag: Fxxx range is really in the PU area. If we decide to accept these, we can identify correct locations.
i. Dr. Joe Bekker: GLEICH STARK -- is that an English Name?
j. Dr. Asmus Freytag: That is what the mathematicians call it.
k. Mr. Michael Everson: Suggest an ad hoc to consider the set, and make recommendations to include now and where etc.
l. Dr. Ken Whistler: There seems to be agreement regarding Long Arrows. UTC has not come to consensus on accepting these. There was no opposition to the Long Arrows from the MathML set. We can accept the Long Arrows and we can discuss the rest of them in the ad hoc.
m. Mr. Michel Suignard: The normalization of the wide and narrow brackets etc. has implications for Asian implementations. If we normalize the brackets at 2329 and 232A they get eliminated in favour of the brackets in 3000 range. Typographical applications in turn will loose the width aspect. The result is such that the CJK symbols during the normalization process causes problems. There are symbols on page 8, which have similar problems.
n. Dr. Ken Whistler: Normalization related discussion should be a separate agenda item.
o. Mr. Mike Ksar: We can resolve to include the Long Arrows.

p. Dr. Umamaheswaran: One should clarify that Normalization is really a UTC tech issue. The impact of unification should be studied and a recommendation should be made by the Math ad hoc.
q. Ms. Lisa Moore: Going back to the discussion on Canonical Equivalence we may be able to consider an Amnesty program to fix Normalization related problems. We have a number of countries that have requested combined characters etc., which are due to wrong normalization etc. Not sure if UTC may look at it again.

7.7.1.1 Math ad hoc report:

Messrs. Takayuki Sato, Hideki Hiura, Kent Karlsson, Ken Whistler, Asmus Freytag, Michel Suignard, Tatsuo Kobayashi, Kyongsok Kim, Shun Ishizaki, Michael Everson, and Christian Cooke discussed the set of Mathematical symbols and the unification with CJK symbols etc. and produced document N2344 as the ad hoc report, which was presented by Dr. Asmus Freytag. Document N2356 (updated N2336) was made available for the discussion.

Documents N2343, N2344, N2356 were referenced. The ad hoc addressed the three topics -- CJK and Math Bracket Unification, Progressing Math Symbols, and Roadmap Adjustments.

a. Unification of Brackets: The experts were divided – unify; opposed; further study. Document N2345 will layout the issue. There was no consensus at this point in time.
b. Progression of document N2336: Document N2343 containing Ireland's request / support for Long Arrows was also considered by the ad hoc. Some subsets are to be reviewed -- primarily the geometrical shapes. These are encoded in size relation and we need to understand better. The two on line dots are too similar to existing dots. Square with large dot – these were postponed for further study. Also regarding the "Parallel" characters some questions need to be answered. The experts in the ad hoc came with three alternatives – add only the long arrows, fill with non-controversial characters in holes, or add all non-controversial ones. The consensus was to add the non-controversial ones only. A new contribution document N2356 details alternative 3 under recommendation 2 of the ad hoc.
c. Document N2316 – roadmap document for BMP – was also reviewed. The changes will free up Row 2B for additional symbols. Last three columns of row 27 should be used for recommendations in document N2356.

Action item: Mr. Michael Everson to update the BMP roadmap document N2316 reflecting the above change.

7.7.2 Document N2356 – Updated N2336 on Additional Math Symbols

Discussion: Dr. Asmus Freytag identified the following changes.

a. Move character in 21A4 to 21F4 on page 6 – right arrow with small circle
b. Page 12 is a misprint.
c. Existing 25FF is being proposed to moved to 27D0.
d. New Lower Right Triangle is proposed for 25FF.
e. There are three other similar triangles already in column 2FF. Page 13 shows the correct arrangement. Page 12 has some errors. Page 13 differs from document N2336. Rearranged characters inside the block to make room for future additions of similar characters.
f. A new set Supplemental Arrows-A has been added. Page 14 set will show these.
g. Existing supplemental arrows has to be renamed to Supplementary Arrows-B.
h. Supplemental Math Operators on page 19.
i. Moved some characters again - 2AE6 and 27D0 were swapped.
j. 2AFD was reviewed after the ad hoc meeting. 2AFD – original annotation was not correct; it had a different purpose, though not in favour of using the character. It is on the list of a VARIATION SELECTOR. We will add it as a separate character.
k. Row 29 is Miscellaneous Math Symbols B.
l. Col. 27B is Miscellaneous Math Symbols A.

Disposition: Accept the 10 Long Arrows, chart page 16 -- glyphs as shown from F576 through F57F (in document N2336). Ad hoc will confirm 2B00 through 2B0A. Include in FPDAM1. See also document N2343. Math Ad Hoc group accepted one more arrow. Accept additional math characters from

document N2356. Document N2341 – will contain the final code charts, reflecting the contents of document N2356 and changes agreed to it in the above discussion
See relevant resolution M40.5-item b (at the end of section 7.15 on page 36).

Action item: Dr. Asmus Freytag will provide a summary of Changes to current PDAM charts. Also, a final summary of characters, names etc. in document N2356.

7.7.3 Document N2345 on CJK Punctuation and similar looking Math Fences symbols

Dr. Kent Karlsson: Some of the characters are already unified. The Parentheses, Square brackets and Curly Braces are unified. The Angle Bracket – disunified but broken due to canonical mapping in Unicode. The disunification is UNDONE by the canonical mapping. The double angle brackets, double square brackets etc. are also used in Math contexts. Double parentheses, for example. The CJK case has white space on the outside; the Math usage does not have the white space. Black versions of Double brackets are also used in CJK not just Math. A whole range of other Math brackets that are NOT in CJK but are only in Math.

The above causes a number of problems. The extra white space can be removed by looking at the character following the fence characters. The math context and CJK contexts have to deal with these differently. Also, the Math sizing up etc. has to be done (large formula) – this is not done for CJK. Not only the white space, the actual glyph themselves have to differ in the two contexts. Sometimes it is not possible to distinguish between CJK and Math usage without markup.

Unification of CJK fences with Math is therefore not desirable for the various reasons described in the document. The proposal is to add 10 characters to the Math symbols and two to the CJK block.
Discussion:

a. Dr. Asmus Freytag: This is a very good summary of what we discussed. One of the criterion used for reducing misidentification of characters is that the character usage and usage pattern. Tex markup and interaction of the plain text characters is somewhat complex.
b. Mr. Michel Suignard: It will be useful to have separate characters to facilitate East Asian typography. On page 1 it says they are already disunified. It should say that they are IN PRACTICE DISUNIFIED.
c. Dr. Ken Whistler: The UTC and US are both on record for disunifying these characters. Regardless, on disunifying the Tortoise Shell brackets we have no verification from the Math community that these are used in Math. I also have problems with proposed names on page 3. These could cause further confusion - Brace versus Bracket, Double versus White etc. The name choice should be based on disunification between Math and CJK and not convey some other criteria. The obvious candidates would be Half-width Full-width etc. but they do not tie in with existing conventions. It is tied in with our desire to change the widths from neutral to half and full.
d. Mr. Michel Suignard: We could add MATH to these to convey that these are doublewide.
e. Dr. Ken Whistler: If we say that CJK rules dominate and when we come back with other usage we have to raise the problem again. If one mathematician starts using one of these characters for Math we may have to come back again to disunify that.
f. Dr. Asmus Freytag: The Math experts may come back later. The reverse problem is true for CJK stuff also. The quote marks, the angle brackets and fences, for example, are impacted.
g. Mr. Mike Ksar: The Tortoise Shell etc. are questionable - do we want to add them? From the proposal – which ones should be accepted?
h. Dr. Ken Whistler: Personally the Tortoise Shells etc. should be put on hold. Others we may have to change names.
i. Mr. Michael Everson: Since there is no rush from MathML group at this stage, we may be able to leave these for further study.
j. Mr. Michel Suignard: The issue is normalization. From vendors' point of view, the normalization breaks the East Asian Typography. The proposal rectifies the normalization breakage. The LEFT and RIGHT ANGLE BRACEs are the ones that will help these.
k. Dr. Kent Karlsson: Not only MathML, some other specifications involving these characters are also affected. From my perspective six of these should go into PDAM-1.

l. Dr. Ken Whistler: The ad hoc has come up with more forceful restatement of the earlier arguments for not equating these canonically. The Canonical Equivalence is about 10 years old. The issue that came up was the rendering rules for CJK are different from the European typography used for Math. Are we allowing layout efficiency considerations to drive the encoding of characters – when these are the same characters - with the exception of BRA and KET? Implementations had gone ahead about CJK block of characters and fixed the layout rules. The argument in UTC and US has been in favour of keeping the characters as abstract characters and not based on layout rules.
m. Dr. Asmus Freytag: Other processes that we run into are – sorting, searching etc. Do we disambiguate between these for those processes? For example, in Math Context – neither for sorting or searching we need to distinguish between CJK and non-CJK versions. It may not be significant. Usage of Math as a separate script versus Use of CJK contexts is probably normal.
n. Mr. Mike Ksar: How urgent is this? What happens if they do not go into the next PDAM? The only alternative is to come up with some fancy software or break the canonical equivalence. WG2 has distinguished these characters showing different glyphs - wide glyphs are used in the CJK block. The normal form would be narrow form.
o. Dr Asmus Freytag: Even though we had the two glyphs shown, these have been in practice unified; treated as essentially the same character whether it is from the CJK block / others.
p. Mr. Mike Ksar: We could take a selection of these characters and include these in a resolution to add to the FPDAM. The UTC and US still have opportunity to vote against it.
q. Dr. Umamaheswaran: We have two options. i. Accept some of these characters provisionally, pending feedback from NBs, and for inclusion in the FDAM stage to the standard. Specific action item on NBs will be to review and feedback objection to WG2, or, ii. Include a selection of these characters for inclusion in the FPDAM-1 and get NBs to ballot on that.
r. Dr. Ken Whistler: Since the UTC and US are officially on record, we cannot accept any resolution against the recorded items.

Disposition: Referencing document N2345R, page 3 - First Six and the last two – in the Math block: Left and Right DOUBLE SQUARE BRACKET; Left and Right ANGLE BRACE; Left and Right DOUBLE ANGLE BRACE; and in the CJK block: DOUBLE Left and Right PAREHTESIS, were provisionally accepted with intent of including these prior to FDAM at the next meeting.

Relevant Resolution:

M40.7 (Disunified Math Symbols): **US Negative**

WG 2 provisionally accepts to add 6 new math symbols (2B00 to 2B05), rename two math symbols (at 2985, 2986 currently in FPDAM-1), add two characters (at 33DE, 33DF in the CJK block), per recommendation of the Math ad hoc group in document N2345R, with the intent of including these in the standard in the FDAM-1 to 10646-1. This provisional acceptance is to permit member bodies and liaison organizations to review and comment by the next meeting of WG 2 in October 2001.

7.8 Proposal to complete the Dingbats block in 10646

Input document:

N2321 **Proposal to complete the Dingbats block in Unicode/ISO-IEC 10646; Sairus Patel <sppatel@adobe.com>; 2001-01-31**

Dr. Ken Whistler presented the document N2321, which contains a proposal from an expert from Adobe. It essentially completes the set of dingbats in the standard. The proposed characters are missing from the set currently in the standard. Document N2321 has the proposal summary form and 14 new characters at code positions 2768 through 2775. Page 5 shows all the symbols in Postscript Zapf Dingbats. Row 7 shows the proposed characters. The proposed characters are in a gap within the Zapf Dingbats. Now new block is needed. They were not originally available in Postscript symbol fonts. They were present in the font but when Adobe and Apple tried to provide CMAPs through Unicode, then they could only do it via PUA.

Discussion:

Mr. Michael Everson: Ireland agrees that this particular set due to its usage should be accepted – we have no problem with the proposed character positions.

Disposition: Accept 14 new Zapf Dingbat characters at positions 2768 through 2775; with proposed names on page 4, and glyphs as shown on page 5 of document N2321. Include in FPDAM-1.

See relevant resolution M40.5-item c (at the end of under section 7.15 on page 36).

7.9 Proposal to add "Arabic Tail Fragment"

Input document:
N2322 Proposal to add "Arabic Tail Fragment" character; IBM Egypt and the Unicode Consortium; 2001-02-05

Document N2322 contains a proposal to add Arabic Trail Fragment character for backward compatible mapping to existing implementation, not for the reason of adding yet another presentation character. It was missed during the early discussion of including this character in the initial standard. As shown in the document, characters in CP 1046 at xF6 and in CP864 at x9F, are fragments of characters. They exist in databases. These are required for interoperability with existing databases.

Discussion:

a. Mr. Michael Everson: We are not going to object to adding this character to the standard. My concern is that the Uighur characters may come back to us despite our early resolution.
b. Dr. Joe Bekker: These compatibility characters existed even before the gating of existing standards as a criterion for the first edition.
c. Mr. Mike Ksar: This character is of a different kind. The Uighur characters were demonstrated in Beijing to be true presentation forms and how that problem can be solved. WG2 position continues to be – if a character is a presentation form of an existing character we will not add to the standard – whether it is Arabic or not. A character that cannot be created by existing characters will be considered. This character was missed early on. They are discovering that it causes problem in the interoperability and that is why it is needed. There are previous legacy implementations by other companies also -- they do not use IBM code pages – they depend on the proper shaping algorithms etc. and by scanning the data etc. they did not need a separate character. Not every implementation does this.
d. Dr. Kent Karlsson: How come IBM has not discovered this problem so far? Will we get similar requests from Indic implementations etc.?
e. Dr. Ken Whistler: One could contextually analyze the data and be able to create the fractions. It is a matter of rationalizing the mapping tables between the existing code pages and the standard. The table has to be complete for individual components as well as compositions.
f. Mr. Mike Ksar: In IBM code pages it is a character – especially to go to and from Unicode.
g. Dr. Asmus Freytag: This character exists in code positions of windows code pages. From Unicode consortium point of view, our committee has evaluated it, and the members have convinced us. We have concluded to include this character in Unicode.

Disposition: Accept ARABIC TAIL FRAGMENT, at position FE73, with glyph shown on page 5 in document N2322, in the compatibility character block – Arabic Presentation Form B. Include in FPDAM-1.

See relevant resolution M40.5-item d (at the end of under section 7.15 on page 36).

Action item: Dr Asmus Freytag will work with providers of existing Font to add the tail character.

7.10 Korean ad hoc meeting report

Input document:
N2331 Korean ad hoc report meeting in China; Korean ad hoc; 2001-02-24

Mr. Mike Ksar: Document N2331 contains the report of Korean script ad hoc meeting that was held during International Conference on Computer Processing for Korean Language, February 21—24, 2001, in Yanji, China. Based on the discussion I had with experts from DPR of Korea and Republic of Korea, I would like to explain this document. The document states that a meeting was held in China on Korean script. Participants from DPRK and ROK discussed the results WG2 meeting in Greece. The document says that there is an Agreement. However, it turns out to be discussion points only. We have to treat document N2331 as a status report from the ad hoc. The “WE” under item 1 (3) was the participants. However, the responsibility re: 10646 rests with WG2. The ad hoc group established by WG2 on Korean can discuss various aspects of Korean script – however, they cannot discuss any changes to names of already encoded characters – since WG2 cannot take any action item on it. Also, they cannot discuss any re-ordering of the Korean characters within 10646. We had pointed these out to the ad hoc in our previous meetings, including the last one M39 in Greece. The ad hoc can discuss any additions (of missing characters), annotations to characters etc. and recommend to WG2 on items that WG2 can act

on. I will not entertain any submissions / reports which asks for changes in names or reordering. I would like to have one person responsible for leading the ad hoc group on the Korean script. I nominate Professor Kyongsok Kim as that person. Ad hoc reports should be from the chair of the ad hoc group.

Discussion:

a. Mr. Takayuki Sato: A point of clarification – is this the ad hoc on Korean script that we set up in our last meeting in Greece?
b. Mr. Mike Ksar: Yes.
c. Mr. Kim Yong Song: We had the conference in China that we had to do something with the Korean script, involving people from DPRK, ROC and parts of China. We discussed the various details about the problems. The document N2331 is a summary of what was discussed at the conference. The Korean ad hoc group reviewed all the discussions at that meeting and we forwarded the results to WG2. We respect all the WG2 resolutions from earlier meetings regarding the Korean script. I would like to let you know the actual situation. The aspirations of the Korean speaking population from all the countries – is that the various issues have to be resolved as documented in the document N2231.
d. Mr. Kim Yu Jong: In Northern China, Japan, DPRK etc. use the names of characters, ordering etc. which are different from what is in 10646 that follows the ROK method. We have to solve this problem. In future, please discuss this problem.
e. Mr. Mike Ksar: The ad hoc can continue to meet and discuss various aspects of Korean script. However, I would like emphasize that reordering of characters and renaming of characters cannot be brought back to WG2. As it was pointed out in the earlier meetings, ordering is to be taken up with ISO/IEC14651 – under SC22/ WG20 – the convener Mr. Arnold Winkler is here if you want to discuss how to proceed there. I want to get a summary of discussions that are relevant to WG2 in ad hoc report to WG2 – independent of whatever you discuss in the conferences on the Korean script. We will reiterate the principles WG2 has adopted in our earlier meetings in yet another resolution from this meeting. We will still accept proposals for additional characters etc. Positions of characters that are already assigned cannot change. Names also cannot change. Another committee does sorting.
f. Dr. Asmus Freytag: It may have been said before, but I would like to point out -- as to the character names, there is another avenue that exists. You can prepare translation of the standard in your own language; the translated names need not be the same as the names in the standard. It will entirely be equivalent to what Canada and France did for the French version of 10646. Such an action is entirely within DPRK's control. For the worldwide community, the names are not so important, and once assigned it is adequate for their purposes.
g. Mr. Mike Ksar: There are several countries translating the standard. Japan, for example, is ready to publish. The names they have chosen to use the same character names as in 10646. Canada and France have used the French names in the French edition of 10646. You can take a similar approach.
h. Dr. Kent Karlsson: Sweden has some work going on translating a subset of the standard for Swedish users. Denmark is also doing similar translation. Document N2249R has given DPRK some input on how to order the Korean script in a DPRK standard.
i. Mr. Takayuki Sato: The JIS – Japanese version – looks at the names as a meaningless sequence of characters (long identifier). It is used to just map the character positions between other standards and JIS version of 10646. We do not attach any meanings to the names of characters.
j. Mr. Kim Yu Jong: If we change the name of Korean characters in DPRK will 10646 change the names in the future?
k. Mr. Mike Ksar: Not in the English version.
l. Mr. Vladas Tumasonis: The national standards are invisible.
m. Dr. Asmus Freytag: Interoperability of data is the basis on which we are developing international standards. It is not necessary for example to a US user the Scandinavian names etc. as long as the technical specs match. The character names are unique, fixed and often arbitrary strings of characters in the English version. Initially we take care to make them somewhat meaningful. Once they are fixed they cannot be changed. The interoperability is by exchanging the assigned code points from the standard, but not by exchanging the names. Translation of the character names using terminology that is more appropriate for the target language helps in the interoperability. All users (except the users of that Language version) need not access all

translated versions of the standard. The character names we put together – may be not the best names from Korean viewpoint. However, we had the same situation with French. We should not be having this discussion in yet another meeting.

n. Mr. Mike Ksar: Do not consider that the translation is a means by which you can rewrite 10646 – only some aspects of the standard qualify for translation. You cannot add or reorder characters from 10646 during translation. The translated versions have to be technically equivalent. The place to add new characters is within WG2 by the charter given to us by ISO. Translation is not to be treated as an open door to create potentially conflicting standards. I want to ensure that everyone understands this aspect of translation.

Disposition: WG2 reiterates M39 resolution of Korean – stressing no name changes (impact on users, also Japanese case); pointing to Swedish document regarding ordering as an aid, and no change in 10646 as far as ordering of existing characters is concerned. Korean ad hoc is setup to recommend any additions for consideration by WG2. Suggestion that Translation may be used as a way out for clarifying the use of names for individual national / language communities can be entertained by member bodies.
Action item: Ad hoc on principles and procedures to summarize the discussion regarding the English names and their translatability in other language versions and add to the Principles and Procedures document.

Relevant Resolution

M40.1 (Ad hoc report on Korean): **Unanimous**

With reference to the Korean ad hoc report in document N2331, WG 2

a. Advises the Korean ad hoc group to take note of and respect the following principles:
   i. once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters.
   ii. the arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard.
   iii. the character names chosen by WG 2 for the English version of the standard are unique, fixed and may be arbitrary; once a character name is assigned, it *cannot* be changed even if additional information is provided later. These name strings are used in implementations, for example to establish correspondences with characters in other standards.
   iv. any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation.
b. nominates Professor Kyongksok Kim and an expert from DPR of Korea (name to be provided later) as co-chairs of the Korean ad hoc group;
c. invites the Korean ad hoc group to review and refine the proposals from DPR of Korea according to the Korean ad hoc recommendations in document N2282 from meeting M39 in Athens;
d. invites the Korean ad hoc group to prepare and contribute towards developing a set of Data Tables containing the sources for the CJK ideographs in 10646-1 (similar to the other CJK source data tables in FDIS 10646-2) for consideration by the IRG;
e. recommends that the Korean ad hoc group direct items that are outside the scope of 10646, to other appropriate standards groups, for example ordering of Korean characters to SC 22/WG 20; and,
f. suggests to DPR of Korea that one avenue for addressing their concerns about names for Korean characters in 10646-1 (English version) is to prepare a Korean language version of 10646 standard using the most appropriate Korean names for the 10646 characters.

7.11 Questions on source of Lao script

Input document:
N2333 Questions on sources for Lao Script; Boualoykhong Chansavat - UNDP; 2001-03-23

There is a question from Laos - where the Laotian characters in the standard were received from.
Action item: Dr. Joe Bekker and Mr. Michael Everson will prepare a response. Send to the convener for responding to the question.

7.12 Limbu script

Input documents:
N2339 Limbu Script proposal – BMP; Everson; 2001-04-02

Dr. Ken Whistler: On the proposal on Limbu script we could come to a consensus fairly quickly. National bodies who have concerns about Limbu script should be prepared towards progressing Limbu towards an

amendment in October meeting. It is a new Script – hence possibly a new PDAM. This script proposal came out of Unicode Technical Report – UTR No. 3. Document N2339 contains information provided by an expert from France. There are some architectural questions as to the suitability of Virama model etc. Looks like one fewer column than what is in the Roadmap will be needed for Limbu script.
Action item: Mr. Michael Everson will update the proposal, for discussion in Singapore. Interested national bodies to review the proposal and comment to Mr. Michael Everson.

7.13 Two additional Georgian characters

Input document:
N2346 Proposal for add 2 new Georgian characters; Unicode; 2001-04-03

Ms. Lisa Moore introduced document N2346. Georgia had sent a request to the Unicode Technical Committee for three characters with evidence of use of these characters. Two of these were accepted and the third was considered to be a sequence - AINI and IRRATIONAL VOWEL. Glyphs are not yet available.
Discussion:

a. Mr. Michael Everson – was talking to Klaas Kippert (??), a Caucasian linguist expert. I would suggest change the IRRATIONAL VOWEL to SHRA / SHWA etc. ELIFI is probably a better name instead of AINI.
b. Ms. Lisa Moore: The UTC does not have strong feelings about these names.

Disposition: WG2 provisionally accepts at 10F7 Irrational Vowel and 10F8 Aini. The names are to be finalized. Glyphs will be shown in the revised document N2346.
See relevant resolution M40.5-item f (at the end of under section 7.15 on page 36).

7.14 Combining Grapheme Joiner

Input documents:
N 2236 Proposal for addition of COMBINING GRAPHEME JOINER; UTC - Mark Davis ;2000-08-10
N2317 On the use of Joiners in Ligation; Everson; 2001-01-19

There was an action item on US (Dr. Mark Davis) to get additional clarification on the proposal on Combining Grapheme Joiner. The action item was completed subsequently. There has been email discussion on the behaviour of the character and clarification about interaction with other characters etc.

A contribution summarizing the discussion has to be prepared. Additional information is needed for progressing in Unicode. However, for the purposes of inclusion in PDAM-1 it should be enough to have Glyph, Name and code position.
Discussion:

a. Dr. Asmus Freytag: The character has been accepted for inclusion in Unicode.
b. Mr. Michael Everson: We do not have yet a rule of interaction between other similar characters. We do have agreement that such a rule will be added to Unicode. I am satisfied that we can include this character – my concerns have been addressed.
c. Mr. Michel Suignard: Do we need another document?

Action Item: Ireland and US to prepare a document summarizing the email discussion on document N2317 and clarifying the behaviour / interactions. UTC has assigned a code position (see Unicode pipeline document on www.unicode.org site).
Disposition: WG2 accepts at 034F – COMBINING GRAPHEME JOINER – a dotted circle with a dashed box with CGJ inside it.
See relevant resolution M40.5-item g (at the end of under section 7.15 on page 36).

7.15 Two additional Arabic characters

Input document:
N2357 Proposal to add two Arabic characters; Unicode; 2001-04-04

Ms. Lisa Moore: Two Arabic Characters -- ARABIC DOTLESS BEH at 066E and ARABIC DOTLES QAF at 066F -- are proposed in document N2357. These characters look like existing characters with adornments on them, but without the dots etc. These are for use in scholarly work.
Disposition: WG2 accepts these for inclusion in FPDAM-1 to Part 1.
See relevant resolution M40.5-item e below.

Relevant Resolution

M40.5 (Additional characters for BMP): Unanimous

WG 2 accepts the following new characters:

a. 0220 in the BMP – LATIN CAPITAL LETTER N WITH LONG RIGHT LEG, with the proposed glyph in section 5c of document N2306R;
b. 74 new Math Symbols including 11 Long Arrows recommended for inclusion by the Math Ad hoc group, with glyphs, names and positions per document N2356, with 21A4 moved to 21F4, and changes to block names discussed during the meeting;
c. 14 additional Zapf Dingbat characters at positions 2768 through 2775, with the proposed names on page 4 and the proposed glyphs on page 5 of document N2321;
d. FE73 in the BMP, ARABIC TAIL FRAGMENT with the glyph proposed on page 5 of document N2322;
e. 066E ARABIC LETTER DOTLESS BEH and 066F ARABIC LETTER DOTLESS QAF, with glyphs shown in document N2357;
f. 10F7 GEORGIAN LETTER YN and 10F8 GEORGIAN LETTER ELIFI, with glyphs shown in document N2346R;
g. 034F – COMBINING GRAPHEME JOINER – with a glyph composed of a dotted circle with a dashed box with the letters CGJ inside it;
h. Per discussion in meeting 40 on disposition of comments to ballot responses to PDAM-1 from Ireland and the US:
   267A RECYCLING SYMBOL FOR GENERIC MATERIALS
   267B BLACK UNIVERSAL RECYCLING SYMBOL
   267C RECYCLED PAPER SYMBOL
   267D PARTIALLY-RECYCLED PAPER SYMBOL
   25FF LOWER RIGHT TRIANGLE
   in the BMP, with the glyphs as shown on page 3 of Irish comments in document N2328.

WG 2 further resolves to progress these characters as part of Amendment 1 to 10646-1: 2000, and instructs its editor to include these characters in the text of FPDAM-1 (per Relevant Resolution M40.4 above).

8 10646-2:

8.1 Further processing FDIS 10646-2

Input document:

N2309 **FDIS 10646-2; Suignard; 2000-12-04**
N2298 **CJK Unified Ideographs Extension B - PreDIS-R1 For ISO/IEC DIS 10646-2:2000; IRG; 2000-11-21**
N2334 **Notification of an error and a request for a correction regarding mapping information for a particular JIS X 0213 character in CJK UNIFIED IDEOGRAPHS EXTENSION-B; Japan; 2001-03-28 (Mapping error JIS X 0213 to 10646-2; Japan – Sato)**
N2337 **Ballot results of FDIS 10646-2 and comments; ITTF; 2001-04-02**
N2349 **Clarification on versions of CJK Unified Ideographs Extension B as well as Super CJK; IRG; 2001-04-02**

8.1.1 Disposition of comments accompanying the ballot responses

Mr. Michel Suignard: The FDIS passed the ballot. There were comments from Japan, Canada, and Mr. Bruce Paterson. No technical changes are permitted to FDIS.

Japanese comments:

a. Comment 2 – fixed 10464 to 10646.
b. Comments 3, 4 not accepted.
c. Comment 5 – accepted.
d. Comment 6 – Annex C and E (also from Mr. Bruce Paterson) - question about whether the electronic only version of part of the standard. The .txt files can be printed – but it is just a waste of paper.
   Mr. Mike Ksar: ITTF intends to make the standard available on CD and on their website. Paper copies will be made available on request.
   Mr. Michel Suignard: Are they going to print 2Megs of Text File? Can we put part of a standard only in electronic form – add foreword text to indicate that some material will be only available in machine-readable format. Annexes C and E – on a screen shows HyperLinks. However, on print it may not be obvious, editorial fixes to Hyperlinks will be needed. WG2 should give consideration for the Part 1 source references also.

e. Comment 7 – The PDF form of Code Tables should not have freedom of Font Selection. The PDF files have embedded outline fonts in the document and the readers used to read the PDF files should not be allowed to change the shapes. The issue was related to liability issue -- There is a disclaimer added into the PDF files by ITTF. This is a warning about licensing of fonts with Adobe reader etc.

Canadian comments:

Both comments were accepted. Will fix the note and will fix typo.

Mr. Bruce Paterson's comment was already discussed.

Mr. Michel Suignard: If there are any additional editorial changes detected please advise the editor. The IS will be dated 2001. All the CJK Extension B pages are dated 2001.

8.1.2 Document N2334 – proposed corrigendum from Japan

The character is 2-94-5 in JIS X 0213's notation or J4-7E25 in IRG/UCS's notation. It is currently mapped to U+00029FCE by a mistake, but should be mapped to U+00029FD7. Japan proposes an editorial corrigendum to fix the mistake before publication of 10640-2.

It arises from a correction to an error in JIS X0213. There are ramifications to implementation. This is a different mapping. JIS X0213 changed the shape of one of the characters. JIS X0213 does not contain mapping information to 10646-2. Since it is a mapping change, it has to be considered as technical versus editorial corrigendum to 10646.

Options:

a. Deprecate what we have now.
b. Declare that the new character arises out of a different mapping.

Discussion:

a. Dr. Ken Whistler: Looks like these characters are close enough – it is not clear why they were not unified by JIS. We cannot fix it now. How many of these are lurking around? How can we prevent in the future? We should recommend that JIS X0213 changes to accommodate.
b. Dr. Umamaheswaran: Would changing the glyph in Part 2 – be an alternative?
c. Dr. Ken Whistler: No. The characters are almost indistinguishable and it is easy to make this kind of mistake.
d. Mr. Takayuki Sato: Looks like we are saying that these are really glyph variants.
e. Mr. Mike Ksar - We will have to reject this Corrigendum request. JIS X0213 has changed the shape in almost non-distinguishable way. We recommend to Japan that these characters be treated as glyph variants and not change the current Part 2 source mapping.

Disposition: WG2 rejects the corrigendum proposed in document N2334.

8.1.3 Publication plan

8.1.3.1 IRG charts and fonts

Mr. Zhang Zhoucai: Extension B - Refer to document N2349 for the IRG plans. Document IRG 785 – is the Pre-IS version. IRG editors have not reviewed it. We have frozen the shapes, the code positions and source tables. However, there are some editorial changes being made to styles etc. We need to know the schedule. The project editor has the documents. IRG meeting in Hong Kong in June 2001 is the target for completing the review of IS version. The IRG found that the original estimate for the proof reading of the Extension B was too low.

Discussion:

a. Mr. Takayuki Sato: The quality of fonts is good. However, the accuracy of the shapes is under review.
b. Mr. Mike Ksar: The SC2 schedule for IS submission to ITTF is December 2001.
c. Dr. Asmus Freytag: The Unicode Consortium is in a different situation. Version 3.1 has been published (last Friday). The code charts that we published are provisional. However, we do not plan to delay till December 2001 to have the final charts. We may issue Unicode 3.1.1 when we finalize the Extension B charts and the UniHan database. Mr. John Jenkins, the keeper of the

UniHan database could not be here at the meeting (he said hello to everyone attending the meeting). Would like to know when the Super CJK database will be available to enable automatic verification of the UniHan data.

A message was received from the font vendor – they would like to send BitMap fonts only, and NOT to allow ONLINE publication using these fonts. If we do not get the permission from the font vendor, we will have problems. We have a draft set of charts with fonts from a different source with lots of holes in it. It helps to some extent provided vendors have their own source for fonts. The same source is providing the information to IRG also. The PDF files will protect the fonts. The same issue applies to publication of Part 2 also.

Unicode 3.2 will include Amendment 1 to Part 1 towards the end of the year.

d. Mr. Michel Suignard: The key thing that we want from IRG is that the mapping information is stable. In the UniHan database there should not be any changes to the database. Three different vendors helped produce previous FDIS CJK Ext B charts. Now we have a single vendor – which will help.
e. Mr. Zhang Zhoucai: If Unicode has gone ahead and published last Friday, there will be differences between 10646 and Unicode. I would like Unicode to be aware of that. Fonts can be frozen for Extension B publication. We will take glyphs 128x128 bitmaps and create the pdf files. We do not have to take their fonts.
f. Dr. Asmus Freytag: The tools we have for the rest of the Part 2 can only use the TrueType versions of the fonts, and not the bitmaps. We can try and convince the vendor that these will be used for pdf files, which will have the necessary protection against the font-licensing etc. Tools we use for Unicode standard DO NOT use the bit-mapped fonts. We need to touch bases off line towards getting the right deliverables from the vendor. The previous agreement was that we could use these fonts for online publication.
g. Mr. Zhang Zhoucai: The vendor is looking for an agreement. There are also some technical issues. I have a concern of the mapping also. The mapping is part of the standard. Japan has requested for a single change. The mappings do not have any DPRK mappings. There was an action item on DPRK to get input to IRG meeting in December. However, this was not completed. So DPRK mapping information is not in current IS of Part 2.
h. Mr. Michel Suignard: All the DPRK mappings were removed from current Part 2. Some changes were made to ROK mappings – from K to K4.
i. Mr. Takayuki Sato: If we say that pre-IS version is under review in member bodies. The target is to finalize in Hong Kong meeting. If there are only editorial changes these can be fixed by the project editor. If there are no major issues then there is no problem. Hopefully we can make the target date.
j. Mr. Mike Ksar: What I am hearing that you have a high degree of confidence that you will be able to finalize the document in the Hong Kong meeting. It will take about 10 working days to produce the final version after that. It is important that we maintain the schedule and synchronization between 10646 and Unicode. Assuming necessary agreements are sorted out, IRG will provide FONTS for Part 2 and PDAM1 publications on a CD-ROM by 15 July 2001.
k. Dr. Asmus Freytag: The font vendor will likely come to Seattle and to Hong Kong. It will help if Mr. Zhang Zhoucai could send an email explaining what WG2 and UTC are setting out to do, to ease the negotiations etc.
l. Mr. Zhang Zhoucai: The vendor is currently in San Jose on vacation with her family. I can help in setting up the contacts and get the discussion going. December 3 –7, 2001 are the dates for the following IRG meeting in Japan.

8.1.3.2 Non-IRG charts and fonts

Discussion:

a. Mr. Mike Ksar: Are there any issues with Non IRG?
b. Dr. Asmus Freytag: The dashed boxes are not in the right font – Table 6. The fix is to get the correct font.

Relevant Resolution

M40.8 (Defect Report – JIS X0213):	**Japan Abstains**
WG 2 rejects the request for a future technical corrigendum proposed in document N2334 from Japan, on the basis that the problem reported is not a defect in (FDIS) 10646-2.	

Disposition: Progress FDIS to IS with agreed upon editorial corrections. The target publication date is unchanged.

Relevant Resolution

M40.3 (FDIS 10646-2):	**Unanimous**
WG 2 notes the ballot results and comments in document N2337 to FDIS 10646-2 (N2309) and instructs its editor with assistance from the contributing editors, to prepare the .PDF files containing the final text of IS 10646-2, incorporating editorial changes discussed during the meeting, and forward it in a form suitable for ITTF publication on a CDROM, to meet the original publication target date of December 2001.	

8.2 Legacy cuneiform font implementations

Input document:
N2297 Legacy cuneiform font implementations and the ICE project; Everson; 2000-11-20

Discussion:

a. Mr. Michael Everson: Document N2297 is for WG2 information. It takes an existing coded character set and analyzes it towards encoding cuneiform scripts. This is a proposal towards being ready when ICE (Initiative for Cuneiform Encoding) project is ready to map to them. Page 13 and page 14 – have some erasure characters. It is not a proposal yet. It is a description of an existing character set.
b. Dr. Ken Whistler: Sumero-Akkadian will come up with encoding sometime in the future. Document N2297 is a background document.

Action item: National bodies to take note and feed back any comments to the author Mr. Michael Everson.

8.3 Super CJK, Version 11.1

Input document:
N2299 SuperCJK, Version 11.1 with Kangxi & HYD Data; IRG; 2000-11-21

There was no discussion.

8.4 Roadmap - early Semitic scripts

Input document:
N2311 Roadmapping early Semitic scripts; Everson; 2001-01-05

Mr. Michael Everson: Document N2311 contains some feedback on roadmap documents stating that Aramaic / Semitic scripts should be unified. Mr. Rick McGowan and I discussed this and we have explained some of the unification that is acceptable. New roadmap in document N2314 for Plane 1 reflects these. We should update document N2314 after this meeting and we can send the next versions of the roadmaps to SC2.

8.5 Roadmap - Plane 1

Input document:
N2314 Roadmap - Plane 1; replaces N2214; Everson; 2001-01-10

Mr. Michael Everson: With respect to LINEAR B we will be reorganizing the first three rows. Aegian script will move down. Linear A script will find a place. These will be reflected in update of document N2314.
Action item: Mr. Michael Everson to update the roadmap for Plane 1.

8.6 Ugaritic

Input document:
N2338 Ugaritic Script proposal – Plane 1; Everson; 2001-04-02

Mr. Michael Everson: Document N2338 is an update to an earlier proposal in document N1640 – from 1997. The names have been corrected. Ugaritic scholars have agreed to the repertoire and the order of

the cuneiforms. However, there is still some discussion on the names. My request is to provisionally accept the glyphs, positions, with names to be finalized.

Discussion:

a. Mr. Mike Ksar: Since there has been a large gap from the previous contribution and the updated one. I would suggest that we get NBs to review and feed back.
b. Dr. Asmus Freytag: What is the best method for us to get the best review on rare scripts, and keep the processing straightforward? We may end up getting things accepted but not process them further. What is the status of these?
c. Dr. Ken Whistler: The relevant community in this case has some urgency expectations. They are assuming they will be in Unicode 4.0. Mr. Rick McGowan and myself from UTC have been involved. What we would like to see is that Ugaritic be put into a bucket, which may be part of the next amendment to Part 2. There is considerable consensus from the relevant scholars.
d. Dr. Asmus Freytag: In terms of book keeping it is nice to have these in a Bucket after finalizing the content.

Action item: National bodies to review and provide feedback to the contributor. Contributors are invited to revise the proposal resolving any outstanding issues on names etc. for consideration towards acceptance at the Singapore meeting.

8.7 Aegean script

Input document:
N2327 **Revised proposal for encoding Aegian script in the UCS; Deborah Anderson and Michael Everson – expert contribution; 2001-04-03 Aegean script**

Mr. Michael Everson: Document N2327 is an update to an earlier document N1575 (1997-06) from Unicode on Aegean scripts – also known as Linear B. Five specialists in this area have reviewed the earlier proposal and they gave feedback on them. Ms. Deborah Anderson is one of them. The experts have reviewed these, and we were able to remove duplicates. The proposal is being revised – Cypriot is written Left to Right and others are Right to Left?? The character names have been agreed to. The request is that catalog numbers for entities be added in addition to meanings conveyed in names selected. The glyphs are stable.

Action Item: Contributors (Ms. Deborah Anderson, Mr. Michael Everson) are invited to revise the proposal resolving any outstanding issues on names etc. for consideration towards acceptance at the Singapore meeting. NBs to review and provide feedback to the contributor.

9 Architecture issues

9.1 Information necessary for TR 15285 amendments

Input document:
N2324 **Information necessary for TR 15285 amendments drafting; T. K. Sato, expert contribution; 2001-02-12**
Output document:
N2359 **Ad hoc discussions on amending the character glyph model (TR 15285-1998); Hart; 2001-04-04**

Mr. Edwin Hart: There was an ad hoc discussion on TR15285. Messrs. Edwin Hart, Takayuki K. Sato, Ken Whistler, and Christian Cooke participated. The ad hoc report will be made available and it will contain possible changes to the TR and some rationale for the changes. Dr. Ken Whistler had several ideas yesterday. Coordination with SC35 may be needed since some aspects touch upon Keyboard input etc. As the editor, I am also planning to draft a working document for TR revision or equivalent for consideration at the Singapore meeting.

Action item: US (Mr. Edwin Hart) and Japan (Mr. Takayuki Sato) are invited to prepare the working document for revising the TR15285 based on the ad hoc report in document N2359. NBs to review and feedback on document N2359.

9.2 Principles and Procedures

Input document:
N2352 **Principles and Procedures for Allocation of New Characters and Scripts and handling of Defect Reports on Character names; Ad hoc – V.S. Umamaheswaran; 2001-04-02.**

Mr. Mike Ksar: Document N2352 edited by Dr. V.S. Umamaheswaran reflects the inclusion of the results of all the action items accumulated since document N2002. There are some other items that may still to be added to it.

Discussion:

a. Mr. Michel Suignard: Two points: -
   - Compatibility characters – when submissions include compatibility characters, we need mapping to the unified characters also to be indicated in the submission;
   - We are moving towards more electronic forms of information to be included in the standard. When there are significant amount of information such as names of characters, properties described in the standard etc. these should be made available in electronic form.

b. Dr. Asmus Freytag:
   - On page 20 and page 21 we have a form and some guidelines. Either the WG2 administrative section should be moved up or removed.
     Disposition: Remove it, since it is not being used by WG2.
   - Question 4 in the form – may be this question should better filled in by WG2.

c. Dr. Ken Whistler: Question 8 – contains character equivalence to a presentation form of character or character sequence. Would like to add another question – can any of the proposed characters be decomposed into a sequence?

d. Mr. Vladas Tumasonis: What does it mean, "better represented" as part of 1c. It should be explained. Add another wording for 1c. Ad hoc to come up with better wording.

e. Dr. Joe Bekker: Interchange d, e. Reorder and point to other sections for additional guidelines.

f. Mr. Michael Everson: Section F.2 – page 22. Change Etruscan to Old Italic.

g. Mr. Mike Ksar: In the interests of continuation of synchronization with Unicode – we have not asked submitters to get properties required for the Unicode standard. Do we need to add anything to gather some information from the proposers at this time?

h. Mr. Michael Everson: There has been vehement opposition to deal with Character Properties in our work. Great many proposals we are putting in we have included the properties.

i. Dr. Ken Whistler: One easy way out will be – since this committee does not have a fully worked out set of properties, a simple invitation to the proposers to provide additional information will work for now. A more detailed version can be prepared and included here. For now we just give a pointer to the kind of properties that can be included.

j. Dr. Asmus Freytag: Three points --
   - Part of the process – WG2 encodes things sometimes before all the information about characters are available for Unicode purposes. This sometimes leads to incomplete set of properties – some like glyphs required by WG2 and others needed for Unicode.
   - One of Mark Davis's attempts was to develop an online version of the form that can be filled in. Most questions will be answered by "see attached". We could improve the form to make "see attached" easier.
   - Section on the symbols – since the guidelines on symbols have been written events have taken over, the unavailability of fonts for the various symbols is a factor. Last bullet under H.7 - add in "the web font shifting is not a reliable means of getting at symbols". Undergoing rapid changes - H.7 bullet 3 - remove the footnote (replace – with Short-lived symbols)

k. Dr. Umamaheswaran:
   - Replace Annex D – pointers with a single document www.dkuug.dk/wg2/roadmap.html. Inside the roadmap.html document have the pointers to the latest WG2 documents. We will continue to maintain this document.
   - Similar mechanism will be made available for both the Principles and Procedures document and the Summary Form – for example, Principles.html and SummaryForm.html.
   - The Summary Form will be made available in .txt, .doc, .pdf, and .html forms.
   - The .html file pointers are to be added also to WG2 homepage.
   - During the course of the meeting several additional items were identified to be included in the revised document N2352. These will be included.

Disposition: Accept document N2352 with revisions to accommodate comments above (as well as elsewhere during this meeting). *See resolution M40.2 below.*

Action item: Dr. Umamaheswaran will prepare a new document N2352R for posting to the WG2 site.

Relevant Resolution

M40.2 (Principles and Procedures): Unanimous

With reference to document N2352, WG 2 accepts the revisions to the principles and procedures, modified with comments from meeting 40 (as documented in N2352R). WG 2 further resolves to make this document and the updated versions of the Proposal Summary Form and the Roadmap documents accessible on the WG 2 web site home page as public documents, using a stable URL (such as ../roadmaps.html).

10 Publication issues

There were no issues to discuss. *See related discussion under section 7.2 on page 26.*

11 IRG status and reports

11.1 IRG Resolutions

Input document:

N2358 IRG resolutions – December 2000 meeting; IRG; 2001-04-04

The next two IRG meetings are proposed for June 2001 in Hong Kong and for December 2001 in Japan. WG2 accepted these. See relevant resolution M40.9 under section 14.2 on page 45.

11.2 TCA Request to change source maps for two CJK ideographs

Input documents:

N2271 Propose to amend two source code changes in BMP CJK Unified Ideographs block; TCA; 2000-09-19

N2294 Feedback from Japan on N2271 – Proposal by TCA to amend two source code changes in BMP CJK Unified Ideographs block; Japan, T. K. Sato; 2000-10-27

Document N2271 is the original request from TCA to correct source identification of Taiwan characters, and document N2294 is the feedback from Japan.

Discussion:

a. Mr. Takayuki Sato: First paragraph says that there was a mistake in Unification in the T Column for 5B90. It was proposed to be in Extension B, but it is not in there now because of the open question “can we disunify these?”.
b. Dr. Umamaheswaran: The general problem that has been raised is how do we deal with errors in CJK Unification? Do we deprecate these characters? And recode these / reunify somewhere else. It will have impact on mapping tables etc.
c. Dr. Ken Whistler: Deprecation will probably have the worst impact on everyone and on all mappings. The suggested solution is to fix the character mappings. The request in document N2271 is to change the CNS mapping tables to rectify the error. We end up in having an unmapped character in CNS that has to go into Extension C. Item C in document N2271 is similar but affects more characters. In Athens WG2 meeting, the CNS Compatibility Extension was the place where TCA placed the CNS unmapped character. The correct way should have been to move to Extension C.
d. Mr. Zhang Zhoucai: We have to check the TCA input in the IRG. We have found more than these.
e. Mr. Takayuki Sato: There may be other similar characters that may be discovered by IRG. How do we process them? In the morning discussion re: Japan defect report we knew we made a mistake - it should have been unified. The TCA states there is an error in unification and reunification.
f. Mr. Michel Suignard: Part of the decisions for these should be based on implementations. At least in one implementation they do not exist. If there is no implementation impact we should be able to entertain a change. It is a LEGACY issue.
g. Dr. Ken Whistler: At the very least the mappings exist in several databases -- in IRG, in UniHan data files, in Unicode data files etc. It is more than just in Fonts. Knowing that CJK is too complicated to get everything correct, there will be cost whichever option we take:
   - We may freeze these and publish known errors but we cannot change them.
   - Systematically publish corrections to errors as and when we find these are necessary.

Action Item: Invite contributions towards establishing a policy to deal with Errors in unification of CJK. How to correct the TCA error reported?

12 Defect reports

There were no defect reports against the published standard 10646-1: 2000.

13 Liaison reports

13.1 Unicode Consortium

Dr. Asmus Freytag: Unicode 3.1 was published on line last Friday. See URL: www.unicode.org for more information. Unicode 3.1 is not 100 percent equivalent to a single document on the 10646 side. Two of the Greek Characters from FPDAM-1 were included. These two characters were included for internal consistency – internal cross mapping to new math alphanumeric characters. It includes and matches content of Part 2. The point releases are functionally similar to Amendments of ISO. The whole document is not reprinted. Unicode 3.1.1 release, which is a fix-up release, is also planned. There is need for the Unicode Consortium to come out with something sooner than ISO schedules due to implementation requirements. Unicode 4.0 is also being planned. The standard is more and more an online document. The organizational structure needed to deal with online publication issues and the CDROM way of dealing with the standard is different from all the other aspects e-publishing.

Discussion:

a. Dr. Umamaheswaran: Are there any more characters in the pipeline more than what we have heard so far. We still have time before end of the day to consider at this meeting.
b. Ms. Lisa Moore: There are two Arabic characters still in the Pipeline - ARABIC PEH and QAF. I would like to get the Proposal Summary Form etc. filled in before we process FPDAM-1 (see discussion under section 7.15 on page 36). Also, as a co-chair of the IUC conference, I would like to extend the invitation to the next IUC to be held 24 -- 28 April in Hong Kong. About 55 contributions are being presented. Keynote speaker is from Hong Kong Directorate of IT. The next IUC conference is in San Jose in September 2001. Starting in 2002 plan is to have three conferences. Spring 2002 conference in Europe is still open.
c. Mr. Mike Ksar: We may be able to have the spring 2002 WG2 meeting the week before or week after the IUC in Europe.
d. Dr. Kent Karlsson: ITS, Sweden, will be willing to sponsor the spring WG2 meeting.

13.2 IETF

Mr. Mike Ksar: We do not have anyone from IETF here. Their next meeting is in April – they are looking at i18n implications, referencing to 10646, the UTR referencing etc. I would distribute when relevant information is made available.

13.3 TC304

CEN TC304 - an unofficial verbal report was given by Dr. Umamaheswaran. CEN TC304 report is available from the convener.

13.4 W3C - Character Model

Input document:
N2319 Character Model for the World Wide Web 1.0 – last call; W3C-I18N; 2001-01-26

The document is prepared by W3C. It was out for public review.

Discussion:

a. Dr. Umamaheswaran: I have taken this document and informed the CAC JTC1 in Canada to take a look at the document as a basis for 10646 implementation considerations.
b. Mr. Michel Suignard: The base set of XML specifications still refer to 10646-1: 1993. It is not sufficient.
c. Dr. Ken Whistler: Anything that has 1993 date is a problem especially because of Amd. 5.
d. Mr. Michel Suignard: There are two registrations one for UTF-16-Level 3, which is open ended and also UTF-8 Level 3. These are the two we should recommend to XHTML and other IETF groups to use to point to the latest documents.

14 Other business

14.1 Web Site Review

14.2 Future Meetings

- Meeting 41 – October 2001 – Singapore – Joint with SC2 plenary

Mr. Mike Ksar: Our Singapore contacts are working on the arrangements for the next meeting. For those who want to get visas to go to Singapore please start making arrangements to get there as soon as possible. When the logistics about the meeting are available they will be posted to WG2 site.

- Meeting 42 – March/April 2002 – Ireland, Sweden, Norway

Ireland is having some difficulty hosting WG2 meeting. Lotus was contacted – they cannot provide a venue. Sweden is investigating hosting. Companies who are operating in Ireland are requested to contact Mr. Michael Everson to see if they can assist with the Hosting – providing a meeting avenue, providing copying facilities for a four-day meeting in Ireland. If no European host can be found, we will try to host it in USA again.

Preliminary feedback from Norway – Keld Simonsen will contact appropriate people and get back to Mike.

On Friday morning – Monica Stohl (ITS Sweden) has responded that Sweden can provide the meeting facilities etc. However, they will not able to host a social function. Any Host organization is requested to provide meeting facilities – copying facilities, meeting room, and connections to the network. There is neither expectation from WG2 nor any obligation on the host to provide any social functions etc. We will keep Swedish offer as a backup to Ireland.

- Meeting 43 – Fall 2002 – We have two hosts – Japan, Norway.

Action item: Mr. Mike Ksar to finalize the venues for future meetings.

Relevant Resolution

M40.9 (Future Meetings):	**Unanimous**
WG 2 meetings: Meeting 41 – October 15--19, 2001, Singapore (co-located with SC 2 plenary) Meeting 42 – March/April 2002 –Ireland (Sweden, Norway as backups) Meeting 43 – Fall 2002 (co-located with SC 2 plenary) Japan (Norway backup). IRG meetings: IRG 17 HKSAR, 2001-06-18/22 IRG 18 Japan, 2001-12-03/07	

15 Closing

Mr. Mike Ksar: The most important thing we did at this meeting was to develop the disposition of comments for PDAM-1 ballot. We also addressed progression of IS 10646-2, and the charts, the fonts and the code tables associated with its publication.

15.1 Approval of resolutions

Canada, China, Ireland, Japan, Lithuania, DPR of Korea, Republic of Korea, Sweden, the Unicode Consortium (Liaison), and the USA were represented when the following resolutions were adopted.

Draft Resolution M40.1 – on Korean script

Mr. Kim Yong Song: We are happy that all delegates were helpful to us. DPR of Korea is not very happy with item b in this resolution. We have two options either have a co-chair position or a third party chairperson. This is due to the peculiar situation that exists today on the Korean peninsula. It is not easy to communicate from DPR of Korea with ROK. The co-chair suggestion is also based on Korean script users in other countries.

We are living in the world of computerization. DPR of Korea is a P member of ISO. We believe that everything can be changed and nothing is impossible. We will continue to work with and cooperate with the other ISO P members to resolve our problems. A co-chair name will be provided later by DPR of Korea.

Mr. Mike Ksar: We have the offer of a co-chair from DPR of Korea. We could add a co-chair. The purpose of the chair is that we need a single focal point to communicate the ad hoc group's progress with WG2.

On FPDAM-1 resolution:

Dr. Asmus Freytag: 5055 words and 1024 new characters were added in FDAM-1. Column 2A0 of document N2341 is a misprint. A new document will be prepared.

Dr. Kent Karlsson: Sweden objects to item d – adding the Arabic Tail Fragment – in resolution M40.5. The encoding of the glyph fragment for this script invites glyph fragments for other scripts in the future.

15.2 Appreciation

Relevant Resolutions

M40.10 (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.	
M40.11 (Appreciation):	**By Acclamation**
WG 2 thanks its hosts the US member body, Microsoft Corporation and the Unicode Consortium for hosting the meeting, to Arnold Winkler of Unisys for providing the hardcopies of documents for the meeting, and Ms. Magda Danish for providing excellent secretarial and administrative support. WG 2 further thanks the US Member Body and the sponsors, for their kind hospitality and the excursion to the Monterey peninsula and nearby attractions.	

15.3 Adjournment

Meeting closed at 09:43h on Thursday, April 05, 2001.

16 Action Items

16.1 Action items from previous WG 2 meetings (numbers 25 to 36)

All action items recorded in the minutes of the following meetings have been either completed or have been dropped. Only outstanding and new action items are listed in the tables that follow.

a. meeting 25, 1994-04-18/22, Antalya, Turkey (document N1033)
b. meeting 26, 1994-10-10/14,San Francisco, CA, USA (document N1117)
c. meeting 27, 1995-04-03/07, Geneva, Switzerland (document N1203)
d. meeting 28, 1995-06-22/26, Helsinki, Finland (document N 1253)
e. meeting 29, 1995-11-06/10, Tokyo, Japan (document N1303)
f. meeting 30, 1996-04-22/26, Copenhagen, Denmark (document N1353)
g. meeting 31, 1996-08-12/16, Québec City, Canada (document N1453)
h. meeting 32, 1997-01-20/24, Singapore (document N1503)
i. meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document N1603)
j. meeting 34, 1998-03-16/20, Redmond, WA, USA (document N1703)
k. meeting 35, 1998-09-21/25, London, UK (document N1903), and,
l. meeting 36, 1999-03-09/15, Fukuoka, Japan (document N2003)

16.2 Outstanding action items from meeting 37, 1999-09-17/21, Copenhagen, Denmark

Item	Assigned to / action (Reference resolutions in document N2104, and minutes in document N2103, with the corrections to the minutes noted in section 3 of document N2203, for Meeting 37)	Status
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, M39 and M40 - in progress.	In progress; Has been communicated to Nepal. They accept in principle but there will be a contribution.
AI-37-13	**Germany (Mr. Marc Küster)**	

Item	Assigned to / action (Reference resolutions in document N2104, and minutes in document N2103, with the corrections to the minutes noted in section 3 of document N2203, for Meeting 37)	Status
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, M39 and M40 - in progress.	In progress; Marc is calling for a meeting on May 8 on Historic scripts.

16.3 Outstanding action items from meeting 38, 2000-07-18/21, Beijing, China

Item	Assigned to / action (Reference resolutions in document N2204, and minutes in document N2303, with the corrections to the minutes noted in section 3 of document N2253, for Meeting 38)	Status
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: action item M17-5 d, reassigned to Myanmar national body. M39 and M40 - in progress.	In progress; Mr. Takayuki Sato is in contact with Myanamar.

16.4 Outstanding action items from meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece

Item	Assigned to / action (Reference resolutions in document N2254, and minutes in document N2253, with the corrections to the minutes noted in section 3 of document N2353, for Meeting 39)	Status
AI-39-2	**Convener - Mr. Mike Ksar**	
a	To act on Resolution M39.1 (Feedback to Armenia): With reference to the fax message received from SARM, the Armenian national body, via the Armenian embassy in Athens, WG2 instructs its convener to respond as follows: a. reaffirming the previous resolution M38.17 b. informing SARM that ISO/IEC 10646-1 is a published standard, not a DRAFT, and cannot be suspended, and, c. inviting SARM to participate in SC2 and its working groups towards better harmonization of Armenian standards with SC2-developed standards and to actively participate in the technical program of work of SC2/WG2. M40 - in progress.	In progress.
b	Resolution M39.11 (Request from Bangladesh): In response to the request from Bangladesh Standards and Testing Institution in document N2261 for adding KHANDATA character to 10646, WG2 instructs its convener to communicate to the BSTI: a. that the requested character can be encoded in 10646 using the following combining sequence: Bengali TA (U+09A4) + Bengali Virama (U+09CD) + ZWNJ (U+200C) + Following Character(s), to be able to separate the KHANDATA from forming a conjunct with the Following Character(s). Therefore, their proposal is not accepted. b. our understanding that BDS 1520: 2000 completely replaces the BDS 1520: 1997. M40 - in progress.	In progress.
AI-39-3	**Editor of ISO/IEC 10646-1 Mr. Michel Suignard with assistance from contributing editors**	
	To prepare the appropriate AM, DAM or PDAM texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	

Item	Assigned to / action (Reference resolutions in document N2254, and minutes in document N2253, with the corrections to the minutes noted in section 3 of document N2353, for Meeting 39)	Status
a	Resolution M39.5 (Editorial Corrigenda): WG2 accepts the following proposed changes: a. revised character shapes for code positions 066B, 066C, 125C, 2216, 224C, 25AA, 25AB (from document N2238) in the BMP b. the updated Table 47 for Khmer in document N2274, with correction to the glyph for RIEL SIGN at 17DB per document N2238, and, c. the proposed changes to the glyphs of Letter-like Symbols in the BMP as suggested in document N2272 d. FEFF (ZWNBSP) - add the missing glyph. Further WG2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in 10646-1: 2000. Further, WG2 instructs its editor to update document N2232 - cumulative list of editorial corrigenda, and forward the corrigenda to ITTF with a request to publish the set as a Minor Revision to the standard. M40 - in progress.	In progress; some progress has been made in preparing the documents.
AI-39-6	**Irish national body (Mr. Michael Everson)**	
b	With reference to document N2241 on Egyptological characters, to refine the proposal working in an ad hoc group with other experts in Egyptology. M40 - in progress.	In progress.
c	Is invited to prepare a contribution on guidelines on the use of DIGITS versus NAMES of DIGITS in character names in 10646. M40 - in progress.	In progress.
AI-39-8	**The US national body (Messrs. Hideki Hiura, Arnold Winkler, Ken Whistler)**	
a	Mr. Hideki Hiura - to act on Resolution M39.3 (SOFT HYPHEN and others): With reference to document N2268, WG2 endorses the principle that SOFT HYPHEN - SHY and other similar characters in the standard must not be lost during interchange even though their properties and behaviour are not explicitly specified in SC2 standards, including 10646. Further WG2 requests Mr. Hideki Hiura to communicate this principle to the Linux community. M40 - in progress.	In progress.
AI-39-9	**IRG Rapporteur (Mr. Zhang Zhoucai)**	
a	Resolution M39.26 (DPRK - Ideographs in the BMP): The IRG is instructed to investigate creation of mapping tables of CJK ideographs and compatibility ideographs included in the BMP to their sources, including consideration for adding DPRK sources, similar to the data tables provided for CJK sources in 10646-2. M40 - in progress.	In progress.
b	To examine the proposal in document N2271 -- Proposal to amend two source code changes in BMP CJK Unified Ideographs block; TCA; 2000-09-19 – and advise WG2 on a possible corrigendum to 10646-1 for the T-Column entries in the CJK tables. M40 - in progress.	In progress.
AI-39-10	**The Unicode Consortium (Dr. Asmus Freytag)**	
a	With reference to document N2236 - Proposal for addition of COMBINING GRAPHEME JOINER; UTC – Mark Davis; 2000-08-10; the proposers are invited to update the proposal addressing the concerns raised during the discussions at the meeting. M40 - in progress.	In progress.

Item	Assigned to / action (Reference resolutions in document N2254, and minutes in document N2253, with the corrections to the minutes noted in section 3 of document N2353, for Meeting 39)	Status
b	To assist the editor in regard to Resolution M39.5 (Editorial Corrigenda): WG2 accepts the following proposed changes: a. revised character shapes for code positions 066B, 066C, 125C, 2216, 224C, 25AA, 25AB (from document N2238) in the BMP b. the updated Table 47 for Khmer in document N2274, with correction to the glyph for RIEL SIGN at 17DB per document N2238, and, c. the proposed changes to the glyphs of Letter-like Symbols in the BMP as suggested in document N2272 d. FEFF (ZWNBSP) - add the missing glyph. Further WG2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in 10646-1: 2000. Further, WG2 instructs its editor to update document N2232 - cumulative list of editorial corrigenda, and forward the corrigenda to ITTF with a request to publish the set as a Minor Revision to the standard. M40 - in progress.	In progress.
AI-39-12	**Chinese national body (Mr. Chen Zhuang)**	
a	To act on Resolution M39.17 (Dai scripts): With reference to documents N2239R and N2242R, Dehong Dai and Xishuang Banna Dai scripts, WG2 invites the Chinese national body to work with other national bodies and interested experts, and prepare revised proposals and proposal summary form, with assistance from the contributing editor Mr. Michael Everson, for consideration by WG2 at its next meeting in April 2001. M40 - in progress.	In progress.
AI-39-13	**All national bodies and liaison organizations**	
a	To review and feedback on the following items carried forward to next meeting. a) Document N2241 on adding 6 Egyptological characters b) Document N1638 on adding Meroitic in Plane 1 of ISO/IEC 10646-2 c) Document N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts. d) To take note of and contribute regarding Resolution M39.17 (Dai scripts), regarding documents N2239R and N2242R, on Dehong Dai and Xishuang Banna Dai scripts. M40 - in progress.	Noted. Some progress on Limbu script, see documents N2339, N2340.

16.5 New action items from meeting 40, 2001-04-02/05, Mountain View, CA, USA

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353, for Meeting 40)	Status
AI-40-1	**Meeting Secretary - Dr. V.S. UMAmaheswaran**	
a	To finalize the document N2354 containing the adopted meeting resolutions and send it to the convener as soon as possible.	Completed; see document N2354.
b	To finalize the document N2353 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	
AI-40-2	**Convener - Mr. Mike Ksar**	
a	With reference to Irish comment on PDAM-1 ballot, item 8: Add Cyrillic Supplement to be added to Open Collection MES-3a, to check other CEN/ISSS sources to get additional confirmation for the change in the MES collection definitions, as requested by Ireland.	
b	With assistance from Dr. Joe Bekker and Mr. Michael Everson to prepare and send a response to the questions on Lao script in document N2333.	
c	To finalize arrangements for Spring 2002 and Fall 2002 WG2 meetings.	
AI-40-3	**Editor of ISO/IEC 10646-1 Mr. Michel Suignard with assistance from contributing editors**	
	To prepare the appropriate AM, DAM or PDAM texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353, for Meeting 40)	Status
a	With the help of contributing editor Dr. Asmus Freytag: a. to ensure that the glyphs used in the FPDAM-1 charts are of the correct proportions and size (reference Swedish comment SE12 on PDAM-1). b. to produce a Summary of Glyph Changes in the charts for information to WG2. c. to get the proper glyph for the Arabic Tail Fragment from the font provider for Arabic charts	
b	To satisfy the Canadian ballot comment on PDAM-1 to 10646-1: "Comment 3: Regarding Variant Selector character, some explanatory text should be provided, A specific list of variants was also supposed to be included", an ad hoc group consisting of Messrs. Michel Suignard (Lead), Asmus Freytag, Ken Whistler and Michael Everson, is to meet and provide the necessary text to WG2 before end of this meeting.	
c	Resolution M40.4 (PDAM-1 to 10646-1:2000): WG 2 accepts the disposition of comments in document N2355 to ballot responses in documents N2328 on PDAM-1 to 10646-1: 2000. WG 2 particularly notes that the character at 17DD KHMER SIGN LAAK has been removed (pending further clarification), four new Recycling Symbols have been added, 25FF was moved to 27D0, and new 25FF LOWER RIGHT TRIANGLE was added . Also some character names and several character shapes have been refined, in PDAM-1, per national body comments. WG 2 instructs its editor with assistance from the contributing editors to prepare the text for FPDAM-1 reflecting the disposition of comments and the additional characters accepted per Relevant Resolution M40.5 below. WG 2 further instructs its editor to submit the FPDAM-1 text along with the disposition of comment to the SC 2 secretariat for further processing with unchanged target completion dates -- FPDAM 2001-10, FDAM 2002-02, AM 2002-06.	
d	Resolution M40.5 (Additional characters for BMP): WG 2 accepts the following new characters: a. 0220 in the BMP – LATIN CAPITAL LETTER N WITH LONG RIGHT LEG, with the proposed glyph in section 5c of document N2306R; b. 74 new Math Symbols including 11 Long Arrows recommended for inclusion by the Math Ad hoc group, with glyphs, names and positions per document N2356, with 21A4 moved to 21F4, and changes to block names discussed during the meeting; c. 14 additional Zapf Dingbat characters at positions 2768 through 2775, with the proposed names on page 4 and the proposed glyphs on page 5 of document N2321; d. FE73 in the BMP, ARABIC TAIL FRAGMENT with the glyph proposed on page 5 of document N2322; e. 066E ARABIC LETTER DOTLESS BEH and 066F ARABIC LETTER DOTLESS QAF, with glyphs shown in document N2357; f. 10F7 GEORGIAN LETTER YN and 10F8 GEORGIAN LETTER ELIFI, with glyphs shown in document N2346R; g. 034F – COMBINING GRAPHEME JOINER – with a glyph composed of a dotted circle with a dashed box with the letters CGJ inside it; h. Per discussion in meeting 40 on disposition of comments to ballot responses to PDAM-1 from Ireland and the US: i. 267A RECYCLING SYMBOL FOR GENERIC MATERIALS j. 267B BLACK UNIVERSAL RECYCLING SYMBOL k. 267C RECYCLED PAPER SYMBOL l. 267D PARTIALLY-RECYCLED PAPER SYMBOL m. 25FF LOWER RIGHT TRIANGLE n. in the BMP, with the glyphs as shown on page 3 of Irish comments in document N2328. WG 2 further resolves to progress these characters as part of Amendment 1 to 10646-1: 2000, and instructs its editor to include these characters in the text of FPDAM-1 (per Relevant Resolution M40.4 above).	

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353, for Meeting 40)	Status
e	Resolution M40.6 (Correction of Glyph Errors): WG 2 acknowledges several glyph errors in 10646-1 reported in the ballot responses in document N2238 to PDAM-1 and instructs its editor with assistance from the contributing editors to add the necessary corrections to the editorial corrections accumulated at the end of meeting 39 (updated document N2232 to be prepared by the editor per Relevant Resolution M39.5, in document N2254R). WG 2 further resolves to process those glyph corrections needed for the code tables in FPDAM-1 as part of FPDAM-1, and instructs its editor with assistance from the contributing editors to include the necessary corrigenda in FPDAM-1 text per Relevant Resolution M40.4 above. WG 2 further instructs its editor to create with the assistance of the contributing editors the text for a corrigendum to 10646-1: 2000 containing the remaining items from the editorial corrigenda, and submit to SC 2 secretariat for further processing as a minor revision.	
AI-40-4	**Editor of ISO/IEC 10646-2: Mr. Michel Suignard with assistance from contributing editors**	
	To take note of the following and incorporate the needed text in the next draft of ISO/IEC 10646-2:	
a	Resolution M40.3 (FDIS 10646-2): WG 2 notes the ballot results and comments in document N2337 to FDIS 10646-2 (N2309) and instructs its editor with assistance from the contributing editors, to prepare the .PDF files containing the final text of IS 10646-2, incorporating editorial changes discussed during the meeting, and forward it in a form suitable for ITTF publication on a CDROM, to meet the original publication target date of December 2001.	
b	Editor / Editorial committee to take care in naming of files on the CD-ROM version of the standard to be suitable for ease of use of the standard.	
AI-40-5	**Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)**	
a	With reference to discussion on Irish comment on PDAM-1 ballot (item 8: Add Cyrillic Supplement to be added to Open Collection MES-3a), revisit and enhance if needed the Collection Submissions in Principles and Procedures document.	
b	To update the information regarding USIs to clarify that one cannot have USIs in collection definitions in the standard.	
c	To note that WG2 does intend to respect the gaps (for example in math alphanumeric range) in code positions assigned to scripts for potential use of transient mappings when a script crosses plane boundaries.	
d	To clarify in the principles and procedures document that an existing open collection cannot be amended by extending the ranges; a new collection has to be defined if the ranges are extended.	
e	To summarize the discussion regarding the English character names and their translatability in other language versions (with reference to discussion on DPRK requests)	
f	Act on resolution M40.2 (Principles and Procedures): With reference to document N2352, WG 2 accepts the revisions to the principles and procedures, modified with comments from meeting 40 (as documented in N2352R). WG 2 further resolves to make this document and the updated versions of the Proposal Summary Form and the Roadmap documents accessible on the WG 2 web site home page as public documents, using a stable URL (such as ../roadmaps.html).	
AI-40-6	**Ad hoc group on Roadmaps (lead – Mr. Michael Everson)**	
a	To reflect results from discussion in Math ad hoc group and other changes arising out of discussions at meeting 40.	
b	To update document N2314 the Plane 1 roadmap document reflecting discussions at meeting 40.	
AI-40-7	**Irish national body (Mr. Michael Everson)**	

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353, for Meeting 40)	Status
a	To supply the font for Latin Capital Letter N with Long Right Leg to Dr. Asmus Freytag for inclusion in FPDAM-1 charts.	
b	Together with Dr. Joe Bekker to prepare a response on question on Lao script in document N2333 and send to the convener to respond.	
c	To prepare a document (jointly with the US) summarizing the email discussion on document N2317 and clarifying the behaviour / interactions of Combining Grapheme Joiner character.	
d	Is invited to revise the document N2338 on Ugaritic script resolving any outstanding issues on names etc. for consideration towards acceptance at the Singapore meeting.	
e	Is invited to revise the document N2327 on Aegean script resolving any outstanding issues on names etc. for consideration towards acceptance at the Singapore meeting.	
AI-40-8	**Ad hoc group on Korean script (co-chairs: Prof. Kyongsok Kim and DPR of Korea)**	
a	To take note of resolution M40.1 (Ad hoc report on Korean): With reference to the Korean ad hoc report in document N2331, WG 2 a. Advises the Korean ad hoc group to take note of and respect the following principles: i. once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters. ii. the arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard. iii. the character names chosen by WG 2 for the English version of the standard are unique, fixed and may be arbitrary; once a character name is assigned, it *cannot* be changed even if additional information is provided later. These name strings are used in implementations, for example to establish correspondences with characters in other standards. iv. any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation. b. nominates Professor Kyongksok Kim and an expert from DPR of Korea (name to be provided later) as co-chairs of the Korean ad hoc group; c. invites the Korean ad hoc group to review and refine the proposals from DPR of Korea according to the Korean ad hoc recommendations in document N2282 from meeting M39 in Athens; d. invites the Korean ad hoc group to prepare and contribute towards developing a set of Data Tables containing the sources for the CJK ideographs in 10646-1 (similar to the other CJK source data tables in FDIS 10646-2) for consideration by the IRG; e. recommends that the Korean ad hoc group direct items that are outside the scope of 10646, to other appropriate standards groups, for example ordering of Korean characters to SC 22/WG 20; and, f. suggests to DPR of Korea that one avenue for addressing their concerns about names for Korean characters in 10646-1 (English version) is to prepare a Korean language version of 10646 standard using the most appropriate Korean names for the 10646 characters.	
AI-40-9	**The US national body (Messrs. Michel Suignard, Joe Bekker)**	
a	To get a cleaner copy / rationale with glyphs of 17DD Khmer Laak and 17D8 Beyyal suitable for Mr. Takayuki Sato to be able to send for feedback to Cambodian Khmer experts (reference US comment T.1 to PDAM-1).	
b	Dr. Joe Bekker - together with Mr. Michael Everson to prepare a response to the questions on Lao script in document N2333 and send to the convener to respond.	
c	US (Mr. Edwin Hart) and Japan (Mr. Takayuki Sato) are invited to prepare the working document for revising the TR15285 based on the ad hoc report in document N2359.	

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353, for Meeting 40)	Status
AI-40-10	**IRG Rapporteur (Mr. Zhang Zhoucai)**	
a	To ensure the fonts for IRG charts in Part 2 are sent to the editor on schedule.	
AI-40-11	**Japanese national body (Mr. Takayuki Sato)**	
a	To provide correct references to JIS X0213 to include in the standard.	
b	To provide fonts for correct rendering of glyphs form JIS X0213.	
c	US (Mr. Edwin Hart) and Japan (Mr. Takayuki Sato) are invited to prepare the working document for revising the TR15285 based on the ad hoc report in document N2359.	
AI-40-12	**Swedish national body (Dr. Kent Karlsson)**	
a	Is invited to submit a contribution on the question of "whether IDS are graphic characters?" and related concerns raised during the discussion on disposition of comment SE2 from Sweden on PDAM-1.	
b	Is invited to propose annotation text regarding ScanLine characters for inclusion (with reference to discussion on Swedish comment SE6 on PDAM-1).	
c	Is invited to make a contribution regarding reserving permanently the gaps in Mathematical Alphanumeric range of code positions (with reference to discussion on Swedish comment SE8 on PDAM-1).	
AI-40-13	**All national bodies and liaison organizations**	
a	To review and feedback on the two recycling symbols - DO NOT LITTER SYMBOL and RECYCLING SYMBOL FOR GLASS in document N2342.	
b	To review for acceptability of the changed glyphs in FPDAM-1.	
c	Are reminded to include legible glyphs in any ballot response comments containing / referencing glyphs.	
d	To review and feedback on document N2316 BMP Roadmap	
e	To review and feed back on document N2297 on Cuneiform project (ICE) to the author Mr. Michael Everson.	
f	To review and provide feedback on document N2338 on Ugaritic script to the authors.	
g	To review and provide feedback on document N2327 on Aegean script to the authors.	
h	To review and feedback on document N2359, the ad hoc report on TR15285 revision.	
i	Organizations operating in Ireland are requested to contact the Irish National Body if they can help with hosting the Spring 2002 WG2 meeting in Ireland.	
j	To take note of resolution M40.9 (Future Meetings): WG 2 meetings: Meeting 41 – October 15--19, 2001, Singapore (co-located with SC 2 plenary) Meeting 42 – March/April 2002 –Ireland (Sweden, Norway as backups) Meeting 43 – Fall 2002 (co-located with SC 2 plenary) Japan (Norway backup). IRG meetings: IRG 17 HKSAR, 2001-06-18/22 IRG 18 Japan, 2001-12-03/07	

END OF MEETING MINUTES