

ISO/IEC JTC 1/SC 2
Coded Character Sets
Secretariat: [Japan \(JISC\)](#)

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TITLE		Draft minutes of WG 2 meeting 41, Hotel Phoenix, Singapore, 2001-10-15/19 [SC 2/WG 2 N 2403]
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ISO/IEC JTC 1/SC 2/WG 2 N2403

DATE: 2002-04-22

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

DOC TYPE: Meeting Minutes

TITLE: Draft minutes of WG 2 meeting 41, Hotel Phoenix, Singapore
2001-10-15/19

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 2002-05-15.

ACTION ID: ACT

DUE DATE: 2002-05-15

DISTRIBUTION: SC 2/WG 2 members and Liaison organizations

MEDIUM: Paper

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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 N2403
Date: 2002-04-22

Title:	Draft minutes of WG 2 meeting 41, Hotel Phoenix, Singapore; 2001-10-15/19
Source:	V.S. Umamaheswaran (umavs@ca.ibm.com), Recording Secretary Mike Ksar (mikeksar@microsoft.com), Convener
Action:	WG 2 members and Liaison organizations
Distribution:	ISO/IEC JTC 1/SC 2/WG 2 members and Liaison organizations

1 Opening and roll call

Input document:
N2367 2nd Call and updated preliminary agenda – WG 2 meeting 41; Ksar; 2001-08-10

The convener Mr. Mike Ksar opened the meeting at 10:03h on Monday 2001-10-15. He welcomed all the delegates to Meeting 41 and introduced the host.

Ms Thay Yen Lan, representing the host Information Technology Standards Committee (ITSC), Singapore, welcomed everyone to Singapore, and explained the meeting arrangements and logistics. A Unicode Seminar is hosted by ITSC Singapore group on Friday morning. Delegates who have not informed the host about attending the dinner on Wednesday evening hosted by ITSC and other sponsors were requested to inform Ms. Lan.

Soft copy was the distribution methodology for this meeting. All the documents for the meeting were posted to the WG 2 web site prior to the meeting; no hardcopies were distributed, nor were they made available at the meeting. A CD-ROM containing all the documents was available for those who wanted the soft copies. Those who wanted to print the documents could use the printer facilities provided by the host. Two internet links were also made available in the room. The target was to finish all the discussion on contributions by Wednesday afternoon, leaving Thursday morning for reviewing and taking resolutions.

1.1 Roll Call

Input document:
N2351R Updated WG 2 experts list - post M 40; Ksar; 2001-10-10

Document N2351 containing the latest WG 2 experts' list with address and phone numbers, was circulated for review and corrections. Mr. Mike Ksar welcomed the guests from Cambodia, who were attending WG 2 for the first time.

The following twenty seven (27) delegates representing eight (8) national bodies, one (1) liaison organization and ten (10) guests attended the meeting.

Name	Representing	Affiliation
Alain LaBonté V. S. (Uma) Umamaheswaran	Canada Canada, Recording Secretary	Gouvernement du Québec IBM Canada
Zhang Zhoucai HARADA Shiro Helen Jarvis	China, IRG Rapporteur Guest - Cambodia Guest - Cambodia	CCID University of Tokyo Advisor to H.E. Sok An, Minister for the Council of Ministers, Cambodia

Name	Representing	Affiliation
LAO Kim Leang	Guest - Cambodia	Japan Quality Assurance Organization
Norbert Klein	Guest - Cambodia	National ICT Development Authority, Cambodia
Sorasak PAN	Guest - Cambodia	Under Secretary of State, Prime Minister's Office, Cambodia
UNG Vuthy	Guest - Cambodia	National ICT Development Authority, Cambodia
Mony Sokha Sath	Guest - Japan	Lemon Computer
Elżbieta Broma-Wrzesień	Guest - Poland	Polish Committee for Standardisation
Shun ISHIZAKI	Japan	Keio University
Takayuki K. SATO	Japan	Centre of the International Cooperation for Computerization
Tatsuo L. KOBAYASHI	Japan	Justsystem Corporation
Mun Hwang Ryong	DPR of Korea	Korea Computer Center
Pak Tong Ki	DPR of Korea	Committee for Standardization
Yang Song Jin	DPR of Korea	Pyongyang Informatics Centre
Yun Chang Hwa	DPR of Korea	Academy of Science of the DPR of Korea
Kyongsok Kim	Republic of Korea	Busan National University
Kohji Shibano	SC 2 Chair	Tokyo University of Foreign Studies
Toshiko Kimura	SC 2 Secretariat	IPSJ/ITSCJ, Japan
Cao Lin	Singapore	Sybase (Singapore) Pte Ltd
James Seng	Singapore	i-DNS.net Int'l Pte Ltd
Monica Ståhl Forsberg	Sweden	Informationstekniska standardiseringen - ITS
Michael Y. Ksar	USA, Convener	Microsoft Corporation
Michel Suignard	USA; Editor Parts 1 & 2	Microsoft Corporation
Asmus Freytag	USA; Liaison - The Unicode Consortium; Contributing editor	Unicode, Inc.

Drafting committee: The draft resolutions were prepared by the recording secretary Dr. V.S. Umamaheswaran with assistance from Messrs. Asmus Freytag (a contributing editor), Takayuki Sato, Professor Kyongsok Kim (co-chair of Korean ad hoc), Michel Suignard (the editor) and Mike Ksar (the convener).

2 Approval of the agenda

Input document:

N2367 2nd Call and updated preliminary agenda – WG 2 meeting 41; Ksar; 2001-08-10

The draft agenda in document N2367 was approved with some modifications, and additions of new documents to the different agenda items. All other changes made during the progress of the meeting are captured and are reflected in the appropriate sections in these minutes. Some of the agenda items have been reorganized in this document. The following table of contents reflects the agenda items.

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3 Approval of minutes of meeting 40

Input document:

N2353 Minutes of meeting 40 - Mountain View; Uma/Ksar; 2001-09-09

Dr. Umamaheswaran introduced document N2353 containing the minutes of meeting 40, which was sent out on 2001-09-09 with a request for comments by 2001-09-30. The draft minutes were accepted with the following editorial changes:

- Change Dr. Bekker's name to Dr. Becker wherever it appears.
- Change N2353DRAFT to N2353 on page 3.

4 Review of action items from previous meeting(s)

Input document:

N2353 Minutes of meeting 40 - Mountain View; Uma/Ksar; 2001-09-09

Dr. Umamaheswaran reviewed the outstanding action items in section 16 of document N2353. The updated status for each item is shown in the tables in the following sections. All action items that were not completed are carried forward to the next meeting and are shown in section 16 on page 37.

4.1 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 dropped. Only new action items from the last meeting and outstanding action items from earlier meetings 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)

4.2 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.
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 WG 2 discussion, and to supply the contact names etc. to Messrs. Michael Everson and Rick McGowan. M38, M39 and M40 - in progress.	Dropped.

4.3 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.

4.4 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, WG 2 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 SC 2 and its working groups towards better harmonization of Armenian standards with SC 2-developed standards and to actively participate in the technical program of work of SC 2/WG 2. M40 - in progress.	Dropped; Resolutions document were available to Armenia.
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 ISO/IEC 10646, WG 2 instructs its convener to communicate to the BSTI: a. that the requested character can be encoded in ISO/IEC 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.	Dropped; Resolutions document were available to Armenia.
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): WG 2 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 WG 2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in ISO/IEC 10646-1: 2000. Further, WG 2 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.	Completed; see document N2364 – FPDAM-1 document.
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 ISO/IEC 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, WG 2 endorses the principle that SOFT	Dropped; WG 2 is disappointed that this

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
	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 SC 2 standards, including ISO/IEC 10646. Further WG 2 requests Mr. Hideki Hiura to communicate this principle to the Linux community. M40 - in progress.	work item was NOT carried out.
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 ISO/IEC 10646-2. M40 - in progress.	Completed; see document N2376.
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 WG 2 on a possible corrigendum to ISO/IEC 10646-1 for the T-Column entries in the CJK tables. M40 - in progress.	Completed; see document N2382.
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.	Completed; see document N2370.
b	To assist the editor in regard to Resolution M39.5 (Editorial Corrigenda): WG 2 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 WG 2 requests the Unicode Consortium to prepare the updated Tables reflecting the above corrections in a form suitable for replacing the corresponding Tables in ISO/IEC 10646-1: 2000. Further, WG 2 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.	Completed; see document N2364 – FPDAM-1 document.
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, WG 2 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 WG 2 at its next meeting in April 2001. M40 - in progress.	Completed; see document N2371.
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.	Dropped; some feedback in documents N2371 and N2372 on Dai scripts.

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

Item	Assigned to / action (Reference resolutions in document N2354, and minutes in document N2353, with the corrections to the minutes noted in section 3 of document N2403, for Meeting 40)	Status
AI-40-1	Meeting Secretary - Dr. V.S. UMAhaheswaran	
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.	Completed; see document N2353.
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.	Completed; see CEN TC304 liaison report.
b	With assistance from Dr. Joe Becker and Mr. Michael Everson to prepare and send a response to the questions on Lao script in document N2333.	In progress.
c	To finalize arrangements for Spring 2002 and Fall 2002 WG 2 meetings.	In progress.
AI-40-3	Editor of ISO/IEC 10646-1 Mr. Michel Suignard with assistance from contributing editors	
	<i>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:</i>	
a	With the help of contributing editor Dr. Asmus Freytag: <ul style="list-style-type: none"> 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 WG 2. c. to get the proper glyph for the Arabic Tail Fragment from the font provider for Arabic charts 	In progress.
b	To satisfy the Canadian ballot comment on PDAM-1 to ISO/IEC 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 WG 2 before end of this meeting.	In progress.
c	Resolution M40.4 (PDAM-1 to ISO/IEC 10646-1:2000): WG 2 accepts the disposition of comments in document N2355 to ballot responses in documents N2328 on PDAM-1 to ISO/IEC 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.	Completed; see document N2364 – FPDAM-1 document.
d	Resolution M40.5 (Additional characters for BMP): WG 2 accepts the following new characters: <ul style="list-style-type: none"> 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 	Completed; see document N2364 – FPDAM-1 document.

Item	Assigned to / action (Reference resolutions in document N2354, and minutes in document N2353, with the corrections to the minutes noted in section 3 of document N2403, for Meeting 40)	Status
	<p>5 of document N2321;</p> <p>d. FE73 in the BMP, ARABIC TAIL FRAGMENT with the glyph proposed on page 5 of document N2322;</p> <p>e. 066E ARABIC LETTER DOTLESS BEH and 066F ARABIC LETTER DOTLESS QAF, with glyphs shown in document N2357;</p> <p>f. 10F7 GEORGIAN LETTER YN and 10F8 GEORGIAN LETTER ELIFI, with glyphs shown in document N2346R;</p> <p>g. 034F – COMBINING GRAPHEME JOINER – with a glyph composed of a dotted circle with a dashed box with the letters CGJ inside it;</p> <p>h. Per discussion in meeting 40 on disposition of comments to ballot responses to PDAM-1 from Ireland and the US:</p> <p>i. 267A RECYCLING SYMBOL FOR GENERIC MATERIALS</p> <p>j. 267B BLACK UNIVERSAL RECYCLING SYMBOL</p> <p>k. 267C RECYCLED PAPER SYMBOL</p> <p>l. 267D PARTIALLY-RECYCLED PAPER SYMBOL</p> <p>m. 25FF LOWER RIGHT TRIANGLE</p> <p>n. in the BMP, with the glyphs as shown on page 3 of Irish comments in document N2328.</p> <p>WG 2 further resolves to progress these characters as part of Amendment 1 to ISO/IEC 10646-1: 2000, and instructs its editor to include these characters in the text of FPDAM-1 (per Relevant Resolution M40.4 above).</p>	
e	<p>Resolution M40.6 (Correction of Glyph Errors): WG 2 acknowledges several glyph errors in ISO/IEC 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).</p> <p>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.</p> <p>WG 2 further instructs its editor to create with the assistance of the contributing editors the text for a corrigendum to ISO/IEC 10646-1: 2000 containing the remaining items from the editorial corrigenda, and submit to SC 2 secretariat for further processing as a minor revision.</p>	In progress.
AI-40-4	Editor of ISO/IEC 10646-2: Mr. Michel Suignard with assistance from contributing editors	
	<i>To take note of the following and incorporate the needed text in the next draft of ISO/IEC 10646-2:</i>	
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.	In progress.
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.	In progress.
AI-40-5	Ad hoc group on principles and procedures (lead - Dr. V.S. UMaaheswaran)	
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.	Completed; see document N2352R.
b	To update the information regarding USIs to clarify that one cannot have USIs in collection definitions in the standard.	Completed; see document N2352R.
c	To note that WG 2 does intend to respect the gaps (for example in math	Completed; see

Item	Assigned to / action (Reference resolutions in document N2354, and minutes in document N2353, with the corrections to the minutes noted in section 3 of document N2403, for Meeting 40)	Status
	alphanumeric range) in code positions assigned to scripts for potential use of transient mappings when a script crosses plane boundaries.	document N2352R.
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.	Completed; see document N2352R.
e	To summarize the discussion regarding the English character names and their translatability in other language versions (with reference to discussion on DPRK requests)	Completed; see document N2352R.
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).	Completed; see document N2352R.
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.	Completed; see document N2383.
b	To update document N2314 the Plane 1 roadmap document reflecting discussions at meeting 40.	Completed; see document N2383.
AI-40-7 Irish national body (Mr. Michael Everson)		
a	To supply the font for Latin Capital Letter N with Long Right Leg to Dr. Asmus Freytag for inclusion in FPDAM-1 charts.	Completed; see document N2364 – FPDAM-1 document.
b	Together with Dr. Joe Becker to prepare a response on question on Lao script in document N2333 and send to the convener to respond.	In progress.
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.	In progress.
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.	Completed; see document N2370.
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.	Completed; see document N2378.
AI-40-8 Ad hoc group on Korean script (co-chairs: Prof. Kyongsok Kim and DPR of Korea)		
a	<p>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</p> <p>a. Advises the Korean ad hoc group to take note of and respect the following principles:</p> <ol style="list-style-type: none"> once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters. the arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard. 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. any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation. <p>b. nominates Professor Kyongsok Kim and an expert from DPR of Korea (name to be provided later) as co-chairs of the Korean ad hoc group;</p> <p>c. invites the Korean ad hoc group to review and refine the proposals from</p>	Noted; DPRK has NOT nominated a co-chair.

Item	Assigned to / action (Reference resolutions in document N2354, and minutes in document N2353, with the corrections to the minutes noted in section 3 of document N2403, for Meeting 40)	Status
	<p>DPR of Korea according to the Korean ad hoc recommendations in document N2282 from meeting M39 in Athens;</p> <p>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 ISO/IEC 10646-1 (similar to the other CJK source data tables in FDIS 10646-2) for consideration by the IRG;</p> <p>e. recommends that the Korean ad hoc group direct items that are outside the scope of ISO/IEC 10646, to other appropriate standards groups, for example ordering of Korean characters to SC 22/WG 20; and,</p> <p>f. suggests to DPR of Korea that one avenue for addressing their concerns about names for Korean characters in ISO/IEC 10646-1 (English version) is to prepare a Korean language version of ISO/IEC 10646 standard using the most appropriate Korean names for the ISO/IEC 10646 characters.</p>	
AI-40-9	The US national body (Messrs. Michel Suignard, Joe Becker)	
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).	In progress.
b	Dr. Joe Becker - 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.	In progress.
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.	In progress.
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.	Completed, though not on schedule.
AI-40-11	Japanese national body (Mr. Takayuki Sato)	
a	To provide correct references to JIS X0213 to include in the standard.	Completed.
b	To provide fonts for correct rendering of glyphs from JIS X0213.	Completed.
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.	In progress.
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.	In progress.
b	Is invited to propose annotation text regarding ScanLine characters for inclusion (with reference to discussion on Swedish comment SE6 on PDAM-1).	In progress.
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).	Dropped.
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.	Feedback from Japan.
b	To review for acceptability of the changed glyphs in FPDAM-1.	Feedback from Japan.
c	Are reminded to include legible glyphs in any ballot response comments containing / referencing glyphs.	Noted.
d	To review and feedback on document N2316 BMP Roadmap	Noted.
e	To review and feed back on document N2297 on Cuneiform project (ICE) to the author Mr. Michael Everson.	Noted.
f	To review and provide feedback on document N2338 on Ugaritic script to the authors.	Noted; see document N2370.
g	To review and provide feedback on document N2327 on Aegean script to the authors.	Noted; see documents N2370, N2378
h	To review and feedback on document N2359, the ad hoc report on TR15285 revision.	No feedback; Open.

Item	Assigned to / action (Reference resolutions in document N2354, and minutes in document N2353, with the corrections to the minutes noted in section 3 of document N2403, for Meeting 40)	Status
i	Organizations operating in Ireland are requested to contact the Irish National Body if they can help with hosting the Spring 2002 WG 2 meeting in Ireland.	Noted.
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	Noted.

5 JTC 1 and ITTF matters

5.1 Response to request from Cambodia on ISO/IEC 10646

Input document:

N2380R Cambodian official objection to the existing Khmer block in UCS; Cambodian committee for standardisation; 2001-10-08

Mr. Mike Ksar: Document N2380 contains the query from Cambodia sent to WG 2 from SC 2, which received it from JTC 1. The response was sent by me via email to SC 2 to respond to Mr. Tom Frost, Chair of JTC 1, on 2001-05-30 -- in response to the query from Cambodia. The email response is not part of distributed WG 2 documents. WG 2 has received in the past requests (similar to what we have from Cambodia) from Armenia, DPRK, from China regarding Arabic scripts and others. I have chosen to read the email correspondences (see extract below) to reconfirm WG 2 principles, WG 2 has followed these procedures for quite some time. I want to ensure that our guests from Cambodia understand these principles and procedures.

"SC 2/WG 2 deals with issues pertaining to the repertoire based on a process and a set of principles that has been agreed to and followed when other national bodies requested similar actions from SC 2/WG 2. Here are the main points of this process:

- ISO/IEC 10646-1 is a published standard, not a DRAFT, and cannot be suspended.
- Once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters.
- The arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard. This is part of ISO/IEC 14651 which was developed by SC 22/WG 20.
- 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. Informative clarifying text regarding usage of names of scripts can be considered.
- Any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation, e.g. The Unicode Standard or national standards.
- All new character proposals should be submitted following the guidelines in the SC 2/WG 2 Principles and Procedures document, N2352R, posted on the SC 2/WG 2 web site, or available by request from the convener, or SC 2 secretariat. The conventions for naming of characters in the standard are part of that document."

Discussion:

- Mr. Sorasak Pan: I appreciate your explanation of the procedures. I have not received your response yet. Cambodia did send several letters for suspending ISO/IEC 10646. One of them seems to have trickled down to the convener of WG 2. Cambodia is in the process of consolidating the IT standards. We set up the national committee in year 2000. The ICT

authority was set up in August 2000, after the publication of ISO/IEC 10646. ISB of Cambodia was not informed of ISO/IEC 10646 / WG 2 procedures. We did look at ISO/IEC 10646 code charts (for Khmer script). However, we feel several changes are needed.

- b. Mr. Mike Ksar: WG 2 convener had no way of knowing who to correspond with in Cambodia. It is up to JTC 1 to send to Cambodia / since Cambodia is an ISO correspondent. Are there any questions about the WG 2 process?
- c. Dr. Helen Jarvis: There are quite separate issues. The view of Cambodia is that there was no involvement from Cambodia in developing the standard. Even though the standard clearly states that the standard cannot be changed, we cannot accept the principles.
- d. Mr. Mike Ksar: If you want to challenge the process, procedures etc., WG 2 is the wrong body. WG 2 is a group of technical experts. There is no official Cambodian delegation as such - in the sense that Cambodia is not a P member of SC 2 nor of JTC 1. JTC 1 has been fully aware of WG 2 procedures, and SC 2 has approved the procedures. These procedures have been accepted by all the member bodies participating in SC 2.
- e. Mr. Alain LaBonté: Any ISO member has an opportunity at the SC 2 plenary and challenge the procedures etc.
- f. Mr. Michel Suignard: The technical discussion is what we have in WG 2. We should not be questioning the processes etc.
- g. Mr. Sorasak Pan: Where should we be taking up the challenge? How can Cambodia be fully participating?
- h. Mr. Mike Ksar: The JTC 1 chair is who we got your query from. You may want to correspond with the SC 2 secretariat and JTC 1 chair. Cambodia can become a member of SC 2 and JTC 1. You can get the details from the SC 2 secretariat.
- i. Dr. Helen Jarvis: There seems to be a question of whether the script that has been standardized, which is affecting a country that has not been a participant in the decisions of the standard, can be valid.
- j. Dr. Umamaheswaran: Please be aware that the WG 2 works on the best information available on any script to this group.
- k. Mr. Michel Suignard: Every country has every right to participate. Scripts are properties of everyone in the world.
- l. Dr. Asmus Freytag: There have been questions on scripts which do not necessarily belong to any particular country. We take the best information available on any script. We welcome your input just in case we have missed any aspect of Cambodian script. The technical solution is based on the best information being made available – the framework indicated by the convener is relevant to that. If there are any questions about the script itself and the technical aspects of it, we can certainly take it up outside this big forum.
- m. Mr. Sorasak Pan: Our question is to understand how you came up with a Khmer code table that is not quite efficient for our purposes. You may have had some Khmer expertise in the past. We would like to accept your framework, but I would like to see if you are willing to change or not also.
- n. Mr. Mike Ksar: As to the technical discussion on Khmer script, we can set up an ad hoc group interested in the script to discuss the technical issues. The Cambodian ad hoc can meet during evenings or during breaks. The ad hoc group will consist of Messrs. Alain LaBonté, Takayuki Sato, Asmus Freytag, Mony Sath, and members of the Cambodian delegation. Mr. Takayuki Sato is nominated as the chair of the ad hoc group. Any clarification regarding the procedures (the WG 2 framework that has been outlined earlier) may be made to the ad hoc members. The ad hoc should meet and submit a report, and the report from the ad hoc group should be on technical aspects of the Cambodian input.

See section 7.10 on page 25 for results from the ad hoc discussion.

5.2 Message from DPR of Korea on Mapping

Mr. Mike Ksar: There was an email with a question on the process that we went through in publishing Part 2 of standards. I want to reaffirm WG 2 framework and process. It seems that the Korean ad hoc has been following the WG 2 framework. The question was that the cross mapping of DPRK standards was not included in Part 2 first edition. Last September we had indicated that if we did not get the final

approved version from IRG it will not be included in the first edition. Since they were not ready in time, they were not included. These can now be included as an amendment of Part 2, first edition.

Discussion:

- a. Mr. Yang Song Jin: I would like to express our appreciation to WG 2 and to the IRG for adding the Hanja information. We also discussed adding Hanja column to Part 1. It was also discussed in IRG meeting #15 in Beijing. Resolution M39.36 also referred to the same. These were not included in the amendment to Part 1. The Hanja source information is finalized, frozen and accepted by IRG. We would like to get these added to Part 1 and to Part 2.
- b. Mr. Michel Suignard: There is no disagreement in principle as to what DPRK wants us to do. It was a question of Calendar. The FDIS of Part 2 was at the last meeting – March 2001. Once the FDIS is approved we could not change its technical content. We only agreed to fix some glyphs. The IRG resolution could not be honoured by the editor since no technical changes can be done the FDIS. It can be accommodated as an amendment to Part 2.
- c. Mr. Zhang Zhoucai: It could have been a misunderstanding. I thought there was some agreement made -- one was to finalize the table, and second one was to add as a favour to include the DPRK mapping table if it was finalized. IRG meeting itself did not have a firm mapping table, but it was fixed later. IRG submitted the fixed information to the editor, who said it was too late to include the DPRK source information in Part 2 FDIS.
- d. Mr. Michel Suignard: By March 2001, the control of the FDIS was handed over to ITTF. The matter was not just adding a mapping table, there were also changes needed for the textual part. IRG should have also been aware of the process involved. There was some extension regarding glyph change (editorial part) given to IRG. However, the mapping part was NOT just editorial.
- e. Mr. Takayuki Sato: The editor has already stated that we cannot make any changes -- actually the process asks for changes prior to FDIS ballot itself, not after the FDIS ballot resolution.
- f. Mr. Mike Ksar: Part 2 is due for publication by end of October 2001 – ahead of schedule. However, the only changes from FDIS to the final publication were cleaning up the glyphs. No changes were permitted to the technical content. The DPRK input can be included in the next amendment to Part 2. DPRK is requested not to send around messages that may not be in the better interests of cooperative working of the members in WG 2, especially when everyone is working with items that we have all agreed to.

6 SC 2 matters

6.1 SC 2 Program of Work

The SC 2 program of work is available on the SC 2 web site. It contains all the work items related to WG 2 and WG3. Delegates can read from SC 2 web site - see <http://std.dkuug.dk/JTC1/SC2/open/pow.htm>. See also section 6.4 below on WG 2 report to SC 2.

6.2 Submittals to ITTF

ISO/IEC 10646-2 (E) has been sent to ITTF, and is scheduled for publication end of October 2001.

6.3 Ballot results

Document N2388 (SC 2 3556) contains the results of ballot on FPDAM-1 to ISO/IEC 10646-1: 2000. See section 7.1 on page 16 for disposition of comments.

6.4 Draft WG 2 Report to SC 2

Input document:

N2368R Draft WG 2 Report to SC 2; Ksar; 2001-10-15

Document N2368 was updated at the end of this meeting incorporating the results from this meeting. It contains all the work items that we have on WG 2's program, includes all new proposals under consideration for future, and the project sub division proposals for new amendments to Part 1 and Part 2.

Discussion:

- a. Mr. Zhang Zhoucai: Can Macau SAR become a liaison organization to WG 2?
- b. Mr. Mike Ksar: A statement of mutual benefits will need to be prepared and submitted to SC 2.

6.5 Request SC 2 to publish WG 2 policy on changes to ISO/IEC 10646

WG 2 has been getting requests to change standardized character names, order of characters in a script etc. from several new national body participants in WG 2 over the last few years. WG 2 does have a

framework within which orderly development of ISO/IEC 10646 is done. The set of principles has to be publicized widely so that all new participants and current participants in SC 2 and JTC 1 are aware. WG 2 will request SC 2 to make the WG 2 framework of developing standards as SC 2 policy and publish it on the SC 2 web site. See the relevant resolution M41.11 below.

Relevant resolution:

M41.11 (Policy regarding acceptable changes to ISO/IEC 10646):

Against: DPR of Korea;
Abstention: Japan;

For: Canada, China, Republic of Korea, Singapore, Sweden and the USA.

WG 2 requests SC 2 adopt the following policy regarding acceptable changes to ISO/IEC 10646 and convey the same to JTC 1 for information and to SC 2 membership to take note:

- a. Once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters.
- b. The arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard.
- c. 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, for example to establish correspondences with characters in other standards.
- d. Any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation.

WG 2 further instructs its editor to prepare suitable text to reflect the above policy and incorporate it into Amendment 2 of Part 1.

7 ISO/IEC 10646-1: 2000

7.1 FPDAM1 10646-1:2000 - disposition of ballot comments

Input documents:

N2364 (SC 2 N3530)

FPDAM 1 – 10646-1: 2000 (SC 2 N3530); Suignard; 2001-06-07

N2379 Additional Swedish comments to NB comments; Karlsson; 2001-10-03

N2388 (SC 2 N3556)

**Summary of Voting on ISO/IEC JTC 1/SC 2 N 3530: ISO/IEC 10646-1: 2000/FPDAM 1 Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- Part 1: Architecture and Basic Multilingual Plane
AMENDMENT 1: Mathematical symbols and other characters**

N2389 Proposed disposition of comments on SC 2 N 3530 (FPDAM text for Amendment 1 to ISO/IEC 10646-1:2000); Suignard; 2001-10-15

Output document:

N2389R (SC 2 N3564R)

Disposition of Comments on SC 2 N 3530 (FPDAM text for Amendment 1 to ISO/IEC 10646-1:2000) - revised version; Suignard; 2001-10-26

Mr. Michel Suignard: Document N2388 contains the ballot results. Document N2389Draft contains the proposed disposition of comments. Canada, Iran, Sweden, USA had Approved with comments. Finland, Greece, Ireland, Japan, Norway, Poland, and later Netherlands had Disapproved. France had abstained. 11 national bodies had not responded. Most of the disapprovals were related to the MES collection identifiers. The proposed draft dispositions in document N2389 were reviewed.

Canada - Approval with comments.

Comment 1: Request for new Collection identifiers for fixed collections corresponding to Unicode 3.1 and Unicode 3.2

Accepted: Collection ids 303 and 304 will be assigned.

Comment 2: Distinguishing between corrigenda glyphs versus additional glyphs.

Accepted: Add a separate section titled Errata to Part 1 into the FPDAM-1 document.

Dr. Asmus Freytag: The highlighting of glyphs in the charts was to be able to generate a separate list of characters that were added. If the desire is to keep the shading, we can show both the Errata and the Additions.

Comment 3: Inconsistencies in the labels associated with table titles.

It is not an inconsistency. The titles are correct. Canada withdrew the comment.

Comment 4: MES 3A, MES 3B definition

The CEN Workshop Agreement (CWA) definition differs from what is in the FPDAM-1. If these collections are included as they are defined, the current labels cannot be used. The choices are either to go back to previous definitions as in CWA keeping the labels; or, change the content and the labels.

Discussion:

- a. Mr. Michel Suignard: I have the concern that Annex A becomes the place where we get different revisions of MES-s.
- b. Dr. Umamaheswaran: There was also a CEN TC304 liaison report with some information related to this topic – see document N2384.
- c. Dr. Asmus Freytag: We can revert to the original CWA definition, or, can add more collections in future amendments.
- d. Ms. Monica Ståhl Forsberg: May be it will give CEN TC304 a chance to get clarification. We can live with postponing MES-3A, 3B -- as long as MES-1 and MES-2 are both in.
- e. Mr. Michel Suignard: MES-1 and MES-2 will stay. The comments were all only on MES-3s. Other countries have requested that MES-3A, MES-3B should be exactly the same as in the CWA.
- f. Finnish comments: Labels MES-3A and MES-3B cannot be used when the contents do not match what is in CWA. Finland would like to get a bigger collection. The original collections will be useful only for History.
- g. Irish comment: Ireland wants expanded collection with different labels.
- h. Ms. Elżbieta Broma-Wrzesień: Polish Disapproval with comment is that the exact collections from CWA should be put in as MES-3A, MES-3B. We would like to see collections identical to CWA into the current amendment. We could live with postponing the decision and add the correct collection in the future.
- i. Dr. Umamaheswaran: Canada requests a postponement – accepted. US also requested the same. WG 2 should request Finland and Ireland to get wider agreement from other members of CEN TC304 as to what is needed and acceptable.

Postpone inclusion of MES-3A, MES-3B or revised and renamed versions of these, for the next amendment to Part 1. Invite Finland and Ireland to revise the collections with wider agreement from affected users and national bodies.

Comment 5: Errata in existing collection definitions.

Accepted; also part of defect report document N2377. Process it as an Editorial Corrigendum.

Finland - Disapproval with comments

Comment 1a – names for MES-3 should be different.

Comment 1b – adding a note about implementers may wish to exclude Hebrew characters.

Postponing the inclusion of MES-3A, MES-3B will make the Finnish comment moot. Their Disapproval should change to Approval.

Greece - Disapproval with comment

T.1 - Table name is not changed from published ISO/IEC 10646-1: 2000 by Amendment 1.

It was in the second edition of the standard. The comment is NOT valid against the Amendment ballot. Not accepted.

Action item: Greece is invited to submit a technical corrigendum request separately - for future consideration by WG 2.

Iran - Approval with comments

T.1 - Add Arabic Sign RIAL

Already accepted separately - see section 7.8 on page 22.

T.2 – Provide better glyphs for Dotless Beh and Dotless Qaf.

Accepted.

T.3 – Provide better glyph for FARSI SYMBOL

Accept in principle. Editors to look for a font with improved glyph for the character U+262B FARSI SYMBOL.

T.4 – Request to add more than just SPACE as a separator.
Not accepted. Sufficient rationale is not given as to why this change should be done.

All Editorial comments were accepted.

Ireland – Disapproval with comments

TC 1 - Name changes.

Not too late to accept these. Also in US comments. Accepted.

TC-2 - Request to change the definition of collections with labels other than MES-3A and MES-3B.

(Discussed earlier with Canadian comment disposition). Postpone inclusion in the standard based on a definition with wider agreement among European countries.

Japan – Disapproval with comments

TC 1 - Disunification of CJK brackets from math counterparts.

We had a resolution at the last meeting asking countries regarding the disunification of the CJK and Math brackets. Japan and US have answered to that resolution. US had originally the position of unification. After last WG 2 meeting the issue was discussed in the US committee and they have agreed to the disunification. Document N2345R shows the distinction in usage between CJK symbols and their counterparts in Math. When additional CJK symbols proposals come into WG 2 we have to take careful look at their use in the context of CJK versus general purpose symbols etc. The US had suggested the allocation to FF5F and FF60 in the full-width block. This allocation satisfies the Japanese comment.

Accepted.

TC 2:- Compatibility characters for JIS X0213. FA45 and 69EA should be unified.

We can leave a hole in the removed character or moving all by 1 code position.

Accept removal of FA45 and move the remaining characters up by 1.

Netherlands – Disapproval with comment

Comment: Objection to inclusion of all MESs.

Partially accepted – MES-3A and –3B collections are postponed. There is wide agreement on MES-1 and MES-2 and will be included.

Norway – Disapproval with comment

Comment: Retain Private Use Planes E0-FF and Private Use Groups 60 to 7F.

The purpose of the restriction in Amendment 1 is to be able to represent all defined characters using UTF-16. Norway's comment is not accepted. It will reverse the ballots of several countries who have accepted the restriction as the solution to remove the inconsistency within ISO/IEC 10646.

An informative note re: interoperability restriction of UCS-2 is also to be formulated.

Not accepted.

Poland - Disapproval with comment

Comment: MES-3A is expanded; should not be different from CWA.

Accepted - see response to Canadian comments above.

Sweden - Approval with comments

SE-1 - Disunify Math brackets.

Accepted; follows N2345R recommendations. See also US and Japan comments.

SE-2 - Consistency in Editor's notes.

Accepted.

SE-3 - Rewording to clarify all planes in all other groups. We cannot make these ILLEGAL.

Accepted in principle.

SE-4, SE-5 - Missing comma, hyphen etc.

Accepted.

SE-6 - MES- collections.
 Same as for Canada, Finland etc. See disposition of Canadian comments above.
 SE-7 - Collection-s.
 Accepted.
 SE-8 - Date format.
 Accepted. We can be consistent within the standard.
 SE-9 - Missing Space in LETTERKOPPA.
 Accepted.
 SE-10 - One too many "only" .
 Accepted
 SE-11 – U+2ADC, U+2ADD (forking/non-forking) - counter-intuitive glyph swap
 Not Accepted; Add comments similar to annotation from Unicode as additional character information in Annex P for characters U+2ADC and 2ADD.
 SE-12 - U+3018 –301B - positioning of the glyphs.
 Accepted: will be fixed to follow industry practice. (Similar to US comments T.6).
 SE-13 – Check glyph sizes for FA30 to FA6B.
 Accepted in principle: will be fixed by using better correct font.
 SE-14 – the use of phrase “this position shall not be used”.
 Not Accepted – this comment is not specific to this FPDAM, and is the standard terminology for all coded character set standards.

USA – Approval with comments

T.1 -Math and other characters – Supplemental Arrows A.
 Accepted.
 T.2 - Miscellaneous Math Symbols B.
 USA withdraws the comment.
 T.3 and T4 - Misc Math Symbols B.
 Accepted
 T.5 - Math Supplemental Operators.
 Accepted
 T.6 - Disunified Math symbols.
 Accepted
 T.7 - MES-3A, MES-3B.
 Accepted - similar to Canada response.
 T.8 - Annex B item 10
 0B83 is a technical corrigendum
 180B, C and D - Mongolian – to be added
 FE00 – to be added.
 T.9 - Annex B.1 – Augment the list of Combining Characters with more Variation Selectors.
 FE01-FE0F to be added.
 Note 2 will be expanded to indicate that FE01—FE0F are not currently used in any sequence.
Variation Selectors – details.
 Canadian request from PDAM Ballot Comments was missed. US has provided the input for the Mathematical Symbols. Use of Variation Selectors is specified to be valid only with specific other characters in the standard, and is specified in the table proposed in this new clause.
Action item: There is more work to do regarding Mongolian Variation Characters - to be completed for text of FDAM-1.
 Accepted.
 T.10 – Bi-directional Algorithm
 Add to list of normative references. Add a new clause. Accepted.
 T.11 Accepted in principle. Covered by Japanese request to removal of duplicate.

Disposition: Accept the disposition of comments in document N2389 as modified above. Dr. Asmus Freytag will assist in preparing the final charts. Output document N2389R contains the final disposition of comments. See relevant resolutions M41.1 and M41.4 below.

Relevant resolutions:

M41.1 (Disposition of FPDAM-1 ballot comments):

Against: Alain LaBonté (individual WG 2 expert)

For: Canada, China, Japan, DPR of Korea, Republic of Korea, Singapore, Sweden, and the USA

WG 2 accepts the disposition of comments in document N2389 to ballot responses in documents N2388 (SC 2 N3556) on FPDAM-1 to ISO/IEC 10646-1: 2000. The following significant changes are included in document N2389:

- a. Add two new fixed collections corresponding to Unicode versions 3.1 and 3.2 (per Canadian comment).
- b. Fix the defect in existing fixed collections 301 and 302 per document N2377 (and Canadian comment).
- c. Add RIAL SIGN at FDFC per document N2375 (and Iranian comment) with appropriate glyph.
- d. Remove FA45 – CJK compatibility character and move the following code positions up by one (Japan and US comments).
- e. Add a new normative clause for Bi-directional algorithm with a normative reference to the Unicode Bi-Di algorithm (US comment).
- f. Postpone addition of collections MES-3A and MES-3B to Amendment 2 to Part 1 pending clarification of their contents and their names (based on several NB comments).
- g. Based on acceptance of disunification of mathematical and CJK symbols in resolution M40.7, add eight new characters per document N2389 (US comment T.6)
- h. Accept 15 new Variation Selectors at positions FE01 to FE0F per document N2370 (Unicode liaison report) and document N2389 (US comment T.9).
- i. Accept new clause on variation selectors and the identified specific variants and sequences for mathematical and Mongolian variant characters (US comment).
- j. Adjustments to the names of a few characters (see N2389).

M41.4 (Progression of FDAM-1):

Against: Alain LaBonté (individual WG 2 expert)

For: Canada, China, Japan, DPR of Korea, Republic of Korea, Singapore, Sweden, and the USA

WG 2 instructs its editor to prepare and submit the FDAM-1 text along with the disposition of comments in document N2389, and reflecting resolutions M41.1 and M41.2 above, to the SC 2 secretariat for further processing with unchanged target completion dates -- FDAM 2002-02, AM 2002-06.

7.2 Add Cyrillic Supplement to Open Collection MES-3A

Input document:

N2384 Liaison Report from CEN TC 304; Erkki I. Kolehmainen, co-operation officer from CEN TC 304 to ISO/IEC JTC 1/SC 2; 2001-10-10

Document N2384 is the liaison document from CEN TC304. The topic of MES-3A, 3B collections has been discussed under section 7.1 above along with Canadian, US and other national body ballot comments on FPDAM-1.

Action item: Ireland and Finland are requested to propose an updated collection with agreement from affected parties, especially the European national bodies who had expressed concern over these collections, for consideration for inclusion in the next amendment to Part 1.

7.3 70 monogram, digram and hexagram characters

Input document:

N2363 Proposal to add monogram, digram and hexagram characters to the UCS in the BMP – 70 character; Cook, Everson & Jenkins; 2001-07-25

Dr. Asmus Freytag: The UTC has reviewed these characters in document N2363 and is in favour of adding these to already encoded trigrams. The UTC and WG 2 try to keep the two standards in synchronism. The characters and names are straight forward. The code positions proposed here have been slightly modified to avoid conflicts with already encoded characters. These characters should be considered as part of the next amendment to Part 1. Ireland is also asking for adding these to the next amendment to Part 1. There are already 8 symbols in the miscellaneous symbols block 2630—2637. The proposal is to put the mono and digrams at the end of the currently filled area. The remaining characters are proposed to be assigned at the end of CJK Extension A. There needs to be some investigation into the layout, block name, collection name etc. The block name is to be finalized.

Discussion:

- a. Mr. Sorasak Pan: Are these part of the Chinese script?
- b. Mr. Zhang Zhoucai: The IRG discussed these characters. There was no agreement as to whether these are ideographic or not. Such characters have very high frequency in ancient

Chinese writings. We can give you more information on its usage if needed. I would support such a proposal.

- c. Mr. Mike Ksar: We should accept the names and shapes from document N2363. This will be the beginning of accumulation of additions into the next amendment to Part 1 – into the next bucket. The process is to create a PDAM ballot first. Then to FPDAM ballot and then to publish the Amendment. Depending on the complexity of the scripts, it may take anywhere from 6 months to a year.

Disposition: WG 2 accepts these 70 characters from document N2363 for inclusion in the next amendment of Part 1, with revised code positions. See relevant resolution M41.5 on page 27.

7.4 Six phonetic characters

Input document:

N2366 Proposal to add five phonetic characters in BMP; Cook/Everson, Ireland; 2001-07-02
N2366R Proposal to add Six phonetic characters in BMP; Cook/Everson, Ireland; 2001-09-01

The revised document N2366R proposes to add 6 phonetic characters -- LATIN SMALL LETTER T, D, L and N with CURLS (at 0221, 0234, 0235 and 0236), Small Turned H with Fishhook at 2AE and H with Fishhook and Tail at 02AF.

Discussion:

Dr. Asmus Freytag: Five of these have been accepted by UTC. Small Letter L with Curl – has been proposed in N2366R, has not been reviewed by UTC as yet.

Disposition: WG 2 accepts the Six characters in document N2366R for inclusion in the next amendment to Part 1. See relevant resolution M41.5 on page 27.

7.5 Limbu script

Input document:

N2042 Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson; 1999-07-20
N2339 Limbu Script proposal – BMP; Everson 2001-04-02

Dr. Asmus Freytag: The Limbu script has been proposed by Ireland in document N2339. The UTC has accepted these characters. The document had been circulated for national body comment the previous WG 2 meeting. The proposed location for the script is 1900 to 194F – matching the roadmap information.

Discussion:

Mr. Takayuki Sato: I have contacted experts in Nepal. The repertoire was OK with them. They would like to check the ordering to be more in alignment with other Indic scripts like Devanagari.

Disposition: WG 2 accepts the Limbu script proposal in document N2339 for inclusion in the next amendment to Part 1. Nepalese feedback through Mr. Takayuki Sato can affect the final code positions. See relevant resolution M41.5 on page 27.

Action item: Mr. Takayuki Sato to seek input from experts in Nepal on the final code positions.

7.6 Dai scripts

Input documents:

N2239 Revised Proposal for encoding Dehong Dai script on BMP of ISO/IEC 10646; China; 2000-08-08
N2242 Revised Proposal for encoding Xinshuang Banna Dai script on BMP of ISO/IEC 10646; China; 2000-08-27
N2371 China contribution on Dai Script; China; 2001-09-16
N2372 Response to China contribution (N2371) on Dai Script; Ireland; 2001-09-24

Neither Irish nor Chinese Dai experts could attend this meeting.

Discussion:

Dr. Asmus Freytag: The maturity level of Dai script is such that we could accept the proposal. The Chinese experts input may differ. By having the early draft in as part of the next amendment, we could solicit feedback towards being able to resolve any differences. UTC has reviewed these and their preference is to go with the Irish proposal in document N2372, and to work with Chinese experts to remove any differences.

Disposition: Accept the contribution on Dai in document N2372 for inclusion in the next amendment to Part 1. See relevant resolution M41.5 on page 27.

Action item: Messrs. Zhang Zhoucai and Asmus Freytag to get confirmation from Chinese experts on agreement to Irish proposal for inclusion in the next amendment.

7.7 Two recycling symbols

Input document:

N2342 Background info on recycling symbols – N2310 Update; Freytag; 2001-04-02

Dr. Asmus Freytag: The Pitch-in Symbol and the Green-Dot symbol were proposed in document N2342, which was circulated for national body review and comment. Mr. Takayuki Sato had brought in a soft drink can from Thailand showing the use of the Pitch-in symbol. Eleven countries in Europe and Thailand seem to use the Green Dot. The Canadian usage is noted in document N2342 itself. These symbols appear to be widely used.

Disposition: WG 2 accepts the Pitch-in Symbol for encoding at 267E and Green Dot at 267F in the BMP, with glyphs as in page 5 from document N2342 for inclusion in the next amendment to Part 1. See relevant resolution M41.5 on page 27.

7.8 Rial currency sign

Input document:

N2373 Riyal currency sign; UTC; 2001-09-24

Document N2373 contains a proposal to add Arabic Currency Sign Rial at FDFC. The name is changed to RIAL SIGN, with glyph as shown in document N2373. This is also part of the Iran's ballot comments on FPDAM-1, and is discussed as part of disposition of comments in section 7.1 on page 16.

Disposition: Accepted to encode the RIAL SIGN at FDFC with glyph from document N2373 in FPDAM-1. See relevant resolution M41.1 on page 20.

7.9 Contributions from DPR Korea

Input documents:

N2374 Proposal to add 70 Symbols; DPRK; 2001-09-03

N2375 Proposal to add 160 Hanja Compatibility characters; DPRK; 2001-09-03

N2376 Proposal to add 18194 Hanja cha to Ext. A 10646-1:2000; DPRK; 2001-09-03

N2390 ROK's comments about DPRK's proposal, N2374; Kyongsok KIM, ROK; 2001-10-13

N2392 A Report of Korean Script ad hoc group meeting on Oct. 15, 2001; Korean script ad hoc group; 2001-10-16

Documents N2374, N2375, N2376 and N2390 were relegated to an ad hoc group on Korean script, which met on Monday, for consideration and reporting back to WG 2. Document N2392 contains the report presented by Professor Kyongsok KIM. The ad hoc group participants were Messrs. Kim Kyongsok (ROK), Mun Hwang Ryong, Park Dong Ki, Yang Song Jin, and Yun Chang Hwa (from DPRK), and Tatsuo Kobayashi (Japan).

Item 1:

Mr. YANG Song Jin was nominated as the co-chair from DPRK to the Korean ad hoc.

Mr. Mike Ksar: WG 2 is happy to see DPRK has appointed the co-chair.

Item 2:

N2376 – adding 6th column to CJK and CJK Ext A. DPRK has offered to prepare a sample output for review by WG 2 and IRG.

Discussion:

- a. Mr. Michel Suignard: We try not to add more columns to the standard. It leads to production difficulties. Even the current format of presenting in five columns is really not useful. From actual use point of view, the source information is what is needed and is taken from the SuperCJK data base. In Part 2 we moved away from the multi-column source documentation to a data file that could be used programmatically. We will be able to represent in a much easier way multiple sources using the data file. We should think about using the layout in the form of data files like in Part 2 instead of adding more columns like in Part 1. With the data files, we will be free of the physical layout issues, and have much more useful information.
- b. Mr. Mike Ksar: We have taken a position in one of our earlier meetings that when Part 1 is republished, we will go to a single column like in Part 2 and supplement the source information as data files.
- c. Professor Kyongsok Kim: I remember we discussed the reduction of five columns to one column. We have not taken any decision on this topic.
- d. Mr. Mike Ksar: We can take a resolution at this meeting that there will be only data files.

- e. Mr. Zhang Zhoucai: National bodies can have their own code charts using their own national charts.
- f. Dr. Umamaheswaran: We could ask IRG to create the Part 1 data files from the super CJK database.
- g. Mr. Mike Ksar: With the direction to take a path similar to Part 2, the tools, the fonts etc. will not be from IRG or WG 2. I do not want ad hoc on Korean to think that WG 2 can give the solutions. Proposal – can we take a resolution on the following:
 - WG 2 decides to change the layout of next edition of Part 1 to a layout similar to Part 2.
 - The source information for CJK will be changed to data tables similar to data tables of Part 2.
 - The source information of Compatibility Ideographs should be similarly presented as data tables.
- h. Mr. Takayuki Sato: Having a single column for Part 1 will involve too much work, and will lose too much information. We should not even have a goal of a single column for Part 1. Adding another column for DPRK is another issue.
- i. Mr. Mike Ksar: We should set our goal for the next publication.
- j. Professor Kyongsok Kim: We cannot make a decision to reduce the number of columns in Part 1 to one at this meeting.
- k. Dr. Umamaheswaran: We cannot freeze the five column layout and not be able to add DPRK column. I suggest we request the IRG to create the mapping table corresponding to Part 1 as it exists today in the format similar to that of Part 2. We add the source information in the form of mapping table from DPRK to that data table.
- l. Mr. YANG Song Jin : For DPRK we have two sources. We have mapping tables for Part 1 and Part 2 – would like to add these to the standard.
- m. Mr. Mike Ksar: The schedules will have to be decided with IRG. We are talking about two sets of amendments – mapping tables, and additional ideographs for Hanja. The schedules for these is to be decided within IRG.
- n. Mr. Zhang Zhoucai: IRG has no decision power as to whether or not to create the mapping tables. We can decide the schedule. IRG has completed the work of mapping tables for both Part 1 and Part 2.
- o. Mr. Michel Suignard: One way of satisfying the part of DPRK request for Part 2 is to add the DPRK Source Reference to the data tables. For Part 1, we use the same text that we have for Part 2, provide the source reference data tables similar to Part 2 as a separate amendment. The amendment could be generated by extracting the information from Super CJK database.
- p. Mr. Mike Ksar: We are talking about Amendment 1 to Part 2 to include the DPRK source information plus any additional characters, and Amendment 2 to Part 1 to include the DPRK source information plus any other additional characters.
- q. Dr. Umamaheswaran: May be we should keep the source information related items as separate amendments as compared to including other characters also.
- r. Mr. Mike Ksar: The ITTF does not want us to create more amendments than necessary. We could bundle these.
- s. Professor Kyongsok Kim: Is the Part 2 source information from DPRK ready?
- t. Mr. YANG Song Jin : Did we not check the DPRK table for Part 1 in Hong Kong IRG meeting?
- u. Mr. Zhang Zhoucai: Part 2 information is ready to go ahead as an amendment to Part 2. Part 1 source information needs final verification. In Hong Kong we focused only on Part 2. The information from DPRK was incorporated in Super CJK, but it has to be formulated in the format needed by the editor.

Disposition:

- a. The IRG is requested to create source information data tables for CJK Part 1 – Add DPRK source information for Part 1 to it. This data table is to be sent to the editor. The editor is instructed to include this data table in the next amendment to Part 1. See relevant resolution M41.5 on page 27.
- b. The editor is to take the source information data tables for Part 2 prepared by IRG and DPRK and include it in the next amendment to Part 2.
- c. IRG members are invited to review and feedback to WG 2, on the impact on reducing the number of columns in the CJK layout in Part 1 to a single column similar to what is in Part 2.

Action items: The IRG convener, the editor and the national bodies have action items from the above disposition.

Item 3.1 -- 47 characters. The ad hoc had no disagreements and recommend their additions.

3 Letter like symbols, 5 Number forms, 9 Miscellaneous symbols, 14 Supplemental Arrows C, 3 Dingbats, 3 Supplemental CJK Compatibility, 1 Enclosed CJK Letters and Months, 7 CJK Compatibility, 2 CJK compatibility forms.

Discussion:

- a. Dr. Asmus Freytag: The strongest issue that may be raised will be on the number forms. Does the DPRK standard have both the slashed forms of fractions as well as the straight dashed forms?
- b. Mr. YANG Song Jin : Yes it has.
Action item: Copies of the pages from DPRK standard will be added to document N2374.
- c. Dr. Asmus Freytag: Regarding the three letter-like symbols – I would be inclined to group them with CJK compatibility. We have to look at miscellaneous symbols for inclusion in other symbol groups. The Weather symbols could also be grouped with others. There could be some discussion on whether some of the symbols could be combined or not – for example, the triangle with caution mark. Some of the symbol proposed code positions may have to be moved to other code positions since they are already used. The proposed location for the Letter-like symbols is an issue.
- d. Dr. Umamaheswaran: There are quite a few symbols proposed in document N2392. I would suggest another ad hoc to crystallize and make recommendation as to what characters, what shapes and what code positions for WG 2 adoption.

Ad hoc group: Michel Suignard, Asmus Freytag and Korean ad hoc members.

Mr. Tatsuo Kobayashi: Document N2375 was NOT included in the ad hoc report in document N2392. Document N2375 has proposed 160 compatibility ideographs. To read the tables - the first entry in the tables is the unified CJK character to which the character maps to. The others are other compatibility characters which also map to the same unified CJK.

Discussion:

- a. Mr. Michel Suignard: It is a question of available encoding space -- do we have 160 positions?
- b. Dr. Asmus Freytag: Free space is available from FA6C to FAFF – 150 positions; and FA2E, FA2F (2 characters) - total 152 positions. We are eight short.
- c. Mr. Takayuki Sato: These compatibility characters come from KP1 – one of the basic DPRK standards. May be the preference is to put these into the BMP.
- d. Mr. Mike Ksar: There is a lot more room in Plane 2.
- e. Dr. Asmus Freytag: Can any unification be done between the different Korean standards for compatibility ideographs?
- f. Professor Kyongsok Kim: DPRK has already unified whatever they can.
- g. Mr. YANG Song Jin : Put 150 in Plane 0 and the remainder in Plane 2.
- h. Mr. Michel Suignard: Several of the compatibility characters map also to KSC sources - to be able to fit into the BMP we may be able to sort of unify between KP and KSC sources? Can we unify a few of these compatibility characters between ROK and DPRK sets?

Ad hoc to take the above question as to whether we can reduce the number from 160 to fit into the 152 positions. A later final count of available positions by the ad hoc was only 151 instead of 152.

See the relevant resolutions M41.7, M41.10 and M41.15 below. See also relevant resolution M41.6 at the end of section 7.12 on page 27.

Relevant resolutions:

M41.7 (DPR of Korea source information in Part 1)

Unanimous

WG 2 invites DPR of Korea to cooperate with and assist the IRG in preparation of the source information for CJK ideographs in the BMP by 2001-12-15.

M41.10 (Additional CJK compatibility characters from DPR of Korea):

Unanimous

WG 2 invites DPR of Korea to examine their proposal for 160 CJK compatibility characters towards reducing the total number to maximum of 151 with the goal of being able to fit them into the available space in the BMP. WG 2 further invites DPR of Korea to input this revised proposal as part of their ballot comments to Amendment 2 of ISO/IEC 10646-1: 2000.

M41.15 (Co-chair of Korean ad hoc):

By Acclamation

WG 2 appoints Mr. YANG Song Jin from the DPR of Korea as a co-chair of the Korean ad hoc group.

7.10 *Cambodian contribution on Khmer script*

Input documents:

- | | |
|---------------|---|
| N2380R | Cambodian official objection to the existing Khmer block in UCS; Cambodian committee for standardisation; 2001-10-08 |
| N2385 | Response to Cambodian official objection to Khmer block (N2380); Maurice Bauhahn and Michael Everson; 2001-10-11 |
| N2394 | Khmer ad-hoc report; Takayuki K. Sato; 2001-10-17 |

Mr. Takayuki Sato presented the ad hoc report in document N2384. There were two contributions – one from Cambodian NB about Khmer block in the standard. Members of ad hoc is listed in N2394. There were two issues – procedural and technical. We discussed the procedural in WG 2. The ad hoc group discussed only the technical issues.

The difference between Cambodian contribution and the existing Khmer block is the model on which the script encoding is based. Sorting issue was another. Sorting issues involve the ordering and also the properties of the character / classification of character. The other set of issues are related to the repertoire - whether a character is required or not. It was impossible to get instant agreement on the virama model versus the subscript model. A character was identified as missing -- its representation was directly related to the model – virama model versus the subscript model.

The original proposers of Khmer block in the current standard are not here at this meeting. The ad hoc spent a lot of time discussing the principles used by WG 2. There was no conclusion in ad hoc on the model or the sorting-related issues.

A prototype demonstration on the implementation based on existing Khmer model in the standard was done.

Concerns of WG 2 would be: Adding another model into the standard would lead to duplicate encoding / spelling and will lead to stability problems on related items such as w3c normalization. A concern is to ensure that Khmer text can all be represented using the existing encoding for Khmer.

Principles used by WG 2 was explained to Cambodian delegation. Annotations could be entertained for characters to clarify its use, relationship etc. Sorting should be following ISO/IEC 14651 - the ordering in ISO/IEC 10646 is not so important.

Recommendations to the Cambodian delegation were:

- a. Keep in mind the WG 2 principles used in developing ISO/IEC 10646
- b. Communicate with Messrs. Michael Everson and Maurice Bauhahn to get clarification on the existing model.
- c. Additional characters could be proposed based on the discussion with the experts. Do not repeat arguments about changing the model or propose characters leading to potential multiple spelling in the standard. Proposal to annotate characters could be made to WG 2.

Discussion:

- a. Mr. Mike Ksar: Thanks to the members of the ad hoc for working hard in discussing the issues. The ad hoc met four times plus a number of informal discussions during this meeting. This ad hoc report is a reflection of input from all participants.
- b. Mr. Sorasak Pan: The Cambodian delegation understands that WG 2's scope is limited to technical issues. The ICT group under the offices of the Prime Minister in Cambodia has been

working on the approach in our proposals for over two years and we feel our approach is the best for Cambodian iCT. Our procedural concerns remain. We will be taking our concerns to higher authorities - we may need to take our concerns if necessary all the way to WTO.

- c. Mr. Mike Ksar: SC 2 is the authority above WG 2, JTC 1 is above SC 2 and ISO/IEC is above JTC 1. WG 2 is not restricted. We are open for all discussion. The ad hoc report should have contained any outstanding concerns. WG 2 is responsible for the ultimate decision on whether new characters go into the standard and other issues. WG 2 has developed the standard, we have a process in place for the orderly development of this standard. It has been implemented by industry and any changes that impact the implementation will be of serious concern. I would suggest the appeal route for you would be through SC 2 and JTC 1. Exchanging messages or notes etc., which could be viewed as potential threats on the personnel involved will not get anywhere.
- d. Mr. Takayuki Sato: I want to emphasize that this ad hoc was created to address the technical issues specifically. If Cambodia wishes, we can ensure that ad hoc report clarifies that procedural issues were not the focus of the ad hoc group
- e. Mr. Mike Ksar: I want to ensure that Cambodia understands the principles adopted by WG 2 and we have re-adopted these during this meeting. We will be asking SC 2 also to adopt and publicize these. In the earlier agenda item we did address the email on the topic.
- f. Mr. Sorasak Pan: We appreciate your open approach to address our concerns. It is not our intent to come here and confront with the group. We want to cooperate with you to see how we can achieve a mutually satisfactory solution for both Cambodia and ISO/IEC 10646 users. I would like to see how SC 2 and JTC 1 feel about the issue. Every time we wanted to open up the procedural related issues you seem to be side tracking.
- g. Mr. Mike Ksar: I want you to understand that we do have procedures in developing the standard. The procedure related discussions could take place here in this meeting also. We do have process, procedures, policies and a method to address concerns. If I had side tracked you I would like to apologize.
- h. Professor Kohji Shibano: There are two items – the WG is the experts group. During the ballot phase, the work of the WG per ISO process can be reviewed and objected to. I will give you the example of the case of ASCII 63 and ASCII 65. ASCII 63 was ISO 646 - over time, US changed and switched over to the ISO standard. There are also examples of Japanese standards etc. When it comes to the topic of Khmer, there are experts on or students of the Khmer script outside of Cambodia also. In the university I work in, every Cambodian researcher has his/her own encoding of the script also. The ISO standard stability therefore is very important. The ISO standard exists. The issue of having another one would raise compatibility issue.
- i. Mr. Sorasak Pan: We do have in Cambodia the majority of Cambodian users. We do recognize that there are Cambodian users outside also. There was no Cambodian participation so far in the IT industry. We would like to participate in the ISO community. We are concerned about users of Cambodian not only within Cambodia but also elsewhere.
- j. Mr. Mike Ksar: We welcome Cambodian participation in our work. There have been experts on different languages in the working group. We do have an ISO standard. I would like to encourage you to use the ISO standard for satisfying your requirements. If there are any missing things we can address these in WG 2. The ad hoc report has identified these. If the ad hoc had come up and stated that existing characters are to be deprecated WG 2 would have rejected that. We do have principles and procedures in place that we follow. You can work with us following these. We welcome you to participate in WG 2, in SC 2 and in ISO. I also welcome you to come to our next meeting in Dublin.
- k. Professor Kohji Shibano: We do have encodings of many scripts. Experts do sometimes identify missing characters and we do entertain these requests. The compatibility and stability of the ISO standards is extremely important. Otherwise there will be no credibility to the ISO standard.
- l. Mr. Sorasak Pan: As far as Cambodian script is concerned please work with us also. We can provide the best solution for problems. We could not participate earlier for various reasons. As to sticking to a particular model it is restrictive. We prefer the Tibetan model.
- m. Dr. Umamaheswaran: The stability of the standard is extremely important - the fact that model A was used and another model B is preferred will only lead to multiple spellings and causes a major instability.

- n. Dr. Asmus Freytag: We would like get into a different world of cooperation and stability, and would like to invite you to participate in technical discussions at the UTC. There is a wealth of expertise on processing different scripts in the world available for interacting and cooperating with you. It will give you exposure also to the implementers of worldwide systems using the standard. I officially invite you to meet with the Unicode Technical Committee.
- o. Mr. Mike Ksar: The UTC meets four times a year. It would give you a good forum for getting a good technical discussion going.
- p. Mr. Sorasak Pan: I welcome your suggestions. Hopefully we will get the resources to be able to participate.

See the relevant resolution M41.14 below.

**Relevant resolution:
M41.14 (Khmer script):**

Unanimous

With reference to document N2380R from Cambodia, WG 2 accepts document N2394 from ad hoc on Khmer. WG 2 invites Cambodia to:

- a. Take note of resolution M41.11 above regarding the policy on acceptable changes to ISO/IEC 10646.
- b. Communicate with other Khmer experts (for example, authors of document N2385) to get clarification on any question on the current Khmer encoding model, repertoire and assignments in the standard.
- c. Propose any additional characters based on the above clarification, following the guidelines in document N2352R (Principles and Procedures)
- d. Propose any explanatory texts towards clarifying the use of encoded Khmer characters.

7.11 Proposal to add 8 Tamil symbols

Input document:

2381R Proposal to add eight Tamil symbols; Uma – expert contribution; 2001-10-10

Dr. Umamaheswaran presented the document N2380R. The eight symbols were show stoppers from being able to meet Tamil Nadu Government (TNG) requirement. Some clarification information have been requested of the Tamil experts and could be input during the PDAM ballot stage. The font (available from the TNG web site) was given to the contributing editor Dr. Asmus Freytag.

Action item: Additional explanation is sought on the genesis of some these symbols; names to be refined based on comments; additional input will be needed from INFITT Tamil experts.

Disposition: Accept proposal N2381R – proposed glyphs from TAMMADUR.TTF font for inclusion in next amendment. See relevant resolution M41.5 on page 27.

7.12 Variation Selectors (From Unicode Liaison Report)

Input document:

2370 Unicode Liaison Report; Unicode; 2001-08-17

We have one variation selector in the standard now - at FE00. UTC has accepted 15 more in FE column. VS has to be known and ignorable by all sorts of algorithms. Prefer to put these in at the earliest even if we do not assign variants. There are up to 256 requested. 240 in the Plane 14 and 16 in the BMP. The US has asked for including the VS2 to VS16 in FPDAM-1 ballot comments.

Disposition:

Accept 15 more in BMP as part of FPDAM-1 in code positions FE01 to FE1F.

These are processed as part of FPDAM-1 ballot comments. See relevant resolution M41.5 below.

Accept 240 more in Plane 14 E0110 TO E01FF.

See also relevant resolution M41.8 on Amendment 1 to Part 2 on page 29.

Relevant resolutions:

M41.5 (Amendment 2 to ISO/IEC 10646-1: 2000)

Against: Republic of Korea;

For: Canada, China, Japan, DPR of Korea, Singapore, Sweden and the USA.

WG 2 accepts the following for inclusion in the BMP:

- a. 70 characters proposed in document N2373 for encoding in Part 1 with revised encodings: 268A and 268B (2 monograms), 268C—268F (4 digrams) and 4DC0—4DFF (64 hexagrams)
- b. 6 phonetic characters proposed in document N2366R at 0221, 0234—0236

- c. Limbu script proposed in document N2339 in the range 1900—194F (following the roadmap) (subject to revision based on any feedback from Nepal)
- d. Tai Le (Dai) script proposed in document N2372 in the range 1950—197F (subject to revision based on any feedback from Dai experts in China)
- e. Two recycling symbols 267E - PITCH-IN and 267F - GREEN DOT symbols from proposal in document N2342
- f. 8 Tamil Symbols at positions 0BF3 to 0BFA proposed in document N2381R (subject to revision based on any feedback from Tamil experts), with TAMIL DITTO SIGN renamed TAMIL AS-ABOVE SIGN
- g. 46 symbols with the names proposed in document N2397 for inclusion in the BMP, with the shapes and code positions as detailed in document N2395
- h. Source-reference data tables for the CJK Ideographs including information for DPR of Korea sources per resolution M41.6 below
- i. Collection identifiers and names corresponding to refined definitions of MES-3A and MES-3B (refer postponed item f under resolution M41.1)
- j. Referencing Unicode Normalization Forms per resolution M41.3 above
- k. Incorporation of policy regarding acceptable changes to ISO/IEC 10646 per resolution M41.11 below.

WG 2 further requests SC 2 to approve a project subdivision for Amendment no. 2 of ISO/IEC 10646-1: 2000, with the scope of including the above-identified characters. Document N2395 contains the code charts and name tables proposed for inclusion in this PDAM-2. The completion schedule is PDAM-2 2002/04; FPDAM-2 2002/10; FDAM-2 2003-02.

WG 2 instructs its editor to prepare the text of PDAM-2 to Part 1 incorporating the above characters and submit it to SC 2 for further processing to meet the above target dates.

M41.6 (CJK Source References for Part 1)

Abstention: Japan;

For: Canada, China, DPR of Korea, Republic of Korea, Singapore, Sweden and the USA.

WG 2 instructs the IRG to prepare source-reference data tables (as .txt formatted files) for the CJK, and Extension A unified ideographs in ISO/IEC 10646-1: 2000 (similar to the data tables in ISO/IEC 10646-2: 2001).

WG 2 further instructs the IRG with assistance of DPR of Korea to incorporate the source-reference data tables (including the KP sources - KPS 9566-97 and KPS 10721-2000 as sources, as identified in document N2376 for the national standards of DPR of Korea).

The above must be completed by 2001-12-15, in order to be able to meet the schedules for Amendment 2 in resolution M41.5 above.

WG 2 further instructs its editor to incorporate the above source-reference information into data tables to be processed as part of the Amendment 2 to ISO/IEC 10646-1: 2000.

M41.9 (Single column layout for CJK in Part 1):

Against: Japan and Republic of Korea;

For: Canada, China, DPR of Korea, Singapore, Sweden and the USA.

Towards being able to deal with additional source information for CJK ideographs and avoid the resulting physical layout complexities in publication, arising from the request for a sixth column from DPR of Korea, WG 2 instructs the IRG and its members to review and provide feedback on the impact of reducing the number of columns in the CJK layout in Part 1 to a single column (similar to what is in Part 2) for the next edition of ISO/IEC 10646-1. The source information specified by the current multiple-column layout could be replaced with equivalent source-reference data tables.

8 ISO/IEC 10646-2

8.1 Osmanya, Shavian, Ugaritic and Aegean scripts

Input documents:

N2297	Legacy cuneiform font implementations and the ICE project; Everson; 2000-11-20
N2327	Revised proposal for encoding Aegean script in the UCS; Deborah Anderson and Michael Everson – expert contribution; 2001-04-03
N2338	Ugaritic Script proposal – Plane 1; Everson; 2001-04-02
N2361R	Revised proposal to encode the Osmanya script in the SMP of the UCS (replaces N1948) Everson 2001-07-14
N2362R	Revised proposal for encoding the Shavian script in the SMP of the UCS; Everson/Jenkins; 2001-07-14
N2370	Unicode Liaison Report; Unicode; 2001-08-17
N2378	Revised final proposal to encode Aegean scripts in the UCS – replaces N2327; Everson/Anderson; 2001-10-01
N2395	Character Code Charts for PDAM 2 to ISO/IEC 10646-1:2000; Asmus Freytag, Contributing Editor; 2001-10-18

Mr. Mike Ksar: These proposals are for the next amendment to Part 2. The documents relevant to Osmanya, Shavian, Ugaritic and Aegean scripts have been posted for national body comments for several months now. Dr. Asmus Freytag presented document N2396, which consolidates the code charts / repertoire for Part 2, and includes characters from documents N2370, N2327, N2378, N2338, N2362R and N2361R -- that have been accepted by the Unicode Consortium, and are proposed to WG2 for processing as Amendment 1 to Part 2. Document N2370 from the Unicode Consortium reports that these scripts have been accepted by the UTC. There is agreement from the scholarly communities on these.

Disposition:

Accept these scripts for inclusion in Part 2 -- process them as part of Amendment 1. See relevant resolution M41.8 on Amendment 1 to Part 2 on page 29.

8.2 Variation selectors (from Unicode Liaison Report)

Input document:

N2370 Unicode Liaison Report; Unicode; 2001-08-17

See discussion under section 7.12 on page 27.

Disposition:

Accept 240 variant selectors in Plane 14 E0110 TO E01FF.

See relevant resolution M41.8 on Amendment 1 to Part 2 on page 29.

Relevant resolution:

M41.8 (Amendment 1 to Part 2)

Unanimous

WG 2 accepts the following for inclusion in the Supplementary Planes:

- a. Linear B Syllabary in code positions 10000—1007D proposed in document N2378
- b. Linear B Ideograms in code positions 10080—100FA proposed in document N2378
- c. Aegean Numbers in code positions 10100—10130 proposed in document N2378
- d. Cypriot Syllabary in positions 10800—1083F proposed in document N2378
- e. Ugaritic characters in positions 10380—1039F proposed in document N2338
- f. Shavian characters in positions 10450—1047F proposed in document N2362R
- g. Osmanya characters in positions 10480—104AD proposed in document N2361R
- h. Variation selectors -17 through 256 in positions E0110—E01FF from document N2370
- i. Update to source-reference data tables for CJK ideographs reflecting national standards from DPR of Korea as sources, which has been prepared with assistance of the IRG.

WG 2 further requests SC 2 to approve a project subdivision for Amendment no. 1 to ISO/IEC 10646-2: 2001, with the scope of including the above-identified characters. Document N2396 contains the code charts and name tables proposed for inclusion in this PDAM-1. The completion schedule is PDAM-1 2002/04; FPDAM-1 2002/10; FDAM-1 2003-02.

WG 2 instructs its editor to prepare the text of PDAM-1 to Part 2 incorporating the above characters and submit it to SC 2 for further processing to meet the above target dates.

9 Architecture issues

9.1 Principles and Procedures

Input document:

N2352R Principles and Procedures - Updated from N2002; Uma; 2001-04-04

Dr. Umamaheswaran briefly outlined the changes to the document from the previous version. The proposal summary form has been updated and the updated form should be used from now on. There are now generic place holders for the form, the road maps and principles and procedures. The new form was used for Tamil Symbols proposal in document N2381R. Future submissions should follow N2352R.

Disposition: Accept N2352R as the Principles and Procedures document. Invite national bodies and liaison organizations to use this document for future submissions.

Relevant resolution:**M41.12 (Principles and Procedures):****Unanimous**

WG 2 accepts the revisions to the principles and procedures in document N2352R. WG 2 further requests SC 2 to adopt this document and the associated updated Proposal Summary Form and roadmap documents made available on the WG 2 web site dkuug.dk/JTC 1/SC 2/WG 2. WG 2 invites national bodies and liaison organizations to use these latest documents.

9.2 N2398 – Referencing Unicode Normalization Forms in ISO/IEC 10646**Input document:**

N2398 **References to normalization; USA (NCITS/L2) and Unicode; 2001-10-18**
N2370 – the Unicode liaison report has shown all these accepted scripts.

Mr. Michel Suignard: In the liaison report, the Unicode Consortium had requested WG 2 to include a reference to UTR on normalization forms in the standard. Document N2398 was prepared during the meeting for consideration at WG 2. Clause 24 in Part 1 – has statements about combining characters leading potentially to alternate coded representations. A combined character may be precomposed or decomposed. The alternate representation causes problems for implementations – for example, when one matches text, one has to step up to matching every alternate forms possible of the text. The normalization allows you to choose one of the forms as the reference form and convert all the others to that reference form. For example, in international domain names one needs unique representation. Another example is the w3c Character Model document – one of the key requirements there is that the strings have to be normalized. The Unicode Technical Report no. 15 on Normalization forms, has all the details. The maximum decomposition forms are NFD and NFKD. Another normalization NFC form uses the Shortest form that is used as the reference form – reference is Unicode 3.1 – which is equivalent to ISO/IEC 10646-1: 2000 and ISO/IEC 10646-2: 2001 together. To introduce normalization form into ISO/IEC 10646 - there are some minimal changes to be done. These are detailed in document N2398.

Discussion:

- a. Professor Kyongsok Kim: We understand UAX 15 has some aspects affecting Hangul characters. We took a look at the document briefly. However, we do have some problems with UAX 15 and we need some more time to study the UAX. We are not confident that the algorithms are OK for Korean.
- b. Mr. Norbert Klein: What does the statement “as soon as possible” mean?
- c. Mr. Mike Ksar: Now – i.e. in the Amendment 1 to ISO/IEC 10646-1.
- d. Dr. Umamaheswaran: The UAX has been stable for a number of years. The proposal is simply asking for a reference to that document from ISO/IEC 10646. If there are problems with UAX, it can be taken up with the Unicode Consortium. Take note that normalization is not being mandated here. It is not specifying any particular form of normalization either. If someone wants to do normalization a reference is provided from within the standard.
- e. Dr. Asmus Freytag: The document has been referenced and used by other organizations such as w3c etc.
- f. Mr. Michel Suignard: The UAX has been defined for implementers to take notice of it. We have to pay attention to what is in UAX.
- g. Mr. Sorasak PAN: This proposal has not been tested against Khmer script. I just want to make sure that at the time when we raised the objection the proposed sentences were not in ISO/IEC 10646.
- h. Mr. Mike Ksar: I propose that we adapt this and include them in the Amendment 1. We take a resolution to include in the standard.
- i. Professor Kohji Shibano: This request was not made as part of any NB ballot comment on the FPDAM-1. It cannot be included in the current FDAM-1 procedurally.

Disposition: Accept to include the reference. See relevant resolution M41.3 below.

Relevant resolution:

M41.3 (Referencing Unicode Normalization Forms):

Against: Republic of Korea;

For: Canada, China, Japan, DPR of Korea, Singapore, Sweden and the USA.

WG 2 acknowledges the usefulness of referencing Unicode Normalization Forms suggested in document N2370 – Liaison report from the Unicode Consortium, and resolves to include appropriate text as proposed in document N2398 to Part 1. WG 2 further resolves to include this text in Amendment 2 to ISO/IEC 10646-1: 2000.

9.3 Allowing FFFF and FFFE in UTF-8

Input document:

N2369 Request to allow FFFF, FFFE in UTF-8 in the text of ISO/IEC 10646 ; Unicode Technical Committee; 2001-09-26

Mr. Michel Suignard: Document N2369 is from the Unicode Consortium, authored by Dr. Mark Davis. We have a discrepancy in UTF-8 as a transformation format and use of character codes that are included or excluded. There are several characters that are marked as Non-Characters - FFFE and FFFF are two of these and are disallowed in UTF-8. This restriction is not uniformly applied to all non-characters. Lifting of this restriction affects only the way UTF-8 algorithm is written. It cleans up the standard.

Disposition: Treat document N2369 as technical amendment; and include in FDAM-1. See relevant resolution M41.2 below.

Relevant resolution:

M41.2 (Inconsistency in UTF-8 definition):

Unanimous

WG 2 acknowledges the inconsistency in definition of UTF-8 in ISO/IEC 10646-1: 2000 reported in document N2369 and instructs its editor to process the correction as part of FDAM-1 on ISO/IEC 10646, by deleting the middle sentence of Note 1 in clause D.4: "Values FFFE and FFFF also do not occur ..". WG 2 further resolves to include this correction in Amendment 1 to ISO/IEC 10646-1: 2000.

9.4 Feedback on TR15285 Cha/Glyph model ad hoc report

Input document:

N2359 Ad hoc discussions on amending the character glyph model (TR 15285-1998); Hart; 2001-04-04

(Carry forward to next meeting)

9.5 Review Roadmaps

Input document:

N2383 Cover letter for all roadmaps; Michael Everson; 2001-10-10

Mr. Mike Ksar: Document N2383 contains the roadmap documents from the ad hoc on roadmaps. The roadmaps are located at www.unicode.org web site. The document contains the roadmaps for planes 0, 1, 2 and 14, as a single document.

Disposition: Accept document N2383 as latest Roadmap replacing all the previous ones.

Action item: Dr. Umamaheswaran is to update the pointers on WG 2 web site in the roadmaps.html file.

10 Publication issues

10.1 Policy on availability of fonts in future publications

Mr. Mike Ksar: We need fonts related to publication. Our deadline for publication cannot be met if fonts are NOT supplied along with the contributions. All contributors / proposers are responsible for ensuring that fonts suitable for publications are made available to the contributing editors.

Dr. Asmus Freytag: I would like WG 2 adopt a policy such as:

We will not publish if the fonts are not available for the following distinct cases:

- Occasionally we get requests to improve the glyphs. If we do not get the fonts, we will live with the existing glyphs.
- Small new repertoires are often requested, inside a larger collection. Fonts are not available for these. The fonts must be made available at the FPDAM stage, and if fonts are not available, the repertoire will be taken out.
- For complete scripts, if the fonts are not made available, we will postpone the inclusion of these in the standard.

Discussion:

- a. Dr. Umamaheswaran: There will be concerns on new scripts which are just getting into IT.
- b. Mr. Zhang Zhoucai: I would like to know the specification for Fonts -- is it only for ISO/IEC 10646 or Unicode? For publication on hardcopy or online versions etc.
- c. Mr. Takayuki Sato: Are there any restrictions / requirements on font formats etc.?
- d. Dr. Asmus Freytag: We have moved from trailing standardizing scripts to leading standardizing - this would have to be reflected in our policies. We cannot be exposed to facts like having a fully approved FPDAM and not being able to publish because the fonts cannot be used. Also, the font must be suitable for publication and must not come with restrictions that it can be used only for publishing ISO/IEC 10646. It should be usable in the areas of synchronizing with other standards such as Unicode also. The concern is in regards to synchronization of publication of Unicode and ISO/IEC 10646. We need to be able to use the fonts for code charts, explanatory material with selected characters, to publish online version etc. Intent is NOT to distribute the font to anyone. The fonts must be unrestricted enough to be able to quote characters in submissions etc. for ISO and Unicode contributions etc. We do have fonts so far for all the characters that are used in the standard. I want to ensure that we can continue maintaining full coverage for all new proposed characters / scripts.
- e. Mr. Zhang Zhoucai: We do have concerns that the differences in fonts for CJK used in Unicode look minor to a casual user. But the differences to an IRG expert it could be viewed as significant. IRG may use some unstable fonts during development. Once the code table is frozen – fonts may end up in being refined, beautified etc. and if the refined fonts are used in publications the glyph shape differences become significant.
- f. Dr. Asmus Freytag: Unicode has to use True Type Format (ttf) fonts for productions. If beautified fonts cause difficulties then there is a concern. As contributing editor, I prefer to use commercially available fonts. Often when we develop code charts we use fonts often under development. In the years after the initial publication of the standard, the commercially applicable fonts beautify the fonts. In Unicode we do use the new fonts to be able to reflect what a user will typically see in practice. Continuing that for CJK, I would like to see that the new fonts do not cause problems. We need help from IRG editors to ensure that there is no discrepancy. We have given Mr. John Jenkins and his staff in Unicode – the task of reviewing each glyph. He has given us the go ahead for Unicode 3.1. I would appreciate input from IRG experts to review the published Unicode charts etc. (also for all other scripts), and inform us of any errors detected.
- g. Mr. Takayuki Sato: When IRG experts have to review the code charts – for example, with Extension B, reviewing of up to 40000 characters is a big task.
- h. Dr. Asmus Freytag: For the first stage, we will use the ttf version of the fonts. This is what is needed. The request to IRG is to make the editor aware of any known errors.
- i. Mr. Zhang Zhoucai: I would suggest if Unicode Consortium publishes something using a different font, please get the IRG editors involved in reviewing these. For people like Mr. John Jenkins, the glyph design is not significant, however to the IRG members the design of glyphs is a very sensitive issue.
- j. Mr. Mike Ksar: It works both ways. The Unicode and IRG editors are to work with each other.

Disposition: Accept in principle. Drafting committee to draft the relevant resolution to be forwarded to SC 2. See the relevant resolution M41.13 below.

Relevant resolution:

M41.13 (Policy regarding fonts for submissions to ISO/IEC 10646):

Against: China, Japan, Republic of Korea;

Abstention: DPR of Korea;

For: Canada, Singapore, Sweden and the USA.

WG 2 adopts the following policy and invites all proposers to take note regarding fonts, towards being able to publish the standard and its amendments on schedule:

- a. The fonts must be made available to the editor in True Type Format. The fonts provided must not be subject to restrictions that will prevent their use in the process of editing or on-line publication of the standard and other related publications such as the Unicode Standard.
- b. For a complete script proposal or addition of small repertoires to existing scripts, the font must be made available prior to the FDAM / FDIS ballot. Otherwise, they will not be included in the FDAM/FDIS.

- c. For refinements of glyphs in the standard the font must be provided to the editor – otherwise the refinement will not be done.

Action Item: The Principles and Procedures – guidelines should be checked for any suitable enhancement regarding the above-adopted policy.

10.2 Referencing ISO/IEC 10646 and Unicode in other publications

Action item: Dr. Umamaheswaran to address how to reference ISO/IEC 10646 in other publications and include in principles and procedures document – for others such as Unicode and w3c etc. to use. www.unicode.org has statements on how to reference the Unicode standard and its versions.

10.3 Expectation from Ireland N2386

Input document:

N2386 Expectations for the 41st meeting of WG 2; Ireland; 2001-10-11

Mr. Mike Ksar: Document N2386 contains what Irish national body expects from this WG 2 meeting. We have dealt with all the items identified. Reference for summary of scripts for Part 1 and Part 2 etc.

11 IRG status and reports

11.1 IRG Resolutions

Input documents:

N2391 (IRG N803) IRG #17 Resolutions, HK Convention and Exhibition Centre, HKSAR; IRG; 2001.06.21

N2393 (SC 2 N3562)(IRG N837)

IRG Rapporteur's Report to WG 2 # 41 and SC 2 #11 in Singapore – October 2001; Zhang Zhoucai, IRG Rapporteur; 2001-10-16

Mr. Zhang Zhoucai: The next IRG meeting is in Macau (new IRG member) in May 2002. Most IRG members have agreed to the date. Unicode and US NB have NOT confirmed due to a conflict with Unicode conference. Mr. John Jenkins is the key person. The IRG should be given the freedom to adjust the dates if needed.

Since 1997 IRG has been working with Ext. B - for about 44 months, we had 2 ad hoc editors, with 20 editors contributing to the work; 40000 Ideographs have been added to the standard, a total of 70205 ideographs have been included. It has exceeded in size the largest Chinese dictionary in the world. The IRG members' effort must be appreciated for this accomplishment. More than 65K ideographs have to be processed for Extension C – total requests from the 6 IRG members. There are 11 members in IRG. There is no voting - only consensus / agreement. DPRK attended twice. Macau SAR is the new member.

Mr. Zhang Zhoucai's term will end with this (Singapore) SC 2 meeting. China supports Mr. Zhang Zhoucai orally for continuation of his rapporteurship.

Disposition:

- a. WG 2 thanks the IRG rapporteur, members and editors for the hard work, particularly for completing Part 2 charts and source reference data tables. See relevant resolution M41.18 on page 36.
- b. WG 2 approves the IRG meeting in May 2002 (exact date to be confirmed later by IRG). See relevant resolution M41.17 on future meetings on page 35.
- c. WG 2 recommends appointment of Mr. Zhang Zhoucai as the IRG rapporteur for another term. See relevant resolution M41.16 below.

Relevant resolution:

M41.16 (IRG Rapporteur):

By Acclamation

WG 2 recommends to SC 2 the appointment of Mr. Zhang Zhoucai as the IRG Rapporteur for another term.

12 Defect reports

12.1 Editorial Defects in ISO/IEC 10646-1: 2000

Input document:

2377 Editorial Defect Report; Canada; 2001-10-01

Disposition: Accepted. See discussion under comments from Canada in section 7.1 on page 16 on disposition of FPDAM-1 ballot comments

12.2 Guideline to correct fatal error on UCS

Input document:

N2382 Guideline to correct fatal error on UCS; Japan – Kobayashi; 2001-10-10

Mr. Tatsuo Kobayashi: Some editorial mistakes are there in Part 1. Once the corrections are done, there will be problems with mapping tables etc. IRG was instructed to propose some solutions. Document N2382 was the result of the homework from IRG to Japan. Some guidelines are outlined. Code position and Shape -- these should not be changed in principle. If a fatal error is discovered, the rectification should be made as early as possible. Short-sighted change could make inconsistency in the standard itself, also can impact implementations. Effort to avoid mapping changes should be done. There are five guidelines provided in document N2382.

Discussion:

Mr. Mike Ksar: These guidelines are in line with what we have in our existing principles and procedures, though not necessarily in exactly the same words. The CJK Glyphs often define the source of the character. The Mapping tables are available through one of our liaison organizations and is available on the Unicode web site. We can put a pointer to the Unicode web site at the WG 2 web site with a warning "use as is". In CJK arena, providing the Source Information is key. It is often the definition of the ideograph. The cross column mapping in CJK becomes an issue.

Action item: Messrs. Umamaheswaran and Tatsuo Kobayashi to look at the Principles and Procedures document and see if the guidelines have to be enhanced re: glyph related guidelines / defect reports etc. based on document N2382. IRG also to examine the Guidelines document N2382 and feedback to WG 2.

13 Liaison reports

13.1 Unicode Consortium

Input document:

N2370 Unicode Liaison Report; Unicode; 2001-08-17

Referenced during other agenda items above.

13.2 CEN TC304

Input document:

N2384 Liaison Report from CEN TC 304; Erkki I. Kolehmainen, co-operation officer from CEN TC 304 to ISO/IEC JTC 1/SC 2; 2001-10-10

Document N2384 contains the decision taken by CEN TC304 regarding naming of MES-3A and 3B collections in FPDAM-1 to ISO/IEC 10646-1: 2000. It was referenced during ballot response for FPDAM-1 (see section 7.1 on page 16).

13.3 W3C

Latest document on w3c character model (available at www.w3corg/TR/charmod) is the most important for attention of WG 2 members.

13.4 SC 22/WG 20

Input document:

N2387 (SC 2 N3557) 2001 Liaison report from SC 22 to SC 2; Mr. Arnold Winkler, Liaison Officer; 2001-10-12

There is a ballot in SC 22 – on whether SC 22 WG 20 should continue its work as in the past or the work items should be transferred.

14 Other business

14.1 Web Site Review

Document register to contain documents listed in the reverse order. The documents will be all linked from the register. Agenda documents be made available to meeting in hardcopy form.

Zipped documents made available on WG 2 web site must contain links to documents inside the zipped file, instead of accessing from remote sites. If there are any missing documents on WG 2 web site, please inform the convener.

When a contribution is to be made, send the document for initial review and request the convener for a document number. The document should be sent with the document number inserted in the document. Please incorporate all attachments into a single soft copy before sending to the convener for posting to the WG 2 web site.

Action item: Messrs. Mike Ksar, Keld Simonsen and contributors to take note of the above.

14.2 Future Meetings

Schedules for new amendments have to be looked at. Meeting 43 is expected to complete the new amendments initiated at this meeting to be able to synchronize with plans for Unicode 4.0. The following resolution captures the approved meeting locations and dates.

M41.17 (Future Meetings):

Unanimous

WG 2 meetings:

- Meeting 42 – 2002-05-20/23 – Dublin, Ireland
(the week following International Unicode Conference in Dublin)
- Meeting 43 – 2002-12-02/05 (to be co-located with SC 2 plenary) Japan

IRG meetings:

- IRG 18 Japan, 2001-12-03/07
- IRG 19 Macau SAR, 2002-05 (to be confirmed)

15 Closing

15.1 Approval of Resolutions of Meeting 41

Output document:

N2404R Resolutions of WG 2 meeting 41, Mike Ksar, 2001-10-18.

Experts from Canada, Cambodia (Guest), China, Japan, DPR of Korea, Republic of Korea, Poland (Guest), Singapore, Sweden, the Unicode Consortium (Liaison), and the USA were present when the resolutions were adopted. The following is some of the discussion during adoption of the resolutions. The final approved resolutions are in document N2404R.

a. M41.1

- Ms. Monica Ståhl Forsberg: Would like to see quick inclusion of replacement MES-3A, MES-3B in Amendment 2.
- Dr. Umamaheswaran: We will add "to amendment 2" instead of "future amendment"; Change Contents and their names. Also in M41.5 – will add MES-3A, MES-3B
- Mr. Alain LaBonté: I have a note from Norway to object against the ballot resolution document, since their ballot comments could not be accommodated. I have a proxy for SC 2 from Norway. I am an expert accredited by Canada and am voting as an Expert.
- Professor Kohji Shibano: In WG, members' consensus is needed; the experts have to be nominated by the countries.
- Mr. Mike Ksar: I do not have any nomination / accreditation from Norway appointing anyone. I cannot accept any voting in WG 2 on behalf of Norway – who is not here.

- For the record - Mr. Alain LaBonté as an individual expert from Canada objected to M41.1 on behalf of Norway.
- b. M41.3
 - Dr. Umamaheswaran: Procedurally referencing the Normalization UTR should be done in Amendment 2. It was not part of any national body comments to FPDAM-1 ballot as was pointed out by Professor Kohji Shibano during the discussion on the subject.
 - Against – Republic of Korea - (referencing of Unicode Normalization Forms).
- c. M41.4
 - Remove reference to M41.3 from this resolution.
 - For the record - Mr. Alain LaBonté as an individual expert from Canada objected to M41.4 on behalf of Norway.
- d. M41.5
 - Prepare SC 2 document incorporating the items in this resolution in the scope for Project subdivisions; for Amendment 2 to Part 1.
 - Against - Rep of Korea (referencing of Unicode Normalization Forms).
- e. M41.6
 - The editor already has CJK compatibility ideograph information. Change deadline from end of Nov to 15 December 2001.
 - Abstain - Japan
- f. M41.8
 - Prepare SC 2 document incorporating the items in this resolution in the scope for Project subdivisions; for Amendment 1 to Part 2.
- g. M41.9
 - Against - Korea and Japan
- h. M41.10
 - Include this in the scope of project sub division for Amendment 1 to Part 2.
- i. M41.11
 - Against - DPR of Korea
 - Abstain - Japan
- j. M41.12
 - The convener thanked Dr. Umamaheswaran for updating the principles and procedures document N2352R.
- k. M41.13
 - Against - Japan, China, Republic of Korea
 - Abstain - DPR of Korea

15.2 Appreciation:

WG 2 adopted the following resolutions of appreciation.

M41.18 (Appreciation on completion of ISO/IEC 10646-2):

By Acclamation

WG 2 thanks its editor, contributing editors and the IRG, for their excellent effort and cooperation in achieving the completion of ISO/IEC 10646-2, which is scheduled for publication by ITTF on 2001-11-01, two months ahead of schedule.

M41.19 (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.

M41.20 (Appreciation):

By Acclamation

WG 2 thanks its host the Information Technology Standards Committee (ITSC) of Singapore, and the sponsors i-DNS net International Pte Ltd., and Sybase (S) Pte Ltd., for hosting the meeting and their kind hospitality, and Ms. Thay Yean Lan for providing excellent secretarial and administrative support.

15.3 Adjournment

The meeting was adjourned at 12:21h.

16 Action Items

16.1 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, M40 and M41 - in progress.	In progress.

16.2 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, M40 and M41 - in progress.	In progress.

16.3 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-39-6	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 ISO/IEC 10646. M40 and M41 - in progress.	In progress.

16.4 Outstanding 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 with the corrections noted in section 3 of document N2403, for Meeting 40)	Status
AI-40-2	Convener - Mr. Mike Ksar	
b	With assistance from Dr. Joe Becker and Mr. Michael Everson to prepare and send a response to the questions on Lao script in document N2333. M41 - In progress.	In progress.
c	To finalize arrangements for Spring 2002 and Fall 2002 WG 2 meetings. M41 - In progress.	In progress.
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:	
a	With the help of contributing editor Dr. Asmus Freytag: d. 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). e. to produce a Summary of Glyph Changes in the charts for information to WG 2. f. to get the proper glyph for the Arabic Tail Fragment from the font provider for Arabic charts M41 - In progress.	In progress.

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353 with the corrections noted in section 3 of document N2403, for Meeting 40)	Status
b	To satisfy the Canadian ballot comment on PDAM-1 to ISO/IEC 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 WG 2 before end of this meeting. M41 - In progress.	In progress.
e	Resolution M40.6 (Correction of Glyph Errors): WG 2 acknowledges several glyph errors in ISO/IEC 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 ISO/IEC 10646-1: 2000 containing the remaining items from the editorial corrigenda, and submit to SC 2 secretariat for further processing as a minor revision. M41 - In progress.	In progress.
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. M41 - In progress.	In progress.
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. M41 - In progress.	In progress.
AI-40-7	Irish national body (Mr. Michael Everson)	
b	Together with Dr. Joe Becker to prepare a response on question on Lao script in document N2333 and send to the convener to respond.	In progress.
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. M41 - In progress.	In progress.
AI-40-9	The US national body (Messrs. Michel Suignard, Joe Becker)	
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). M41 - In progress.	In progress.
b	Dr. Joe Becker - 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. M41 - In progress.	In progress.

Item	Assigned to / action (Reference resolutions in document N2354, and unconfirmed minutes in document N2353 with the corrections noted in section 3 of document N2403, for Meeting 40)	Status
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. M41 - In progress.	In progress.
AI-40-11	Japanese national body (Mr. Takayuki Sato)	
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. M41 - In progress.	In progress.
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. M41 - In progress.	In progress.
b	Is invited to propose annotation text regarding ScanLine characters for inclusion (with reference to discussion on Swedish comment SE6 on PDAM-1). M41 - In progress.	In progress.

16.5 New action items from meeting 41, 2001-10-15/18, Singapore

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
AI-41-1	Meeting Secretary - Dr. V.S. UMAheshwaran	
a	To finalize the document N2404 containing the adopted meeting resolutions and send it to the convener as soon as possible.	
b	To finalize the document N2403 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	
AI-41-2	Convener - Mr. Mike Ksar	
a	To prepare the document register with the list of documents in the reverse order and with hot links to the documents. Agenda document should be made available to meeting in hardcopy form.	
b	To work with the web site administrator to ensure that zipped file for meetings is self contained -- it contain links to documents in a local directory after unzipping, instead of links to remote sites.	
c	To follow up and ensure that SC2 and JTC 1 have adopted the policy per resolution M41.11 (Policy regarding acceptable changes to ISO/IEC 10646)	
d	To follow up and ensure that SC2 and JTC 1 have adopted the policy per resolution M41.13 (Policy regarding fonts for submissions to ISO/IEC10646)	
e	To follow up and ensure adoption by SC2 of resolution M41.12 (Principles and Procedures).	
AI-41-3	Editor of ISO/IEC 10646-1 Mr. Michel Suignard with assistance from contributing editors	
	<i>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:</i>	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
a	<p>Resolution M41.1 (Disposition of FPDAM-1 ballot comments): WG 2 accepts the disposition of comments in document N2389 to ballot responses in documents N2388 (SC 2 N3556) on FPDAM-1 to 10646-1: 2000. The following significant changes are included in document N2389:</p> <ul style="list-style-type: none"> k. Add two new fixed collections corresponding to Unicode versions 3.1 and 3.2 (per Canadian comment). l. Fix the defect in existing fixed collections 301 and 302 per document N2377 (and Canadian comment). m. Add RIAL SIGN at FDFC per document N2375 (and Iranian comment) with appropriate glyph. n. Remove FA45 – CJK compatibility character and move the following code positions up by one (Japan and US comments). o. Add a new normative clause for Bi-directional algorithm with a normative reference to the Unicode Bi-Di algorithm (US comment). p. Postpone addition of collections MES-3A and MES-3B to Amendment 2 to Part 1 pending clarification of their contents and their names (based on several NB comments). q. Based on acceptance of disunification of mathematical and CJK symbols in resolution M40.7, add eight new characters per document N2389 (US comment T.6) r. Accept 15 new Variation Selectors at positions FE01 to FE0F per document N2370 (Unicode liaison report) and document N2389 (US comment T.9). s. Accept new clause on variation selectors and the identified specific variants and sequences for mathematical and Mongolian variant characters (US comment). t. Adjustments to the names of a few characters (see N2389). 	
b	<p>Resolution M41.2 (Inconsistency in UTF-8 definition): WG 2 acknowledges the inconsistency in definition of UTF-8 in ISO/IEC 10646-1: 2000 reported in document N2369 and instructs its editor to process the correction as part of FDAM-1 on 10646, by deleting the middle sentence of Note 1 in clause D.4: "Values FFFE and FFFF also do not occur .. ". WG 2 further resolves to include this correction in Amendment 1 to ISO/IEC 10646-1: 2000.</p>	
c	<p>Resolution M41.4 (Progression of FDAM-1): WG 2 instructs its editor to prepare and submit the FDAM-1 text along with the disposition of comments in document N2389, and reflecting resolutions M41.1 and M41.2 above, to the SC 2 secretariat for further processing with unchanged target completion dates -- FDAM 2002-02, AM 2002-06.</p>	
d	<p>Resolution M41.6 (CJK Source References for Part 1) WG 2 instructs the IRG to prepare source-reference data tables (as .txt formatted files) for the CJK, and Extension A unified ideographs in ISO/IEC 10646-1: 2000 (similar to the data tables in ISO/IEC 10646-2: 2001).</p> <p>WG 2 further instructs the IRG with assistance of DPR of Korea to incorporate the source-reference data tables (including the KP sources - KPS 9566-97 and KPS 10721-2000 as sources, as identified in document N2376 for the national standards of DPR of Korea).</p> <p>The above must be completed by 2001-12-15, in order to be able to meet the schedules for Amendment 2 in resolution M41.5 above.</p> <p>WG 2 further instructs its editor to incorporate the above source-reference information into data tables to be processed as part of the Amendment 2 to ISO/IEC 10646-1: 2000.</p>	
e	<p>Resolution M41.5 (Amendment 2 to 10646-1: 2000) WG 2 accepts the following for inclusion in the BMP:</p> <ul style="list-style-type: none"> l. 70 characters proposed in document N2373 for encoding in Part 1 with 	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
	<p>revised encodings: 268A and 268B (2 monograms), 268C—268F (4 digrams) and 4DC0—4DFF (64 hexagrams)</p> <p>m. 6 phonetic characters proposed in document N2366R at 0221, 0234—0236</p> <p>n. Limbu script proposed in document N2339 in the range 1900—194F (following the roadmap) (subject to revision based on any feedback from Nepal)</p> <p>o. Tai Le (Dai) script proposed in document N2372 in the range 1950—197F (subject to revision based on any feedback from Dai experts in China)</p> <p>p. Two recycling symbols 267E - PITCH-IN and 267F - GREEN DOT symbols from proposal in document N2342</p> <p>q. 8 Tamil Symbols at positions 0BF3 to 0BFA proposed in document N2381R (subject to revision based on any feedback from Tamil experts), with TAMIL DITTO SIGN renamed TAMIL AS-ABOVE SIGN</p> <p>r. 46 symbols with the names proposed in document N2397 for inclusion in the BMP, with the shapes and code positions as detailed in document N2395</p> <p>s. Source-reference data tables for the CJK Ideographs including information for DPR of Korea sources per resolution M41.6 below</p> <p>t. Collection identifiers and names corresponding to refined definitions of MES-3A and MES-3B (refer postponed item f under resolution M41.1)</p> <p>u. Referencing Unicode Normalization Forms per resolution M41.3 above</p> <p>v. Incorporation of policy regarding acceptable changes to ISO/IEC 10646 per resolution M41.11 below.</p> <p>WG 2 further requests SC 2 to approve a project subdivision for Amendment no. 2 of ISO/IEC 10646-1: 2000, with the scope of including the above-identified characters. Document N2395 contains the code charts and name tables proposed for inclusion in this PDAM-2. The completion schedule is PDAM-2 2002/04; FPDAM-2 2002/10; FDAM-2 2003-02.</p> <p>WG 2 instructs its editor to prepare the text of PDAM-2 to Part 1 incorporating the above characters and submit it to SC 2 for further processing to meet the above target dates.</p>	
f	<p>Resolution M41.11 (Policy regarding acceptable changes to 10646):</p> <p>WG 2 requests SC 2 adopt the following policy regarding acceptable changes to ISO/IEC 10646 and convey the same to JTC 1 for information and to SC 2 membership to take note:</p> <p>a. Once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters.</p> <p>b. The arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard.</p> <p>c. 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 , for example to establish correspondences with characters in other standards.</p> <p>d. Any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation.</p> <p>WG 2 further instructs its editor to prepare suitable text to reflect the above policy and incorporate it into Amendment 2 of Part 1.</p>	
AI-41-4	Editor of ISO/IEC 10646-2: Mr. Michel Suignard with assistance from contributing editors	
	<i>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:</i>	
a	<p>Resolution M41.8 (Amendment 1 to Part 2):</p> <p>WG 2 accepts the following for inclusion in the Supplementary Planes:</p>	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
	<p>j. Linear B Syllabary in code positions 10000—1007D proposed in document N2378</p> <p>k. Linear B Ideograms in code positions 10080—100FA proposed in document N2378</p> <p>l. Aegean Numbers in code positions 10100—10130 proposed in document N2378</p> <p>m. Cypriot Syllabary in positions 10800—1083F proposed in document N2378</p> <p>n. Ugaritic characters in positions 10380—1039F proposed in document N2338</p> <p>o. Shavian characters in positions 10450—1047F proposed in document N2362R</p> <p>p. Osmanya characters in positions 10480—104AD proposed in document N2361R</p> <p>q. Variation selectors -17 through 256 in positions E0110—E01FF from document N2370</p> <p>r. Update to source-reference data tables for CJK ideographs reflecting national standards from DPR of Korea as sources, which has been prepared with assistance of the IRG.</p> <p>WG 2 further requests SC 2 to approve a project subdivision for Amendment no. 1 to ISO/IEC 10646-2: 2001, with the scope of including the above-identified characters. Document N2396 contains the code charts and name tables proposed for inclusion in this PDAM-1. The completion schedule is PDAM-1 2002/04; FPDAM-1 2002/10; FDAM-1 2003-02.</p> <p>WG 2 instructs its editor to prepare the text of PDAM-1 to Part 2 incorporating the above characters and submit it to SC 2 for further processing to meet the above target dates.</p>	
AI-41-5	Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)	
a	To check for any suitable enhancement needed regarding resolution M41.13 (Policy regarding fonts for submissions to 10646).	
b	To take note of document N2383 - updated roadmap documents on the Unicode web site and update the pointers in principles and procedures / wg2 web site accordingly.	
c	To address how to reference ISO/IEC 10646 in other publications and include in principles and procedures document.	
d	To look at the Principles and Procedures document and see if the guidelines have to be enhanced re: glyph related guidelines / defect reports etc. based on document N2382 (along with Mr. Tatsuo Kobayashi, Japan).	
AI-41-6	IRG Rapporteur (Mr. Zhang Zhoucai)	
a	<p>To act on resolution M41.6 (CJK Source References for Part 1): WG 2 instructs the IRG to prepare source-reference data tables (as .txt formatted files) for the CJK, and Extension A unified ideographs in ISO/IEC 10646-1: 2000 (similar to the data tables in ISO/IEC 10646-2: 2001).</p> <p>WG 2 further instructs the IRG with assistance of DPR of Korea to incorporate the source-reference data tables (including the KP sources - KPS 9566-97 and KPS 10721-2000 as sources, as identified in document N2376 for the national standards of DPR of Korea).</p> <p>The above must be completed by 2001-12-15, in order to be able to meet the schedules for Amendment 2 in resolution M41.5 above.</p>	
b	To act on resolution M41.9 (Single column layout for CJK in Part 1): Towards being able to deal with additional source information for CJK ideographs and avoid the resulting physical layout complexities in publication, arising from the request for a sixth column from DPR of Korea, WG 2 instructs the IRG and its members to review and provide feedback on the impact of reducing the number of columns in the CJK layout in Part 1 to a single column (similar to what is in Part 2) for the next edition of ISO/IEC 10646-1. The source information specified by the current multiple-column layout could be replaced with equivalent source-reference data tables.	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
c	To examine the guidelines document N2382 (from Japan - Mr. Tatsuo Kobayashi) and provide feedback to WG 2.	
AI-41-7	The Cambodian national body (Mr. Sorosak Pan)	
a	Is invited to take note of resolution M41.14 (Khmer script): With reference to document N2380R from Cambodia, WG 2 accepts document N2394 from ad hoc on Khmer. WG 2 invites Cambodia to: <ul style="list-style-type: none"> a. Take note of resolution M41.11 above regarding the policy on acceptable changes to ISO/IEC 10646. b. Communicate with other Khmer experts (for example, authors of document N2385) to get clarification on any question on the current Khmer encoding model, repertoire and assignments in the standard. c. Propose any additional characters based on the above clarification, following the guidelines in document N2352R (Principles and Procedures) d. Propose any explanatory texts towards clarifying the use of encoded Khmer characters. 	
AI-41-8	Greek national body (Mr. Evangelos Melagrakis)	
a	Is invited to submit a corrigendum request for changing the names of Table 9 to Basic Greek and Table 10 to Greek Symbols and Coptic, that was sent in as ballot comments to FPDAM-1 to ISO/IEC 10646-1: 2000.	
AI-41-9	Chinese national body (Mr. Zhang Zhoucai)	
a	Is invited to confirm with the Chinese Dai experts, working with the contributing editor Dr. Asmus Freytag, on the acceptability of Irish proposal for the Dai scripts in document N2372.	
AI-41-10	The US national body (Mr. Michel Suignard)	
a	Is invited to assist the editor in completing the list of Mongolian variants for FPDAM-1 text (ballot comments on FPDAM-1 to ISO/IEC 10646-1: 2000).	
AI-41-11	The Irish and Finnish national bodies (Messrs. Michael Everson and Erkki Kolehmainen)	
a	Are invited to propose replacements for MES-3 collections with agreement from affected parties, especially the European national bodies who had expressed concern over these collections, for consideration for inclusion in the next amendment to Part 1.	
AI-41-12	Japanese national body (Mr. Takayuki Sato, Mr. Tatsuo Kobayashi)	
a	Is invited to look at the Principles and Procedures document and see if the guidelines have to be enhanced re: glyph related guidelines / defect reports etc. based on document N2382 (along with Dr. Umamaheswaran).	
b	To seek input from experts in Nepal on the final code positions for the Limbu script.	
AI-41-12	DPRK national body (Mr. YANG Song Jin)	
a	Is invited (per resolution M41.10 -Additional CJK compatibility characters from DPR of Korea) to examine their proposal for 160 CJK compatibility characters towards reducing the total number to maximum of 151 with the goal of being able to fit them into the available space in the BMP. WG 2 further invites DPR of Korea to input this revised proposal as part of their ballot comments to Amendment 2 of ISO/IEC 10646-1: 2000.	
b	Is invited (per resolution M41.7 - DPR of Korea source information in Part 1) to co-operate with and assist the IRG in preparation of the source information for CJK ideographs in the BMP by 2001-12-15.	
c	To revise document N2374 -- add copies of pages from DPRK standard as exhibits for the different fractions and other proposed symbols.	
AI-41-12	Canadian national body (Dr. V.S. Umamaheswaran)	
a	To seek additional explanation on of some the proposed Tamil symbols from INFITT Tamil experts.	
AI-41-13	All national bodies and liaison organizations	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
a	<p>To take note of resolution M41.11 (Policy regarding acceptable changes to 10646): WG 2 requests SC 2 adopt the following policy regarding acceptable changes to ISO/IEC 10646 and convey the same to JTC 1 for information and to SC 2 membership to take note:</p> <ul style="list-style-type: none"> a. Once a character is assigned a code position in the standard it cannot be reassigned in the interest of ensuring interoperability of standardized characters. b. The arrangement of the characters in the standard is fixed; sorting and collation of the characters is outside the scope of the standard. c. 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 , for example to establish correspondences with characters in other standards. d. Any inconsistencies in names could be adjusted in other language versions either when the standard is translated or in supplementary external documentation. <p>WG 2 further instructs its editor to prepare suitable text to reflect the above policy and incorporate it into Amendment 2 of Part 1.</p>	
b	<p>To take note of resolution M41.12 (Principles and Procedures): WG 2 accepts the revisions to the principles and procedures in document N2352R. WG 2 further requests SC 2 to adopt this document and the associated updated Proposal Summary Form and roadmap documents made available on the WG 2 web site dkuug.dk/JTC 1/SC 2/WG 2. WG 2 invites national bodies and liaison organizations to use these latest documents.</p>	
c	<p>To take note of resolution M41.13 (Policy regarding fonts for submissions to ISO/IEC 10646): WG 2 adopts the following policy and invites all proposers to take note regarding fonts, towards being able to publish the standard and its amendments on schedule:</p> <ul style="list-style-type: none"> a. The fonts must be made available to the editor in True Type Format. The fonts provided must not be subject to restrictions that will prevent their use in the process of editing or on-line publication of the standard and other related publications such as the Unicode Standard. b. For a complete script proposal or addition of small repertoires to existing scripts, the font must be made available prior to the FDAM / FDIS ballot. Otherwise, they will not be included in the FDAM/FDIS. c. For refinements of glyphs in the standard the font must be provided to the editor – otherwise the refinement will not be done. 	
e	<p>To take note of and provide feedback on resolution M41.9 (Single column layout for CJK in Part 1): Towards being able to deal with additional source information for CJK ideographs and avoid the resulting physical layout complexities in publication, arising from the request for a sixth column from DPR of Korea, WG 2 instructs the IRG and its members to review and provide feedback on the impact of reducing the number of columns in the CJK layout in Part 1 to a single column (similar to what is in Part 2) for the next edition of ISO/IEC 10646-1. The source information specified by the current multiple-column layout could be replaced with equivalent source-reference data tables.</p>	
f	<p>To take note - When a contribution is ready for submission to WG2, send the document for initial review and request the convener for a document number. The document should be sent to the convener for posting to WG2 site with the document number inserted and incorporating all attachments into a single soft copy or file.</p>	
g	<p>To inform the convener of any missing documents from the WG2 web site.</p>	

Item	Assigned to / action (Reference resolutions in document N2404R, and unconfirmed minutes in document N2403 - this document you are reading - for Meeting 41)	Status
h	<p>To take note of resolution M41.17 (Future Meetings):</p> <p>WG 2 meetings:</p> <ul style="list-style-type: none"> • Meeting 42 – 2002-05-20/23 – Dublin, Ireland • (the week following International Unicode Conference in Dublin) • Meeting 43 – 2002-12-02/05 (to be co-located with SC 2 plenary) Japan <p>IRG meetings:</p> <ul style="list-style-type: none"> • IRG 18 Japan, 2001-12-03/07 • IRG 19 Macau SAR, 2002-05 (to be confirmed) 	