



ISO/IEC JTC 1/SC 2/WG 2

Universal Multiple-Octet Coded Character Set (UCS) - ISO/IEC 10646

Secretariat: ANSI

**DOC TYPE:** Meeting Minutes

**TITLE:** Unconfirmed Minutes of WG 2 meeting 37, Copenhagen, Denmark; 1999-09-13--16

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

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

**STATUS:** SC 2/WG 2 participants are requested to review the attached unconfirmed minutes, act on appropriate noted action items, and to send any comments or corrections to the convener as soon as possible but no later than 2000-02-15.

**ACTION ID:** ACT

**DUE DATE:** 2000-02-15

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

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**ISO**  
**International Organization for Standardization**  
**Organisation Internationale de Normalisation**

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

**ISO/IEC JTC 1/SC 2/WG 2 N2103**

**Date: 2000-01-05**

<b>Title:</b>	Unconfirmed Minutes of WG 2 meeting 37, Copenhagen, Denmark; 1999-09-13--16
<b>Source:</b>	V.S. Umamaheswaran, Meeting Secretary, Mike Ksar, Convener
<b>Action:</b>	WG 2 members and Liaison organizations
<b>Distribution:</b>	ISO/IEC JTC 1/SC 2/WG 2 members and Liaison organizations

**1 Opening and roll call**

Mr. Mike Ksar opened the meeting opened at 09:25h. Mr. Keld Drube representing the host, Danish Standards, extended a warm welcome to the delegates to Copenhagen. The meeting facility, provided by DKUUG, is located in Symbion Scientific Park. The name 'Symbion' represents the symbiosis of different organizations located in the park. Mr. Sven Thygesen of Kommunedata explained the meeting logistics. A visit to Tivoli is planned for Tuesday or Thursday. A poster depicting a Christian Andersen fairy tale, with several Danish letters in the background, was distributed to each delegate at the end of the meeting. The local area network and internet connection facilities were provided by DKUUG.

**1.1 Roll call**

**Input document:**

**N2051 WG 2 distribution list; Ksar, 1999-09-13**

Document N2051 containing the latest distribution list for WG 2 documents was circulated, and the delegates were requested to mark any corrections, and to assist the convener in removing names from the distribution list. The following 35 (thirty five) delegates representing 14 (fourteen) national bodies, 3 (three) liaison organizations and 1 (one) guest attended the meeting.

<b>Name</b>	<b>Representing</b>	<b>Affiliation</b>
Alain La Bonté	Canada	Direction du soutien au déploiement de l'infrastructure gouvernementale, Gouvernement du Québec
V. S. (Uma)	Canada,	IBM Canada
Umamaheswaran	Recording Secretary	
Chen Zhuang	China	Chinese Electronic Standardization Institute
Lobsang Tokme	China	Interpretation Bureau of Tibet Autonomous Region
Quejingzhabu	China	Inner Mongolia University
Shama Layi	China	Southwest National Institute, Nansidian
Woshur Slamu	China	Xinjiang University
Yasin Imin	China	National Language and Character Committee Xinjiang Uygur Autonomous Region
Zhang Zhoucai	China, IRG Rapporteur	CCID
Michael Y. Ksar	Convener	Hewlett-Packard Company
Bent Barnholdt	Denmark	Independent
Birger Jacobsen	Denmark	BITS
Keld Drube	Denmark	Dansk Standard
Myanne Olesen	Denmark	DKUUG
Sven Thygesen	Denmark	Kommunedata
Erkki Kolehmainen	Finland, CEN/TC 304	Tieke
Marc Küster	Germany	Universität Tübingen

<b>Name</b>	<b>Representing</b>	<b>Affiliation</b>
Paul Dettmer	Germany	Independent
Vladas Tumasonis	Guest - Lithuania	Vilnius University
Michael Everson	Ireland	Everson Gunn Teoranta
Satoshi Yamamoto	Japan	Hitachi, Ltd.
Shun Ishizaki	Japan	Keio University
Takayuki Sato	Japan	Independent
Johan van Wingen	Netherlands	Independent
Keld Simonsen	Norway	Rationel Almen Planlægning
Elżbieta Broma- Wrzesień	Poland	Telekomunikacja Polska S.A.
Alexandrina Stătescu	Romania	Romtelecom
Mihaela Anghelescu	Romania	Romanian Standards Association
Karl Ivar Larsson	Sweden	Independent Consultant
Asmus Freytag	The Unicode Consortium, AFII	ASMUS, Inc.
Bruce Paterson	U.K.; Editor Part 1	Independent
Arnold Winkler	U.S.A.	Unisys Corporation
Hideki Hiura	U.S.A.	SunSoft, Inc.
Michel Suignard	U.S.A.; Editor Part 2	Microsoft

## 2 Approval of the agenda

Input document:

**N2072 M37 Tentative Agenda; Ksar; 1999-08-30**

Mr. Mike Ksar briefly introduced the main items on the agenda in document N2072. Copies of several documents that were on the agenda were made available during the meeting prior to discussion on the specific agenda item. The priority for this meeting will be to focus on completion of all the items related to the next edition of 10646-1 - to finish the work related to amendments up to Amendment 31. This will permit the editor to go ahead and prepare the final camera ready copy. All items for future inclusion in 10646-1 will be lower priority for this meeting. The second goal will be to solidify the content of WD 10646-2. Part 2 editor, Mr. Michel Suignard is planning to leave Wednesday AM. The main business of this meeting must be completed by end of Wednesday. The resolutions will be discussed on Thursday morning. We may not be able to cover all the agenda items, or discuss new documents that are brought forward during this meeting. The agenda was adopted with changes, some of which are listed below.

### Changes to preliminary agenda:

- Item 5 - correct the subsection numbering to 5.1, 5.2, etc.
- Item 6 - most of the items are for Information purposes
- Items 7, and 8 will be discussed when Mr. Bruce Paterson is here
- Add 8.7 - Philippines script - document N1755
- Add 8.8 - documents on new JIS characters - primarily for information
- Add 8.9 - APL character repertoire
- Add 8.10 - Lithuanian - document N2075R
- Item 9 - 10646-2 discussions will be held on Tuesday
- An item on Musical symbols was added (but there was no document to discuss)
- An item on a new Chinese document was added (there was no document to discuss)
- An item on Meriotic - documents N1638 and N2098 was added; there was no discussion
- Add 10.3 - Han B
- Item 11 - IRG - would be splitting the discussion into two items. One will be Part 1 and the other will be Part 2 related.

The following documents - some of which were given agenda item numbers during the agenda review -- that were either for information only or never got discussed, do not appear elsewhere in these minutes. However, some action items to review some of these documents have been added.

- N1582 - 3rd revision for proposal of repertoire of Greek Byzantine Music Notation System, ELOT, 1997-06-11;
- N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2, Everson, 1997-09-18
- N1997 - Response to Everson on Cham N1960, Vietnam, 1999-03-08
- N2028 S - Editorial Corrigena 10646-1, cumulative list 4, issue 1, Paterson, 1999-05-20

- N2029 - Repertoire additions for ISO/IEC 10646-1 - Cumulative List No.9 – replaces N 1936, Paterson, 1999-05-29;
- N2032 - Electro-Technical Symbols – mapping between IEC 617/P1289 and ISO 10646 – Revision of N1818, Hugh McG Ross, UK. 1999-02-25. (This document has also been sent to IEC/TC 3/SC 3B for information.)
- N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson, 1999-07-20. (This document is an update of UTR 3 which was published in 1993. Some of the scripts from UTR 3 that have not been yet introduced into WG 2 are introduced.)
- N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters, Everson, 1997-07-24. (There are a number of characters used by Egyptologists for their work. These are introduced in document N2043 for inclusion in 10646.)
- N2044 - On encoding New Tai Lue as proposed by China, Everson, 1997-08-13 (This document has information supplied from Summer institute of Linguistics. The TAI (without the H in it) script is related to THAI script but is different.)
- N2058 - Latin/Thai – 8-bit character set – FCD Latin 11, SC 2 N3333; WG 3; 1999-06-22.
- N2059 - Summary of Voting Replies – 8-bit 8859-16 – Latin 10 – (ala 8859-2 for Romania); WG 3; 1999-07-05;
- N2098 - Report on the proposal for a Meroitic sign, DIN, Germany, 1999-09-13. (This document contains comments from Dr. Pawel Wolf on Meriotic characters in document N1638. The proposal raises the question whether this needs to be encoding at all.)

Mr. Mike Ksar alerted the delegates to item 10.1-- document N2025 has three parts - cover sheet, part 1 and part 2. The German contribution covered other scripts besides Heiroglyphs. Germany also has updates to document N2025 part 2 (see N2097 under 10.4 that was distributed later during the meeting).

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

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### 3 Approval of minutes of meeting 36

**Input document:**

**N2003 Draft minutes of meeting 36; Uma; 1999-08-03**

Dr. V.S. Umamaheswaran introduced document N2003 containing the minutes of WG 2 meeting 36. Mr. Mike Ksar expressed his appreciation to Dr. Umamaheswaran for the preparation of the minutes. There were editorial errors in the action items list -- section 14 of document N2003. The minutes were adopted with the editorial changes.

#### 4 Review action items from previous meeting

Input document:

N2003 Draft minutes of meeting 36; Uma; 199908-03

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

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

#### Outstanding action items from meeting 33, Heraklion, Crete, Greece

Item	Assigned to / action (Reference Meeting 33 Resolutions in document N1604 and Unconfirmed Meeting 33 minutes in document N1603 – with the corrections noted in section 3 of document N1703).	Status
AI-33-8	<b>Korean national body (Professor Kyongsok Kim)</b>	
b	is invited to submit a proposal summary form to cover requests for Gugyeol characters (original requests in document N936) with possible updates to these documents and submit to WG 2 for consideration at meeting 34. M34, M35 and M36: In progress.	<b>M37:Dropped</b>

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

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
AI-34-2	<b>Convener - Mr. Mike Ksar</b>	
f	to send document N1670 as a liaison document to IETF from SC 2/WG 2. WG 2 is concerned because the initial MLSF proposal is in conflict with UTF-8. M35 and M36 – in progress.	<b>M37: Completed; see document N2083</b>
AI-34-4	<b>Editor of 10646-2: Mr. Michel Suignard</b>	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	RESOLUTION M34.1 (DTR 15285 Character Glyph Model): ... .. WG 2 further instructs its project editors for ISO/IEC 10646 Part 1 and Part 2 to add TR 15285 as a reference to the next edition of ISO/IEC 10646-1 and to the WD of ISO/IEC 10646-2. M36 – in progress.	<b>M37:In progress</b>
b	RESOLUTION M34.14 (Characters for inclusion in WD of Part 2): WG 2 accepts the following: Plane 14 Characters for Language Tags according to document N1670. ETRUSCAN script in the range Plane 1 0200 to 022F, in accordance with document N1580. GOTHIC script in the range Plane 1 0230 to 024F, in accordance with document N1581, with the last three characters in that document deleted from the repertoire. WESTERN MUSICAL SYMBOLS in the range Plane 1 D100 to D1FF, starting at D103, in accordance with document N1693. and instructs its project editor to include the above accepted characters in the working draft of 10646-2. M35 and M36 – in progress.	<b>M37: In progress</b>
c	to update the working draft in document 1717 - accommodating the various comments during meeting 34, and to draft some text for inclusion in Part 1 referring to the architectural statements that need to be included in Part 1. M35 and M36 – in progress.	<b>M37: In progress</b>

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
d	RESOLUTION M34.18 (Collection Identifiers in Parts 1 and 2): WG 2 accepts the recommendations of the ad hoc on collection identifiers in document N1726, and instructs the ad hoc on Principles and Procedures to include these in the Principles and Procedures document (N1502R). WG 2 further instructs its project editors to take note of these recommendations for adoption in Parts 1 and Part 2. M35 and M36 – in progress.	M37: In progress
<b>AI-34-10</b>	<b>The Unicode Consortium (Dr. Asmus Freytag, and some US experts)</b>	
c	is requested to work with the American Mathematical Society, examine the proposal in document N1716 - Math Symbols, refine the proposals and draft (jointly with the US national body) an updated document for consideration at the next meeting. M35 and M36 – in progress.	M37: Completed; see document N2086
<b>AI-34-13</b>	<b>Irish national body (Mr. Michael Everson)</b>	
h	is invited to create a "Defect Report" on changing the block name IPA Extension to IPA Latin Extension. M35 and M36 – in progress.	M37: In progress
<b>AI-34-14</b>	<b>US national body (Dr. Ken Whistler and other experts)</b>	
c	is requested to work with the American mathematical society, examine the proposal in document N1716 - Math Symbols, refine the proposals and draft (jointly with the Unicode Consortium) an updated document for consideration at the next meeting. M35 and M36 – in progress.	M37:Completed; see document N2086

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

Item	Assigned to / action (Reference Meeting 35 Resolutions in document N1904R and Unconfirmed Meeting 35 minutes in document N1903 - with the corrections noted in section 3 of document N2003).	Status
<b>AI-35-2</b>	<b>Convener - Mr. Mike Ksar</b>	
d	to contact ITTF regarding the possible holding back of the publication of FDAM-17 on CJK Extension A, in view of the 2nd edition coming along soon. M36 – in progress – new deadline middle of April 1999. M35 and M36 – in progress.	M37:Completed
h	to check with Korea if the explanatory note to Clause 24.1 regarding two Bangjeom characters proposed in document N1738 meet their requirements. M35 and M36 – in progress.	M37:Dropped
i	to check with Korea for their position on the proposal to replace the Korean Hangul long names in Amendment 5 with an equivalent algorithm which generates these names (see defect report in document N1806). M35 and M36 – in progress.	M37:Completed; see document N2077
<b>AI-35-4</b>	<b>Editor of 10646-2: Mr. Michel Suignard</b>	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
c	IRG to review the schedule for CJK Extension B with editor of Part 2 -- should be synchronized with Part 2 plan in SC 2 Program of work. M36 – in progress.	M37:Completed; see document N2110
<b>AI-35-5</b>	<b>IRG (Mr. Zhang Zhoucai, Rapporteur)</b>	
c	IRG to review the schedule for CJK Extension B with editor of Part 2 -- should be synchronized with Part 2 plan in SC 2 Program of work. M36 – in progress.	M37:Completed; see document N2110
<b>AI-35-12</b>	<b>Japanese national body (Mr. Takayuki Sato) – transferred from UK</b>	
a	Mr. John Clews is to do some research to get the contact names, mailing address, fax etc. in the Maldivian Ministry of Education and get the information to the convener. M36 – transferred to Mr. Takayuki Sato.	M37:Dropped
<b>AI-35-10</b>	<b>UK national body (Mr. John Clews, Mr. Hugh Ross)</b>	



Item	Assigned to / action (Reference Meeting 35 Resolutions in document N1904R and Unconfirmed Meeting 35 minutes in document N1903 - with the corrections noted in section 3 of document N2003).	Status
b	Mr. Hugh Ross is encouraged to approach IEC to ask them to include similar mapping information (as in his contribution document N1818 on mapping of Electro technical symbols) in relevant IEC standards. M36 – in progress.	M37: Completed; N2032
<b>AI-35-11</b>	<b>Irish national body (Mr. Michael Everson)</b>	
a	Mr. Michael Everson is invited to take the comments at this meeting (M35) and prepare a revised contribution on Old Hungarian in document N1758. M36 – in progress.	M37: In progress
<b>AI-35-12</b>	<b>Japanese national body (Mr. Takayuki Sato)</b>	
c	to provide more information on the usage of and the need for "ng" and the need of "ng" in document N1859, taking into account the comments made at this meeting. M36 – in progress.	M37:Completed; N2039
d	to provide more information on the Peso currency sign proposed in document N1858. M36 – in progress.	M37:Completed; N2040
e	to provide additional information on Old Mongolian (document N1855) and its relationship to the Mongolian script proposal in the BMP. M36 – in progress.	M37: In progress
<b>AI-35-13</b>	<b>The Unicode Consortium (Dr. Asmus Freytag)</b>	
a	to provide more information on use of the three proposed symbols -- SQUARE FOOT, SQUARE INCH, and PROPERTY LINE in document N1887. M36 – in progress.	M37: In progress
<b>AI-35-16</b>	<b>All national bodies and liaison organizations</b>	
j	to review the scripts that they have contributed in the different amendments 10 through 27 to the standard and provide to WG 2 the source references for the scripts and individual characters for inclusion in Annex L. M36 – no feedback.	M37: Completed; see documents N2084 and N2106

### Action items from meeting 36, Fukuoka, Japan

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
<b>AI-36-1</b>	<b>Meeting Secretary - Dr. V.S. Umamaheswaran</b>	
a	to finalize the document N2003 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	M37: Completed; see document N2003
b	to finalize the document N2004 containing the adopted meeting resolutions and send it to the convener as soon as possible.	M37: Completed; see document N2004
<b>AI-36-2</b>	<b>Convener - Mr. Mike Ksar</b>	
a	per resolution M36.21, to forward document N1984 to SC 2 for forwarding to the Armenian NB in response to their letter dated 1998-11-16 (in document N1981 – SC 2 N3222) (was delegated to Mr. Michel Suignard during the meeting).	M37: In progress
b	to forward document N2009 on WG 2 charter to SC 2 for consideration and adoption towards improving the SC 2 process. WG 2 further requests SC 2 to forward it to JTC 1 as an attachment to the SC 2 business plan (as part of response to Resolution 19 of JTC 1 resolutions document JTC 1 N5748).	M37: Completed
c	to forward document N2017 – response to Japanese NB concerns – to SC 2 as input into SC 2 response to JTC 1 Resolution 19 regarding Japanese National Body's concerns on SC 2 activities in JTC 1 resolutions document N5748.	M37: Completed
d	per resolution M36.24, to forward document N1961, for adoption by SC 2 as the approval process for the second edition of 10646-1.	M37: Completed
e	per resolution M36.25, communicate to the Unicode Consortium, the WG 2 request to the Unicode Consortium to act as the backup to AFIL, if necessary, for preparing the camera ready copy of the non-Unified CJK glyph charts and list of names of the second edition of ISO/IEC 10646-1 on schedule.	M37: Completed

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
f	per resolution M36.27, to request SC 2 to authorize WG 2 to decide when to forward the WD for CD registration of ISO/IEC 10646-2.	M37: Completed
g	per resolution M36.31, to request SC 2 to endorse document N2008 to publish TR 15285 on www, and forward the request to JTC 1.	M37: Completed
h	to get the front page of FDAM-17 and a few sample Han code tables from CJK Extension A for WG 2 distribution; it has been sent for JTC 1 ballot as an SC 2 document SC 2 N3220.	M37: Completed ????
i	to check and confirm with Danish Standards that the dkuug.dk web site will continue to be supported for WG 2 standards / activities.	M37: Completed
AI-36-3	<b>Editor of 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson</b>	
	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	M36.1 (FPDAM-14 on Yi syllables and Yi radicals): WG 2 accepts the ad hoc report in document N1945R on ballot comments on FPDAM-14. WG 2 further instructs its project editor to prepare the final disposition of comments and the final text of FDAM-14, based on document N1945R and discussion at meeting 36, with assistance from China and the contributing editor, and forward these documents to SC 2 secretariat for further processing with revised target dates --- FDAM 99-05 and AM 99-08 Note that the disposition of comments includes, as shown in document N1945R: - Deletion of the 7 character positions – A49F, A4B3, A4B7, A4BD, A4C1, A4C2, A4C3. - Rearrangement of character code positions in the range from A490 to A4CF. Fonts: Mr. Michael Everson to send the relevant fonts to AFII for inclusion of Yi syllables and Yi radicals in the second edition of 10646-1.	M37: Completed; see document SC 2 N3315
b	M36.2 (FPDAM-22 on Keyboard symbols): WG 2 accepts the disposition of comments in document N2016 for FPDAM.22, and instructs its project editor to prepare the final text of FDAM-22, with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates. Glyph: Messrs. Michael Everson and Asmus Freytag are to arrive at the correct glyph for the DECIMAL SEPARATOR character for inclusion in FPDAM22, and in the next edition of 10646-1.	M37: Completed; see document SC 2 N3316
c	M36.3 (FPDAM-24 on Thaana script): WG 2 accepts the disposition of comments in document N2016 for FPDAM.24, and instructs its project editor to prepare the final text of FDAM-24, with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M37: Completed; see document N2031
d	M36.4 (FPDAM-25 on Khmer script): WG 2 accepts the disposition of comments in document N2016 for FPDAM.25, and instructs its project editor to prepare the final text of FDAM-25, with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates. Khmer script: The contributing editor, Mr. Michael Everson, is to send the font used for the preparation of FDAM-25 by 1999-03-31 to Dr. Asmus Freytag, AFII, towards the preparation of the code tables in the next edition of the standard.	M37: Completed; see document SC 2 N3318
e	M36.5 (FPDAM-26 on Myanmar script): WG 2 accepts the disposition of comments in document N2016 for FPDAM.26, and instructs its project editor to prepare the final text of FDAM-26, with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates. Myanmar script: the contributing editor, Mr. Michael Everson, is to provide the updated glyphs in the font by 1999-03-31 to Asmus Freytag, AFII, for inclusion in the next edition document.	M37: Completed; see document SC 2 N3319

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
f	M36.6 (FPDAM-27 on Syriac script): WG 2 notes the ballot responses in document N1986 on FPDAM-27, which contained no comments, and instructs its project editor to prepare the final text of FPDAM-27, with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	<b>M37: Completed;</b> <b>see document SC 2 N3320</b>
g	M36.7 (PDAM-15 on Kang Xi and CJK radicals): WG 2 accepts the disposition of comments on PDAM-15 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed;</b> <b>see document N2024</b>
h	M36.8 (PDAM-28 on Ideographic description characters): WG 2 accepts the disposition of comments PDAM-28 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-28 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed;</b> <b>see document N2023</b>
i	M36.9 (PDAM-29 on Mongolian script): WG 2 accepts the disposition of comments PDAM-29 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-29 with assistance from China, Mongolia and the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed;</b> <b>see document N2020</b>
j1	M36.10 (PDAM-30 on Additional Latin and other characters): WG 2 accepts the disposition of comments PDAM-30 ballot in document N1965R, and the proposed clarification text for Annex D regarding Interlinear Annotation Characters in document N2007, and instructs its project editor to prepare the final text of FPDAM-30 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02. Note the disposition of comments includes -- deletion of SOFT SPACE at 204F; addition from document N1975 of 048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN and 048D CYRILLIC SMALL LETTER SEMISOFT SIGN; and, addition from document N1975 and N1946 of 20AF DRACHMA SIGN	<b>M37: Completed;</b> <b>see document N2021</b>
j2	M36.11 (PDAM-31 on Tibetan extensions): WG 2 accepts the disposition of comments PDAM-31 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-31 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed;</b> <b>see document N2022</b>
k	M36.12 (Technical Corrigendum on Hangul names list): WG 2 accepts document N1942 as the basis for addressing defect report in document N1806 on Amendment 6 on Hangul Syllables. WG 2 further instructs its project editor to prepare a technical corrigendum based on document N1942 and discussion at meeting 36 in response to the defect report, and forward it to SC 2 secretariat for further processing, in time for ballot starting before 1999-06-01.	<b>M37: Completed;</b> <b>see document N2018</b>
l	M36.13 (Technical Corrigendum on Collection ID for BMP of 2nd edition): WG 2 accepts the proposed fixed collection identifier in document N1983 (collection 302) for the fixed repertoire of BMP of the second edition of ISO/IEC 10646-1, and instructs its project editor to prepare a technical corrigendum to Annex A, for inclusion with the Technical Corrigendum in resolution on 'Hangul names list' above.	<b>M37: In progress</b>
m	M36.14 (Deletion of Annex N in the next edition): WG 2 notes that all but two of the entries from the informative Annex N – "Scripts under consideration for future editions of ISO/IEC 10646", of part 1 have been processed. WG 2 resolves to delete Annex N from the next edition. WG 2 instructs its project editor to delete Annex N, and add a note capturing the intent of adding new scripts in the future, in the scope of the next edition of the standard, and to process the above as an editorial consolidation of the text for the next edition of ISO/IEC 10646-1.	<b>M37: Completed;</b> <b>see document N2028</b>

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
n	M36.15 (Editorial corrigendum on zones): WG 2 accepts the Editorial Corrigendum on Zones in document N1934, with modifications based on discussion at meeting 36. WG 2 further instructs its project editor to process the above as an editorial consolidation of the text for the next edition of ISO/IEC 10646-1.	<b>M37: Completed; see document N2028</b>
o	M36.16 (Editorial corrigendum on Annex T for CJK Extension A): WG 2 accepts the proposed revisions for Annex T for CJK Extension A, in document N1943, modified by discussion at meeting 36. WG 2 further instructs its project editor to process the above as an editorial consolidation of the text for the next edition of ISO/IEC 10646-1.	<b>M37: Completed; see document N2028</b>
p	M36.17 (Editorial corrigendum on CJK compatibility characters): WG 2 accepts the proposed annotations in Annex P for the two CJK compatibility ideographs in document N1935. WG 2 further instructs its project editor to process the above as an editorial consolidation of the text for the next edition of ISO/IEC 10646-1.	<b>M37: Completed; see document N2028</b>
q	M36.18 (Editorial corrigendum on Banjgeom characters): WG 2 accepts the proposed annotations in Annex P for the Banjgeom characters in document N1935. WG 2 further instructs its project editor to process the above as an editorial consolidation of the text for the next edition of ISO/IEC 10646-1. Note: The above reference to Annex P is incorrect; it should be to clause 24.1 (see document N2028)	<b>M37: Completed; see document N2028</b>
r	M36.19 (New character bucket M36): With reference to document N1941, WG 2 accepts the proposed Triangular Overlay character, with the new name COMBINING ENCLOSING UPWARD POINTING TRIANGLE, with its proposed shape, and allocates it the code position 20E4 in the BMP. WG 2 instructs its project editor to create a new list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1.	<b>M37: In progress</b>
s	to work with the IRG editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999.	<b>M37: In progress</b>
t	to work with the Unicode liaison (Dr. Asmus Freytag) on the best way to reference the Unicode Standard in the next edition of 10646-1.	<b>M37: In progress; see document N2085</b>
u	M36.24 (Approval process for second edition of 10646-1): WG 2 instructs its convener to forward document N1961, for adoption by SC 2 as the approval process for the second edition of 10646-1. WG 2 further instructs its editor to prepare the consolidated text of the second edition of 10646-1 (update of document N1796), and forward it by 1999-05-31, along with document N1998 (sample of code charts for second edition), to the SC 2 secretariat for NB review and comment by 1999-08-31.	<b>M37: Completed; see document N2005</b>
<b>AI-36-4</b>	<b>Editor of 10646-2: Mr. Michel Suignard</b>	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	M36.26 (2nd WD - 10646 Part 2): WG 2 accepts document N2012R as the second working draft of ISO/IEC 10646-2, including the following allocation / reallocation of code positions: - Etruscan script is moved from 10200..1022F to 10300 ...1032F - Gothic script is moved from 10230 ... 1024F to 10330 ... 1034F - Deseret script is allocated to the range 10400 ... 1044F and instructs its project editor to send the document to the SC 2 secretariat for circulating for NB comment by 1999-06-15.	<b>M37: In progress</b>
b	per resolution M36.27, to request SC 2 to approve the following revised schedule: CD -- November 99; FCD – May 2000; FDIS – May 2001 and IS – December 2001.	<b>M37: Completed</b>
<b>AI-36-5</b>	<b>IRG (Mr. Zhang Zhoucai, Rapporteur)</b>	

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
a	to assist the project editor in the preparation of final text of FPDAM-15 according to resolution M36.7 (PDAM-15 on Kang Xi and CJK radicals): WG 2 accepts the disposition of comments on PDAM-15 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed; see document N2024</b>
b	to assist the project editor in the preparation of final text of FPDAM-15 according to resolution M36.8 (PDAM-28 on Ideographic description characters): WG 2 accepts the disposition of comments PDAM-28 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-28 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed; see document N2023</b>
c	M36.28 (IRG-Extension B – printing format): With reference to IRG resolution M12.1 in document N1992, and document N1993 containing the format description, WG 2 requests the IRG to note the following: In the interests of better usability, and smaller size of the standard using higher density of information per page, WG 2 expresses its strong preference that the Extension B code charts in ISO/IEC 10646-2 be printed with a single ideograph glyph per code position, and removing the information on source characters from the code charts. WG 2 also requests IRG to prepare a soft copy text file containing cross references between Extension B characters and the source standard characters (code positions) to assist with cross mapping between various source standards and 10646.	<b>M37: Completed</b>
d	IRG editor is to work with the project editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999.	<b>M37: In progress</b>
<b>AI-36-6 Ad hoc group on principles and procedures (lead - Dr. V.S. Umamaheswaran)</b>		
a	M36.20 (Criteria for encoding symbols): WG 2 accepts the Criteria for Encoding Symbols proposed in document N1982 in principle and instructs the ad hoc group on Principles and Procedures to incorporate the material from this document into the WG 2 standing document on Principles and Procedures, document N2002.	<b>M37: In progress</b>
b	to take note of including IDEOGRAPHIC VARIATION INDICATOR at 303E and remove GENERAL VARIATION MARK from FFFB in the roadmap related work.	<b>M37: In progress</b>
c	to incorporate agreed upon parts of roadmap documents N1949 BMP and N1955 Plane 1 into the principles and procedures document.	<b>M37: In progress</b>
<b>AI-36-7 Chinese national body</b>		
a	to assist the project editor in the preparation of final text of FPDAM-15 according to resolution M36.1 (FPDAM-14 on Yi syllables and Yi radicals): WG 2 accepts the ad hoc report in document N1945R on ballot comments on FPDAM-14. WG 2 further instructs its project editor to prepare the final disposition of comments and the final text of FDAM-14, based on document N1945R and discussion at meeting 36, with assistance from China and the contributing editor, and forward these documents to SC 2 secretariat for further processing with revised target dates --- FDAM 99-05 and AM 99-08 Note that the disposition of comments includes, as shown in document N1945R: - Deletion of the 7 character positions – A49F, A4B3, A4B7, A4BD, A4C1, A4C2, A4C3. - Rearrangement of character code positions in the range from A490 to A4CF.	<b>M37: Completed; see document SC 2 N3315</b>
<b>AI-36-8 TCA (Ms. Emily Hsu)</b>		

<b>Item</b>	<b>Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).</b>	<b>Status</b>
<b>a</b>	to assist the project editor in the preparation of final text of FPDAM-15 according to resolution M36.7 (PDAM-15 on Kang Xi and CJK radicals): WG 2 accepts the disposition of comments on PDAM-15 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed; see document N2024</b>
<b>AI-36-9</b>	<b>Mongolian national body (Ms. Myatav Erdenchimeg)</b>	
<b>a</b>	to assist the project editor in the preparation of final text of FPDAM-15 according to resolution M36.9 (PDAM-29 on Mongolian script): WG 2 accepts the disposition of comments PDAM-29 ballot in document N1965R, and instructs its project editor to prepare the final text of FPDAM-29 with assistance from China, Mongolia and the contributing editor, and forward these documents to SC 2 secretariat for further processing with the revised target dates: FPDAM – 99-04, FDAM – 99-10, and AM – 00-02.	<b>M37: Completed; see document N2020</b>
<b>AI-36-10</b>	<b>Irish national body (Mr. Michael Everson)</b>	
<b>a</b>	to update the plane 1 road map in document N1955 incorporating the feedback from meeting 36 and circulate for national body comments in WG 2.	<b>M37: Completed; see document N2046</b>
<b>AI-36-11</b>	<b>Japanese national body (Mr. Takayuki Sato)</b>	
<b>a</b>	Japan is encouraged to contact the Maldivian sources regarding FPDAM-24 – Thaana script. Any feedback Japan gets from Maldives can be reviewed after the next edition of 10646-1 is published. (Also see AI-35-12a transferred from the UK).	<b>M37: Dropped</b>
<b>AI-36-12</b>	<b>The Unicode Consortium (Dr. Asmus Freytag)</b>	
<b>a</b>	to work with the project editor and contributing editor of part 1 on the best way to reference the Unicode Standard in the next edition of 10646-1.	<b>M37: In progress; see document N2085</b>
<b>b</b>	to take note of and act on the resolution M36.25 (Request to Unicode consortium to be back up for AFII): WG 2 request to the Unicode Consortium to act as the backup to AFII, if necessary, for preparing the camera ready copy of the non-Unified CJK glyph charts and list of names of the second edition of ISO/IEC 10646-1 on schedule.	<b>M37: Completed</b>
<b>AI-36-13</b>	<b>The U.S. national body (Dr. Ken Whistler)</b>	
<b>a</b>	Dr. Ken Whistler is to provide sources arising from Kang Xi and CJK Radicals (FPDAM-15)– to the project editor to include in the Annex T corrigendum text.	<b>M37: Completed; see document N2024</b>
<b>AI-36-14</b>	<b>All national bodies and liaison organizations</b>	
<b>a</b>	to take note of document N1982 on criteria for encoding symbols, and advise potential contributors about these criteria on symbols that are candidates for plain text processing and are potential candidates for inclusion in 10646.	<b>M37: Noted</b>
<b>b</b>	to review and feedback on N1936 – cumulative list #8 of repertoire additions to 10646-1 to the project editor.	<b>M37: Noted</b>
<b>c</b>	to review and feedback on the 2nd WD of 10646-2 – document N2012R, by 1999-06-15.	<b>M37: Noted</b>
<b>d</b>	to take note of resolution M36.29 (Policy on 10646-1 beyond 2nd edition): As a general policy, WG 2 resolves that the objective will be to minimize the number of amendments to Part 1, without sacrificing the timeliness to meet the end user requirements.	<b>M37: Noted</b>
<b>e</b>	to review and feedback on the updated plane 1 road map (revised N1955) to be prepared by Mr. Michael Everson, and on the plane 0 roadmap in document N1949.	<b>M37: Noted</b>
<b>f</b>	to review and feedback on the revised document N1796 from technical point of view as well as translatability to different languages, to ensure that the amendments have all been incorporated -- extended deadline is end of April 1999 so that revised document can be produced by the editor for July 1999 distribution.	<b>M37: Noted</b>

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above).	Status
g	to take note of resolution M36.30 (Defect report index no. 5): WG 2 accepts document N1978R as the revised defect report index no. 5 summarizing the dispositions of all the defect report dispositions to ISO/IEC 10646-1: 1993 to date.	M37: Noted
h	to review and feedback on the following documents for the BMP – revised proposals N1930 – Buginese, N1931 – Glagolitic, N1932 – Phoenician, N1933 – Philippine; new proposals N1956 – O Cemet', N1957 – Sorang Sompeng, N1958 – Varang Kshiti, and N1962 on Optimizing Georgian.	M37: Noted
i	to review and feedback on the following documents for Plane 1: N1947 – Old Permic, N1948 – Osmanya, N1959 – Indus and N1944 – Egyptian Hieroglyphs.	M37: Noted
j	to assist WG 2 in identifying user communities for all scripts (especially new ones) towards getting their endorsements of maturity and usability of proposals prior to inclusion of the proposals in the standard.	M37: Noted
k	to take note of resolution M36.33 (Future meetings): WG 2 confirms the following future meeting schedule: Meeting 37: 13--16 September 1999 -- Copenhagen, Denmark Meeting 38: TENTATIVELY in March 2000 –China, USA as fallback Meeting 39: September 2000, Greece (USA as fall back) (along with SC 2 meeting) WG 2 accepts and confirms the following IRG future meeting schedule: IRG 13: May 1999, Hong Kong IRG 14: Dec 1999 in Singapore IRG 15: May 2000 in Taiwan	M37: Noted
<b>AI-36-15</b>	<b>AFII (Dr. Asmus Freytag)</b>	
a	Glyph: Messrs. Michael Everson and Asmus Freytag are to arrive at the correct glyph for the DECIMAL SEPARATOR character for inclusion in FPDAM22, and in the next edition of 10646-1.	M37: Completed; see document SC 2 N3316
b	AFII is to produce sample pages with 14 columns for review and deciding the final format for Hangul glyph charts, by the ad hoc editorial committee for the second edition.	M37: Completed; see document N2047; 11 column format was chosen

## 5 JTC 1 and ITTF matters

### 5.1 JTC 1

#### 5.1.1 JTC 1 endorsement of SC 2 Program of Work and Revised WG 2 Charter

Input document:

N2062 Notification of Endorsement of the Proposed Modifications to the ISO/IEC JTC 1/SC 2 Programme of Work (JTC 1 N 5826); JTC 1 Secretariat; 1999-07-14

N2063 SC 2/WG 2 Charter – Supercedes WG 2 N2009R – Same as SC 2 N 3342; WG 2; 1999-07-26

Document N2062 is an update of document N2017 - it contains a comment on 10646 from the Japanese national body, that the NP process, instead of modification of PoW, should be used for amendments to 10646. Document N2063 contains the revised charter of SC 2/WG 2 - these documents are for information to WG 2.

#### 5.1.2 Responses to Japanese JTC 1 comments regarding SC 2

Input document:

N2049 Contribution on Initiating Formal Processing of Amendments to ISO/IEC 10646 (Response to JTC 1 N5826); Ed Hart, expert contribution; 1999-08-10

N2064 SC 2 response to JTC 1 Japanese comments 5698; SC 2; 1999-07-26

N2099 Proposed procedure for submission of future proposals for SC 2/WG 2; DIN, Germany; 1999-09-13

Document N2064 is the response prepared by ad hoc of SC 2 prepared after the 1999 Fukuoka meeting. This document is for information to WG 2.

Mr. Mike Ksar: Document N2049 contains a contribution from several experts on a possible response and some procedures to follow for NP versus subdivision for amendments etc. The conclusion seems to be

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that WG 2 need not change the procedures we are using for processing amendments etc. Our positions have been documented in the above proposals as well as document N2049 and the German comments. I hope our SC 2 chair will carry these recommendations to JTC 1.

**Discussion:**

- a) Dr. Asmus Freytag: Germany - seems to have a proposal for strengthening the process. They specifically do not mention changing the SC 2 voting process. JTC 1 has the simple question of NP or subdivision in front of them. Our contribution should not be adding so much details to forward to JTC 1 -- we have to summarize addressing the issue of NP or not. We have taken note of Japanese comments -- with due deliberations we have concluded that we are following the existing procedures correctly, and further we continue to review and refine our existing procedures.
- b) Mr. Marc Küster: We do not support nor are we strongly against the NP process. We are in favour of higher level quality control of proposals. Market requirement - however the small it may be, should be addressed. I agree that the submission should address the main question. We should make it clear while we are following the existing procedure, and how they could be amended to meet the concerns raised.
- c) Mr. Michael Everson: The text I have seen here from Germany is highly controversial. I will not support these as WG 2 position. We should focus only on the SC 2 balloting process and not the details. Irish position is that the existing procedures are working fairly well -- if it is not broken do not fix it. The contribution from Mr. Ed Hart has the instances where an NP process is appropriate. Our job in WG 2 is to do the work of encoding in 10646. The process aspects should be left to SC 2 level.
- d) Mr. Takayuki Sato: What is the conclusion of these discussions at WG 2? SC 2 chair's position is that the deliberations of the ad hoc -- since is not blessed by an SC 2 resolution -- will not be carried forward. The debate on NP versus subdivision of work has been between Japanese JTC 1 group and the SC 2 secretariat. The JTC 1 directives are being quoted by both groups. We can probably suggest some clarifications to JTC 1 directives to help the cause.
- e) Mr. Erkki Kolehmainen: There is no formal way of instructing the chair from the WG to carry the message forward. The national body delegates are requested to carry the message to JTC 1 through their national bodies. If our processes has been working well, there should not be any complaint. So we should take the complaint seriously. We can still send some material to SC 2. However, these could not be carried forward to JTC 1 since SC 2 is not meeting before JTC 1 meets.
- f) Mr. Mike Ksar: I hear that you are suggesting summarizing the various documents. I am disappointed to hear that our SC 2 chair will not carry forward the wishes of the WG and that of the SC 2 ad hoc that was set up to prepare the position. We are following and will continue to follow the directives and procedures of JTC 1, we have not violated any of the procedures. The Germany paper can be taken to SC 2 for internal working.

**Disposition:** WG 2 endorses the acceptance of these documents. A summary document should be prepared by the convener and attached. WG 2 has consensus on documents N2049 and N2064, to be forwarded to SC 2 along with the summary. *See relevant resolution M37.17 below.*

**Action items:** The action items are included in the relevant resolution M37.17 below.

**Relevant resolution:**

**M37.17 (Japanese NB concerns to JTC 1 on SC 2 program of work)                      Germany and Sweden Abstained**  
WG 2 takes note of the comments in document N2062 (SC 2 N3336, JTC 1 N5826) regarding the issue of when to use NP versus subdivision process for new amendments to 10646. WG 2 endorses the recommendations from SC 2 ad hoc group established at the SC 2 meeting no. 9 in Fukuoka, Japan. Further, WG 2 accepts and endorses the recommendations in contribution N2049 (SC 2 N3341), and instructs its convener to forward document N2049 along with a summary of the recommendations to SC 2 secretariat for forwarding to JTC 1. WG 2 also encourages its experts to get support from their national JTC 1 committees of the recommendations contained in document N2049.

**5.2 Recent publications announcements**

**Input documents:**

N2071    AMD 17 (Vertical Extension A) – Publication Notice; ITTF; 1999-08-19  
N2066    AMD 18 (Euro) publication announcement; ITTF; 1999-07-30  
N2073    AMD 21 – Sinhala – Publication Notice – SC 2 3328; ITTF; 1999-06-01



The following amendments have been published by ITTF, for the information of WG 2:

- Amendment 17 – Han Vertical Extension A
- Amendment 18 – Miscellaneous including the EURO
- Amendment 21 – Sinhala

The convener thanked the editors for their contributions and the delegates for their support via their ballot response etc. *See relevant resolution M37.19 section 15.2 on page 43.*

## **6 SC 2 matters**

### **6.1 SC 2 Program of Work**

**Input document:**

**N2037R** JTC 1 SC 2 Program of Work; SC 2 Secretariat; 1999-08-25

Document N2037R is for the information of WG 2 delegates at this time. The dates therein for the work of WG 2 are all still valid.

### **6.2 Feedback on summary of WG 2's Program of Work**

**Input documents:**

**N1952** Summary of WG 2 Work Items and status of contributions, replaces N1509 S; Everson; 1999-02-20

**N2041** Feedback on N1952 – Summary of WG 2 program of work; Sato; 1999-06-23

Mr. Michael Everson: I picked up the work of maintaining the status of the various documents in WG 2 - originally prepared as an Excel spread sheet. The document would be split into two. The first part will contain all the scripts that would be published in second edition of 10646-1. The second part will contain the remainder of the scripts.

Mr. Mike Ksar: I would like to thank Mr. Michael Everson, for picking up the work from Mr. Sven Thygesen. There are links from Excel spreadsheet document to all the WG 2 documents that are on-line. We will continue to keep this up to date. Document N1952 is the standing document.

### **6.3 Nominations to Registration Advisory Group for ISO 2375**

**Input document:**

**N2061** Nominations to the Advisory Group (AG) of the Registration Authority for ISO 2375 – SC 2N3340; SC 2 Secretariat; 1999-07-06

Mr. Mike Ksar: Document N2051 contains the list of nominees to the Advisory Group for ISO 2375 registrations; it is for information to WG 2.

**Discussion:**

Mr. Takayuki Sato: Referring to the report on the Registration Authority Advisory Group, be aware that the list of RAG members is per current ISO 2375. Once the revision of ISO 2375 is done the RAG may have to be reconfirmed to the new Advisory Group.

### **6.4 Ballot results (SC 2/WG 2) and Disposition of comments**

#### **6.4.1 Technical corrigendum no.3 to 10646-1**

**Input documents:**

**N2005** ISO/IEC 10646-1 Second Edition text, Draft 2

**N2018** Draft Technical Corrigendum No. 3- Hangul Names, Collection 302 (BMP 2<sup>nd</sup> edition) – SC 2 3306; Paterson; 1999-03-31

**N2060** Summary of Voting/Replies - Corrigenda 3 – 10646-1; SC 2 Secretariat; 1999-07-05

**N2074** Korean response to corrigendum 3 on 10646-1; Korea; 1999-08-23

**N2077** Proposed informative annex on Hangul syllables; Paterson; 1999-08-21

Mr. Bruce Paterson: Document N2060 indicates 17 positive votes, and 1 negative vote from Korea, which wanted to keep the names. Document N2005 contains the necessary text. To try and accommodate the Korean comment, by eliminating the word HANGUL SYLLABLE from each name, an Annex X is proposed in document N2077. Korea has seen document N2077.

**Discussion:**

- a) Dr. Asmus Freytag: Unless someone has actually verified each entry in this table, it would be difficult to accept it. Korean delegate has told us that these names are needed only for non-Korean reading / speaking people. There is some merit in trying to accommodate their request with the tables. Chances that we would find some mistakes outweighs the benefits.
- b) Mr. Michael Everson: I do not agree with Dr. Asmus Freytag. The names are useful for several readers, in spite of the comments about only for foreigners. It is an informative annex and if there are errors detected in these tables, these could be rectified.
- c) Dr. Umamaheswaran: Annex X is only informative. There should be a link from the main clause to this Annex. A sentence can be added in Annex X pointing to the clause xxx as the normative naming convention.
- d) Mr. Alain La Bonté: I want everyone to understand that the normativeness of the names is still valid only within the language edition -- in this case the English version. The French version will have different transliteration for the syllables.

**Disposition:** Include Annex X in document N2077 as part of the corrigendum 3 text. Editor will provide a disposition of comments -- accept the Korean comment in principle.

Mr. Bruce Paterson: On page 16 there is a table of names for the syllable names and the annotation elements, and driving through the algorithm to generate both the names and annotations. Nowhere is an explanation of what the annotation elements are used for. Some text will be proposed to explain what the annotation elements are.

**Disposition:** Accepted. Project editor will include the above proposal in the disposition of comments. See *relevant resolution M37.1 below*.

**Relevant resolution:**

**M37.1 (TCOR 3)**

**Unanimous**

WG 2 accepts the comment from Korea on draft TCOR-3 and text of Annex xx on Hangul names in document N2077, and instructs its project editor to prepare a disposition of comments and the final text of TCOR-3 and forward it to SC 2 secretariat for further processing.

**6.4.2 Amendment 15 Kang Xi radicals**

**Input documents:**

**N2024** FPDAM 15 Text - Kang Xi Radicals & CJK radicals supplements; Paterson; 1999-04-06

**N2065** Summary of Voting/Replies – AMD 15; SC 2 Secretariat; 1999-08-19

**Output document:**

**N2079R** Disposition of comments on AMD 15, 28, 29, 30 & 31; Paterson; 1999-09-15

Mr. Bruce Paterson: Document N2024 contains the FPDAM text. Document N2065 contains the ballot responses. Document N2079 contains the proposed disposition of comments. There were 21 votes in favour -- Japan and UK had comments, and 1 abstention.

The UK comment was a minor editorial and was accepted.

The Japanese comment - character 2EA9 (should be 2E9A) was removed in the PDAM. IRG was to provide an explanation about duplicates 2E9A and 2F46.

**Discussion:**

- a) Mr. Takayuki Sato: Japan's concern was why there were originally two and if these are indeed duplicates.
- b) Mr. Zhang Zhoucai: Based on the information I have, we can leave the hole there. I cannot confirm why there were two before, at this time.

**Disposition:** Leave the hole where the duplicates were removed.

Mr. Bruce Paterson: When we did disposition of comments on PDAM, there were some changes to names. In the disposition of comments the word 'simplified' was left out in two names. The word was in the original balloted document. This was not caught in the FPDAM review. This corrections have been made as follows:

2EA6 - CJK Radical Simplified Half Tree Trunk

2EDA - CJK Radical C-Simplified Tree.

These two names will be corrected, and identified in the revised disposition of comments.

See relevant resolution M37.2 below.

**Relevant resolution:**

**M37.2 (FPDAM-15 on Kang Xi and CJK radicals)**

**Unanimous**

WG 2 accepts the revised disposition of comments on FPDAM-15 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.

**6.4.3 Amendment 28 Ideographic description sequences**

**Input documents:**

**N2023** FPDAM 28 Text - Ideographic Description Characters; Paterson; 1999-04-06

**N2067** Summary of Voting/Replies – AMD 28; SC 2 Secretariat; 1999-08-19

**Output document:**

**N2079R** Disposition of comments on AMD 15, 28, 29, 30 & 31; Paterson; 1999-09-15

Mr. Bruce Paterson: Document N2023 is the FPDAM text. Document N2067 has the table of replies. Document N2079 has proposed disposition of comments. There were 22 positive votes -- comments from Japan and US, and 1 abstention.

The Japanese comment is raised due to the word 'sequence'. The word CC-data-element is misinterpreted. A CC-data-element is always dictated by a higher level protocol -- and can be a single character or a sequence of characters from 10646.

In the US comment, the word "scanback" creates some difficulty.

**Discussion:**

- a) Dr. Asmus Freytag: The Unicode Consortium's comment is based on the need to have a bound on how far one has to scan back in a string to know for sure that one is not inside an IDS and associated ideographs. The goal is to provide aid to more efficient implementation. Research of the Super CJK has shown that the limit of six will cover even extreme cases of use of IDCs. The depth of nesting is another independent factor.
- b) Mr. Zhang Zhoucai: There is no concrete opinion from the IRG on this subject.

**Disposition:** The Japanese comments were accepted in principle. The concern is that an IDS should not be confused to be some sort of combining technology. The US comments were also accepted in principle. The editor will provide appropriate text, with assistance from an ad hoc group. See relevant resolution M37.3 below.

**Relevant resolution:**

**M37.3 (FPDAM-28 on Ideographic description characters)**

**Unanimous**

WG 2 accepts the revised disposition of comments on FPDAM-28 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-28 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.

**6.4.4 Amendment 29 Mongolian**

**Input documents:**

**N2020** FPDAM 29 Text - Mongolian; Paterson; 1999-04-05

**N2068** Summary of Voting/Replies – AMD 29; SC 2 Secretariat; 1999-08-19

**Output document:**

**N2079R** Disposition of comments on AMD 15, 28, 29, 30 & 31; Paterson; 1999-09-15

Mr. Bruce Paterson: Document N2020 is the FPDAM text. Document N2068 contains the table of replies. Document N2079 is the proposed disposition of comments. There were 22 positive votes -- comments from Canada and the UK, and 1 abstention.

The UK comment was editorial and was accepted.

The Canadian comment pointing out an error in transcription of the Chinese text into the FPDAM, was accepted. The editor thanked Canada for catching this omission.

**Disposition:** See relevant resolution M37.4 below.

**Relevant resolution:**

**M37.4 (PDAM-29 on Mongolian script)**

**Unanimous**

WG 2 accepts the revised disposition of comments on FPDAM-29 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-29 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.

**6.4.5 Amendment 30 Additional Latin and others**

**Input documents:**

**N2021** FPDAM 30 Text - Additional Latin and other char.; Paterson; 1999-04-05

**N2069** Summary of Voting/Replies – AMD 30; SC 2 Secretariat; 1999-08-19

**Output document:**

**N2079R** Disposition of comments on AMD 15, 28, 29, 30 & 31; Paterson; 1999-09-15

Mr. Bruce Paterson: Document N2021 contains the FPDAM text. Document N2069 contains the table of replies. Document N2079 contains the proposed disposition of comments. There were 18 positive votes - with comments from the UK; 4 negatives - from Greece, Ireland, Norway and USA; and 1 abstention.

Greek negative comments were not sent in or have not been received. The 3 negatives - comments from Ireland, USA and Norway - are all the same. We can accept removal of the six characters 04C9, 04CA, 04C5, 04C6, 04CD and 04CE -- till we have more information on these Sámi characters. Ireland has also proposed improvement to glyph for Drachma sign.

**Discussion:**

- a) Mr. Michael Everson: I suspect that the Greek comment would be on the Glyph shape for Drachma sign for 20AF. The shape in the final tables from AFII is correct. I need the correct glyph shape for the FDAM text to be prepared.
- b) Mr. Bruce Paterson: We really do not know what the Greek comment is. We go on the assumption that it is the Glyph shape for the Drachma sign.
- c) Mr. Mike Ksar: We will use the Glyph shape from the code tables in document N2047 for 20AF - DRACHMA SIGN.

UK comment -- technical --should the interlinear annotation characters be restricted from Nesting?

**Discussion:**

- a) Mr. Bruce Paterson: The reason this comment was raised was that the XML community had sent around a note requesting not to encode these characters.
- b) Dr. Asmus Freytag: There is no inherent limitation on the use of these characters. The XML community concern has been addressed by a separate technical report from Unicode/w3c - Draft TR20. The right answer is to replace the Interlinear Annotation characters with corresponding markup and not by restricting the nesting of these. The other instances where nesting is not allowed in the standard is appropriate. On a related subject, there is a large range of formatted characters -- and these are not to be used in markup languages like XML and HTML. The TR 20 will also address these. The Kirghiz requesters should take note.
- c) Mr. Erkki Kolehmainen: I am glad that such a note regarding XML is noted in the disposition of comments.

**Disposition:** The UK comment was not accepted -- the comment was made in response to XML - and the suggested UK restriction is not the appropriate solution for the XML problem. See relevant resolution M37.5 below.

**Action item:** The Unicode representative is requested to distribute the Unicode TR20 when it becomes publicly available.

**Relevant resolution:**

**M37.5 (PDAM-30 on Additional Latin and other characters)**

**Unanimous**

WG 2 accepts the revised disposition of comments on FPDAM-30 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-30 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.

## 6.4.6 Amendment 31 Tibetan extension

### Input documents:

N2022 FPDAM 31 Text - Tibetan Extensions; Paterson; 1999-04-05

N2070 Summary of Voting/Replies – AMD 31; SC 2 Secretariat; 1999-08-19

### Output document:

N2079R Disposition of comments on AMD 15, 28, 29, 30 & 31; Paterson; 1999-09-15

Mr. Bruce Paterson: Document N2022 contains the FPDAM text. Document N2070 has the disposition of comments. Document N2079 contains the proposed disposition of comments. There were 21 positive votes - China had comments, and 1 abstention.

### Comments from China:

General comment no. 2 - the AMD.6 was published in November 1997. As to the additional characters, the implementers can ignore the characters if it is not needed. We have done similar additions to other scripts.

On the technical comments - comments 1 and 2 are just accepting the changes.

Comment 3 - is the request for a new character FORM at 0FBF. There is already a character there.

Comment 5 is requesting to remove LINK at 0FBF -- this is puzzling. LINK is not in the FPDAM text.

China can always bring these additional character request in the future with strong rationale.

However, we cannot accommodate these for the next edition.

Dr. Ken Whistler has provided the information to help in preparing the response to Chinese comments on the FPDAM.

**Disposition:** The Chinese comments seem to be based on some older text. China is invited to work with the ad hoc group on Tibetan - Mr. Michael Everson, UTC experts etc. -- on the Tibetan email group. See *relevant resolution M37.6 below*.

### Relevant resolution:

#### M37.6 (PDAM-31 on Tibetan extensions)

Unanimous

WG 2 accepts the revised disposition of comments on FPDAM-31 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-31 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.

## 7 Non-repertoire issues

### 7.1 Next edition of 10646-1

#### Input documents:

N2005 ISO/IEC 10646-1 Second Edition text, Draft 2

Mr. Bruce Paterson: Document N2005 is the base document. In general, related to all the comments that have been made please keep the following in mind. The document N2005 was circulated for Editorial Comments. No balloting is to take place. The second edition will include all balloted amendments up to Amendment 31. Remember that we cannot accommodate any technical changes for this edition. These can be accommodated only in a future Technical Corrigendum or as an Amendment. There are some ballot responses which can impact the technical contents, lists of character names and tables. We have to be careful of what we can do in normative clauses or annexes. We can add clarifying sentences or notes that do not have any technical connotation.

(During the meeting, Lithuania has brought an editorial item to the attention of the editor. The title of B.2 should match the title of B.1 -- the word 'combining' should be added to title of B.2. The comment was accepted by the editor.)

### 7.1.1 Comments from Japan:

#### Input documents:

N2078 Japan feedback on text of next edition of 10646-1 (N2005); Japan; 1999-08-31

N2082 Proposed disposition of comments on N2005 – response to N2078; Paterson; 1999-09-07

Mr. Bruce Paterson: Document N2078 contains comments from Japan. Document N2082 contains the proposed response to Japanese comments. It recognizes most of the comments to be editorial. The proposed disposition is to accept all the editorial ones. Document N2078 is missing two of the Japanese comments that were sent in later by email to the convener. The proposed response addresses those as well.

#### Discussion:

- a) Mr. Takayuki Sato: Japan is in the process of publishing part 2 as JIS. During the translation process several questions were raised. The comments that have been raised so far -- Japan knows some are technical and may not be able to be accommodated. Other comments may be accommodated as editorial. The editor is requested to handle these comments according to whatever is the appropriate categorization, even though Japan has categorized them as technical / editorial etc.
- b) Mr. Mike Ksar: How does the Japanese text differ from 10646 2nd edition? What is the schedule? If 10646 2nd edition is published before March 2000 and if there are changes in the final editing, will there be sufficient time?.
- c) Mr. Takayuki Sato: The goal is to synchronize and keep the technical parts of it identical from conformance point of view. The current schedule is March 2000.
- d) Mr. Bruce Paterson: The major comments are:
  - 1) item 12 -- Japanese comment was not accepted, for the reason given by Japan is not correct. The ESC Sequence to return from 10646 to 2022 environment can occur -- even though this situation may be unusual.
  - 2) Item 20 -- Comment on use of C1 controls in the UTF-8 context. Deferred to an ad hoc.
  - 3) Ideographic characters FA1F, FA23 - were added -- without the corresponding ideographic characters shown in Annex P. This comment can be accepted in principle -- based on someone sending the appropriate lines with the embedded ideograph characters in them. Mr. Michel Suignard has the necessary fonts and information. Will provide it to the editor.
  - 4) item 18: request for clarification of some examples towards better understanding of C.6 and C.7. New text is proposed to clarify the example. It was found still to be confusing. Comments and suggestion for improvements are invited. Suggestion was to replace <alpha> with the glyph for alpha character.

**Disposition:** Accept the proposed disposition of comments in document N2078. All national bodies and delegates are requested to review the proposed changes and feedback to the editor before end of the meeting.

**Action item:** Need checking with ITTF to see if editors have sufficient freedom to generate multilingual documents using appropriate fonts.

### 7.1.2 Sources of characters

#### Input document:

N2084 10646-1 2nd Edition, Sources of Characters, Status; Paterson; 1999-09-09

Mr. Bruce Paterson: Document N2084 has listed the sources of characters to be included in an Annex of the 2nd edition. It is a request for help for missing items. The present Annex M contains a list of international standards, national standards or books that are generally available. Document N2106 - response from Mr. Michael Everson contains proposed lists of sources that can be identified for different scripts included in the standard. Electro technical symbols are covered by a registry of symbols. As to Ethiopic - the book by Daniels & Bright was questioned as a possible reference.

#### Discussion

- a) Mr. Johan van WIngen: The above book has too short a description of many scripts. Some books should be read with extreme caution. There should be general references also added to the bibliography -- which are often compilations of several scripts.

- b) Mr. Mike Ksar: We have to finalize the list of sources is to be included in the next edition of 10646-1 today. Should we be concerned with titles which are not in English?
- c) Dr. Asmus Freytag: If this list is to be included for the next edition then we should take out those we do not have agreement on.
- d) Mr. Marc Küster: Wherever possible the preference for script information should be the original sources -- for example, a dictionary instead of a summary of the script in some book.
- e) Mr. Bruce Paterson: If the references are not appropriate we should take it out.
  - For Amendment 10 - the book by Daniels and Bright is already in the book list. We have a list of 10 books in the list - are there any objections? NO.
  - Symbols and other characters - already covered by the register.
  - Bopomofo extensions -- when we get a source on the subject -- we can add them.
  - Syriac - a large number of sources in the WG 2 proposal form. Which one can we select? It will be covered by the general sources till we get a better answer. We will leave it out for now.
  - Amendment 30 - Mr. Michael Everson will provide to Mr. Bruce Paterson reference to TC46 standards from which several characters were added into 10646.
  - Amendment 31 - Tibetan reference -- a dictionary. The reference is to be provided by Mr. Michael Everson to Mr. Bruce Paterson.
  - Amendment 11 - CASEC -- report was cited as the source of CASEC syllabics. But it is not a published document that one could order from a library etc. It was a committee report. It should be taken out from the list.

Will we be sending the final text once again for review before publication? Revised document N2005 incorporating all the proposed changes at this meeting can be circulated by end of October 1999.

**Discussion:**

- f) The non-Han charts are already with the editor. There is one correction in one chart. We need to know when the Han charts will be made available.
- g) Mr. Zhang Zhoucai: The IRG discussed the extension A amendment only. There was no discussion of printing the charts for the 2nd edition. If the final page number is made available to me, I can print out the IRG charts in 30 days.
- h) Mr. Mike Ksar: I would like to thank the editor and the contributors. Will there be an updated annex E?. YES. It will be supplied by Dr. Ken Whistler based on the Unicode data base. Can you direct the print out of the Han charts to soft copy?
- i) Mr. Zhang Zhoucai: For the CJK main part it can be done. However, for the CJK Extension A, we can not do it. So far I have no means to generate a soft copy - it may be a problem.
- j) Mr. Michael Everson: If there is any change to any of the pages of the charts it will be useful to get the changed page only.

**Disposition:** Editor will incorporate the updated information for references in Annex M in the revision of document N2005 by end of October 1999. The editor will prepare the textual part and circulate to SC 2 and WG 2. The code table charts for both Han and non-Han will be sent to ITTF only. The default is for the Han charts to be sent to the project editor, Mr. Bruce Paterson, unless if the convener Mr. Mike Ksar advises Mr. Zhang Zhoucai otherwise.

**Action Items:** Mr. Mike Ksar to check with ITTF as to whether the Han charts could be sent separately to ITTF rather than through Mr. Bruce Paterson, to reduce some of the costs.

Mr. Zhang Zhoucai will advise Mr. Mike Ksar as soon as he is ready to print out the Han charts.

**7.1.3 Comments from the Unicode Technical Committee**

**Input documents:**

- N2085 Unicode/US (L2) feedback on text 10646-1 next edition (N2005); Unicode/US L2; 1999-09-09
- N2108 Editor's response to UTC comments on 10646-1 next edition; Paterson; 1999-09-12

Mr. Bruce Paterson: Document N2085 from the Unicode Technical Committee asks for a number of changes to Part 1 2nd edition. Response to Unicode input is contained in document N2108. The requests from the Unicode Technical Committee have been accommodated in the form of three notes proposed to be added in different parts of the 2nd edition text.

**Discussion:**

- a) Mr. Takayuki Sato: Please check with ITTF as to whether referencing a non ISO standard is OK in the above context.

- b) Mr. Erkki Kolehmainen: The word 'correctly' appears regarding BiDi algorithm text. Since this committee has not had a chance to verify this we should remove it.
- c) Dr. Asmus Freytag: The algorithm has been published in Unicode Technical Report (UTR) no. 9, which is available for referencing. The algorithms have been tested by two independent implementations, to verify the correctness of the algorithm. The reference to the standard would be sufficient for referencing instead of the UTR. The UTR can be circulated to WG 2 for information.
- d) Mr. Marc Küster: The word "correctly determining" should be checked.
- e) Mr. Michael Everson: On document N2005 - I sent a number of editorial typographical errors -- check the use of Bi-Directional with / without the hyphen.
- f) Mr. Erkki Kolehmainen: If one says that it can be determined, it cannot be incorrectly determined.
- g) Mr. Mike Ksar: Remove the word Correctly in item 2 note.

**Disposition:** Accept the proposed notes in document N2108 in response to UTC comments in document N2085. See relevant resolution M37.8 below.

**Action item:** Mr. Mike Ksar to check with ITTF on referencing non-ISO standards in the context of document N2108. Circulate The UTR 9 - BiDi Algorithm - to WG 2 for information.

**Relevant resolution:**

**M37.8 (Next edition of 10646-1)**

**Unanimous**

WG 2 instructs its editor to prepare a revised text of document N2005 (textual part of the next edition of 10646-1) incorporating changes arising from:

Amendment 15, Amendment 28, Amendment 29, Amendment 30, Amendment 31, Technical Corrigendum 3 (see resolution M37.1 in section 6.4.1 on page 17), Responses to comments on document N2005 in documents N2082 and N2108 (amended by discussion at this meeting), Updated list of sources of characters in Annex M (based on documents N2084 and N2106, and changes to document N2106 based on discussion at this meeting), and, Annotations to Thai character names (see resolution M37.7 in section 12.1 on page 39)

and forward the revised text to SC 2 secretariat for circulation to national bodies and liaison organizations for information, by 1999-11-01.

WG 2 further instructs its project editor to prepare the camera ready copy of the second edition of 10646-1 consisting of the above revised text, the final code charts for non-CJK ideographs from AFII and the final code charts for CJK ideographs from the IRG, and submit it to ITTF by 1999-11-01.

## 7.2 Graphic representation of the BMP roadmap

**Input document:**

**N2045** Graphic representation of the Roadmap to the BMP, an update of N1949; Everson; 1999-08-16

Mr. Michael Everson: The changes in document N2045 from document N1949 are in the preamble text. The next version will be reflecting the acceptance status of the different amendments that will be included in the next edition. The underlined entries are links to proposal / preliminary documents that are available for information.

**Action item:** Feedback should be sent to Mr. Michael Everson with copy to the convener.

## 7.3 Sorting order of Philippino "Ng" character

**Input document:**

**N2039** Sorting order of Philippino Ng; Philippines and Japan, Sato; 1999-06-23

Mr. Takayuki Sato: The character Ng was proposed at the London meeting. The question was - is it a ligature or a single character. The user feedback was that it is sorted as a single character -- and therefore it should be treated as a single character.

**Discussion:**

- a) Dr. Umamaheswaran: We do have similar case of CH in the Spanish case. So for sorting we can treat NG as a single entity. If sort is the only instance, then we should ask for more evidence.
- b) Mr. Michael Everson: This proposal should not be accepted. The NG is similar to many other similar two characters (in Welsh for example) are treated like a single character for Sorting -- but not for encoding. If sorting is the only reason, it is not strong enough reason for separate encoding.
- c) Dr. Asmus Freytag: The document N2039 distributed did not have sample texts attached. The advise to Japan would be to withdraw the document -- on the basis that the rationale for including this a single encoded character is not strong -- citing similarities to the Spanish, Welsh examples.



- d) Mr. Birger Jacobsen: We do have a similar situation with AA and A-circle above.
- e) Mr. Michel Suignard: We had similar situations with other characters that are in 10646 -- sorting issues are being dealt with in 14651 from SC 22/WG 20.

**Action Item:** Mr. Michael Everson to prepare response to document N2039 -- stating that sorting order alone is not sufficient justification for encoding NG as a single character.

#### **7.4 Letter from Romania to SC 2 regarding 10646-1 edition 2**

**Input document:**

**N2117** Input from Romania on 10646 Annex P; Romania; 1999-09-15

Mr. Mike Ksar: Document N2147 contains a letter sent to SC 2 secretariat from Romania. It is not too clear as to what is being asked of WG 2 at this time. There are some questions on the rationale behind the request. The letter implied that the 8859 part on Romanian has not yet been approved. Only the NP has been approved.

Ms. Alexandrina Stătescu: We understand that this request cannot be accommodated at this time and since 8859 part on Romanian has not been approved by SC 2, and the part 1 second edition is frozen.

**Disposition:** Respond to SC 2 indicating that the request from Romania was withdrawn at this time -- since 8859 part referenced in the letter from Romania is not yet a standard, and will not be ready in time for the next edition of 10646-1.

**Relevant resolution:**

#### **M37.13 (Feedback to Romania)**

**Unanimous**

With reference to document N2117 (letter from Romania to SC 2 requesting changes to Annex P of 10646-1), WG 2 instructs its convener to inform SC 2 that the request of Romania cannot be considered at this time, and to invite the Romanian national body to resubmit it for consideration *after* the relevant 8859 part has become a standard.

### **8 Repertoire issues - next edition of 10646-1**

#### **8.1 Request for two more collection identifiers**

**Input document:**

**N2080** Request for two additional collections in ISO/IEC 10646-1; Everson; 1999-09-05

Mr. Michael Everson: CEN/TC 304 workshop on MES, is working on collection definitions. Finland and Ireland had alerted WG 2 of this work in an earlier meeting of WG 2. As part of the proposal is MES-3A where there is a need to exclude some ranges of characters. Two new collections LTR Alphabetic Presentation Forms and RTL Alphabetic presentation forms are proposed to be identified. These collection identifiers have to be processed as Technical Amendments to the standard. It can go into a Bucket for the future edition.

**Discussion:**

- a) Dr. Asmus Freytag: You are not stopped from proceeding with what you want to do by enumerating the character ranges etc. that are either included or excluded -- the simplest being single character enumeration.
- b) Dr. Umamaheswaran: We need to understand the rationale -- the need for such a Collection has to be stated more clearly.
- c) Mr. Michael Everson: There is a rationale to include these collections to be able to identify use of presentation characters which have the LTR and RTL forms separated out.
- d) Mr. Mike Ksar: The suggestion is to get review and feedback from national bodies and liaisons on this document. Our preference is not to add any more characters or new items to be added to beyond the 2nd edition of 10646. Our current editor is focusing on the next edition of part 1. I prefer not to add any more items to the bucket, or to do, for future inclusion into 10646-1 till at a later meeting.
- e) Mr. Marc Küster: If the rationale has to be CWA to bring it forward, it may not exist by the next time frame for submission.
- f) Mr. Michael Everson: Even if the CWA does not exist, it would be an action item on the CEN/TC 304 secretariat.

**Disposition:** No action at this time.

**Action item:** Mr. Michael Everson is invited to explore other ways in which the requirement could be met than a collection identifier -- for example, an enumeration of the included / excluded characters in MES-3A.

## **8.2 Proposal for extension of Myanmar**

**Input document:**

**N2033 Proposal for Extension of Myanmar Coded Set; John Okell and Hugh McG Ross, UK; 1999-06-03**

Mr. Michael Everson: Document N2033 contains several examples, requesting that several new characters be added to Myanmar script. At this point in time we have to read the document and understand the proposal. I would like other interested parties also review the document.

### **Discussion:**

Dr. Asmus Freytag: Note in column 106 of Table 240, there are several double combining characters proposed. I am not sure we all understand how to fully deal with such double combining characters. I would like WG 2 to go on record that we are not eager to go along with double combining characters and we need some more justification for these double combining characters.

**Action item:** Myanmar experts -- to review document N2033, with particular attention to the proposed DOUBLE COMBINING MARKS in the document.

## **8.3 Peso sign**

**Input document:**

**N2040 Peso sign; Philippines and Japan (tks); 1999-06-10**

Mr. Mike Ksar: Document N2040 is a proposal from Japan to add the Philippines Peso currency sign as a separate character. There is an attachment from news paper that is missing. To avoid the missing attachments in the future, everyone is requested to send the document in electronic form. One can create pdf file, without the convener having to do the scanning etc. I need a document that is distributable without any additional work.

### **Discussion:**

- a) Mr. Takayuki Sato: The Philippine requirement was for a P with two bars.
- b) Dr. Asmus Freytag: Pts - is used for Spanish Pesetas. Pta and Pts could be glyph variants. P with a single bar and P with a double bar could also be considered glyph variant. The situation we are in is that Pta and P with a single bar are unified -- these are called Pesetas. The glyph chosen in 10646 and Unicode for 20A7 seems to be different from current practice. We could make an editorial correction to change the glyph for Peseta to Pts (reflecting the current practice). If people have implemented the P with the single bar, this could be regarded as a mistake -- for example, the Korean mapping situation. Be careful with the pdf file -- especially with fonts if it is not embedded in the document.
- c) Mr. Michel Suignard: We have a precedence for Yen and Yuan with single and double bars. We decided to unify these. There is a variety of fonts that are available - based either on 10646 or Unicode specifications. Some have for 20A7 PESETA SIGN - Pts, and the others have P with a single bar. The suggestion to resolve the issue is to have P with a double dash separately. The current P with a single dash is ambiguous.
- d) Mr. Mike Ksar: If we agree on a change to the glyph, I would like to see it in the next publication.
- e) Dr. Asmus Freytag: The camera ready copy of the 2nd edition - the glyph tables are with the editor. AFII which produced the camera ready copy is out of the business.
- f) Mr. Michel Suignard: If we take the decision at this meeting to correct the glyph, I would like to know if the Unicode Consortium will change the code table or page with the glyph correction?
- g) Mr. Mike Ksar: Mr. Takayuki Sato is going to propose the new character for the Peso sign. I do not want to drag the discussion towards delaying the publication.
- h) Mr. Michel Suignard: I cannot accept this -- if we know there is an error, it should be fixed at this meeting. In this case, it is a single glyph which requires correction.

An ad hoc discussion during the meeting did not have any further input to the above discussion.

**Disposition:** No action at this meeting. A potential Resolution is to change the glyph used for 20A7 - PESETA SIGN from P with a single bar to the glyph "Pts". Japan is invited to prepare a proposal for inclusion of the Peso sign.

**Action item:** Japan is invited to prepare a proposal for inclusion of the Philippines Peso sign.

## **8.4 Supplement Arabic for Uighur, Kazakh and Kirghiz)**

Input documents:

N2027 Proposal for Uighur, Kazakh and Kirghiz in Arabic; China; 1999-04-09

N2048 Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz

Document N2048 was introduced by Professor Woshur Slamu from China. The request contains two proposals:

- a) Request for two missing Vowel Letters -- with Hamza. These were accepted in an earlier WG 2 meeting, but have not been included in the standard. Without these it is not possible to display all the necessary characters in Kirghiz. They were forgotten from inclusion in the original proposal from China.
- b) Request for two Graphic Forms: The other two graphic forms are still under consideration in WG 2. They are the Yeh with Hamza above isolated form and Yeh with Hamza above final form. These were input in Helsinki meeting (?)

**Disposition:** The document is considered as a request for consideration by WG 2 for future meeting - and if accepted for future inclusion in the standard.

## **8.5 Proposal for Nepalese script**

Input documents:

N1999 Proposal to add Nepalese; Nepal; 1999-03-05

N2055 Comment on Proposal for Nepalese Script; Hugh McG. Ross; 1999-07-29

Document N1999 contains a proposal to add Nepalese characters. Experts on Nepalese were not attending. Feedback from Mr. Hugh Ross is in document N2055.

**Discussion:**

Mr. Michael Everson: I have read Mr. Hugh Ross's contribution and I agree with it. There are two proposed characters which are not in Devanagari -- need to know what these are and why these are needed.

**Action item:** Japan is going to meet the Nepalese experts next week. Mr. Takayuki Sato will take document N2055 as feedback to that meeting.

## **8.6 Proposed amendment to Hangul repertoire**

Input document:

N2056 Proposed amendment to Hangul Repertoire – Synchronize with KPS 9566-97; Committee for Standardization of the D.P.R. of Korea; 1999-08-10

Document N2056 contains a proposal from the D.P.R. of Korea for changes to Hangul in 10646-1 to synchronize with their national standard KPS 9566.97.

**Discussion:**

- a) Mr. Michel Suignard: I have looked at the full set. There are two items - some missing syllables and others are reordering of existing ones. They have used different names for the syllables -- some have accented characters. The suggestion is we can entertain the new syllables that have been requested. Existing ones we cannot reorder. We should continue the existing convention for naming the missing syllables.
- b) Mr. Marc Küster: We could point them to the ordering standard to be able to the sorting correctly -- point to FCD14651 which is under ballot right now. SC 22/WG 20 may be contacted to get more information.

**Action item:** Messrs. Michel Suignard and Umamaheswaran to work together to get a feedback document to be sent to SC 2 to forward to DPR of Korea. Invite DPR Korea to participate in the IRG to discuss their proposal in item 4) of document N2056. Point DPR to 14651 for Sorting correctly. The feedback is contained in the relevant resolution below.

**Relevant resolution:**

**M37.12 (Feedback to D.P.R of Korea)**

**Unanimous**

With reference to the NP in document N2056 to amend the Korean encoding of Amendment 5, WG 2 instructs its convener to inform SC 2 to respond to the Committee for Standardization of the D.P.R. of Korea:

- that WG 2 cannot support this NP because any reordering of the standardized Korean Hangul characters would harm existing implementations that are using the standard including its Amendment 5
- that existing standardized character names cannot be changed because character names are normative in the standard and changing them would harm existing users of these standardized character names
- invite them to make concrete proposals to add any missing characters following the existing WG 2 Procedures and Guidelines document (JTC 1/SC 2/WG 2 N2002), and the conventions for naming of characters in the standard, for future consideration by WG 2, and,
- invite them to participate in the IRG regarding any Hanja character requirements they may have, and,
- draw their attention to FCD-3 of ISO/IEC 14651 -- international ordering under ballot in SC 22.

**8.7 Philippine script**

**Input document:**

**N1755** Philippines repertoire; Everson; 1998-05-27

Mr. Michael Everson: Document N1755 - contains a proposal for Philippines script. The UTC has accepted in principle to encode this also. It is proposed to be included in the BMP.

**Discussion:**

Mr. Takayuki Sato: I have sent this document to Philippines contact earlier. They are awaiting finding suitable experts to be able to meaningfully comment on the document.

**Action item:** Mr. Takayuki Sato to forward document N1755 / check with Philippines contacts to get feedback on document N1755.

**8.8 New JIS**

**Input documents:**

- N2089** Japanese NB comment on WD 2375; Japan; 1999-09-03
- N2090** Registration Authority comment on WD 2375; Registration Authority; 1999-09-03
- N2091** Registration Authority Report – Revised; ITSCJ; 1999-09-03
- N2092** Addition of forty eight characters; Japan; 1999-09-13
- N2093** Addition of medical symbols and enclosed numbers; Japan; 1999-09-13
- N2094** Addition of 13 linguistic educational characters; Japan; 1999-09-13
- N2095** Addition of CJK ideographs which are already unified; Japan; 1999-09-13

Mr. Takayuki Sato: Of the several documents above, documents N2089 and N2090 are comments on WD 2375 -- will be discussed in WG 3. Document N2091 - On the Registration Authority practice - refers to SC 2 3290. It contains suggestions for WD2375 modifications. These are for Information to WG 2.

Documents N2092, N2093 and N2094 -- are requests for additional non-ideographic characters. JISC is in the process of revising the national standard JIS 213. These three documents contain proposals for -- 13 linguistic educational characters (document N2094), 67 medical symbols and enclosed numbers (document N2093), 48 additional non ideographic characters (document N2092) -- for future inclusion in 10646-1.

Document N2095 - CJK Ideographs - there are 56 ideographs are proposed. These have been unified in current 10646 according Annex T. Since these characters are separately encoded in JIS, there may be a need to dis-unify, and will end up in getting round-trip mapping problems. Similar requirements have been raised by Taiwan to IRG etc. This raises several questions that have to be asked regarding the CJK Unification, use of compatibility zone, give up on CJK Unification etc. that WG 2 members have to worry about. IRG will be discussing these items and I would like to see WG 2 have some opinions and input to IRG.

**Discussion:**

**Non-Ideographic characters:**

- a) Mr. Mike Ksar: These documents are referring to JIS that will be published end of the year (fiscal year - March 2000). I am concerned that these documents were not brought to the attention of WG 2 much earlier. If JIS 213 is going to have characters that the implementers have to support, and 10646 does not have these in a close time frame, there will be potential

incompatibilities in implementation. The lack of synchronization may cause problems. Japan's statements that these characters are important for keeping upward compatibility with Japanese products -- are of some concern to WG 2. What is the JISC process for approving JIS 213? WG 2 was not alerted of such a public review.

- b) Mr. Takayuki Sato: In the past, when a repertoire is not defined, the standard WG 2 answer is to go and please finalize the repertoire. The final repertoire of JIS 213 was finalized only in August 1999. It may not be possible for national bodies to come to WG 2 all the national plans. Only when it is a concrete proposal it can be brought to WG 2.
- c) Dr. Asmus Freytag: Based on the collection of characters that are proposed by JISC, we cannot make the assumption that the synchronism can be maintained between JIS 213 and 10646. There was a list of standards we did guarantee upward compatibility -- in the past. Beyond that we have to ask questions on the whole set of characters that have been proposed. Having the precise repertoire is nice and we can work with these to study them, where to include in the BMP etc. If national bodies bring in a complete repertoire, have standardized already and then request WG 2 to add these characters, there will be potentially lack of synchronism. The Euro character was an example where it was absolutely clear that everyone in Europe will need it. The new Japanese characters may not all be required by all users. There is also incompatibility with previous characters. I would also like to see separation between medical symbols and enclosed numbers as separate groupings. Individuals had access to these proposals during the public review process. Some of the proposals have attachments showing where characters are used etc. What is the distinctive feature of Ainu Katakana? (These are meant to be small in size). General Punctuation at 2050 -- I need to understand that these are real symbols. Are the dental symbols used internationally or only in Japanese dental practice?
- d) Mr. Michael Everson: There are questions like why some of the circled numbers cannot be encoded using combining circles. Why are some of the circled numbers missing?
- e) Mr. Takayuki Sato: These are requirements expressed by JIS to WG 2. We welcome feedback towards improving these proposals. JIS 213 has been balloted and these are from the final repertoire. The draft proposal has already been approved. JISC has to review and accept the new standard or not. There will not be any changes to the repertoire. All the comments received during the draft stage were all resolved by JISC. These were sent out for public review in Japan on a public site. This is not a matter for WG 2 - it is a matter for JIS.

**Action item:** national bodies and liaisons are invited to review these documents and feedback to Japan.

**Ideographic characters:**

- a) Mr. Mike Ksar: Question to IRG - have they received document N2095 before? (No).
- b) Dr. Asmus Freytag: It seems the compatibility characters in general are interesting subject -- not necessarily for Ideographs alone. We have concluded in the Unicode Consortium for the latest version, the section called Compatibility is not necessarily the only place where one would find characters which are compatibility in nature. Questions about what is the nature of compatibility etc. will be asked. For example, Japan has given some Legal Reasons, similarly there may be other reasons in other countries. There is another thought that has been brought up -- can we unify the Compatibility Characters -- even though they could have been but cannot be unified with the main CJK. This concept may be discussed by IRG. We have a block dedicated to CJK Compatibility characters. Some the proposed compatibility characters may go into that unused space, the other should probably go outside the BMP.
- c) Mr. Michael Everson: Looks like the requirement for the new characters is asking for disunification -- I am confused.
- d) Mr. Michel Suignard: The rationale for compatibility characters are from all different sources. These have been preventing the mapping to and from existing national standards. Providing compatibility would be useful -- otherwise, it may not be able to roundtrip these characters. I would like to get some idea as to whether some unification of these compatibility characters can be done. We need to see if IRG can get an opinion on this or not.
- e) Mr. Zhang Zhoucai: IRG's immediate priority is to focus and complete the Extension B. We can initiate these discussion in IRG - but we may not be able come to conclusion quickly. It is a very complicated topic. I cannot guarantee that we can come with any recommendation at our next meeting.

- f) Mr. Mike Ksar: We can request IRG to place the subject on the agenda for the next IRG meeting. We can instruct the IRG to discuss the item of unification rules for compatibility characters, or whether these compatibility characters have to be identified by the submitter. IRG has the expertise and the subject matter can be discussed at its December 1999 meeting.
- g) Mr. Michel Suignard: Do we have consensus that these compatibility characters are going into Plane 2 in a separate area - except some small number of them which may go into the BMP?
- h) Dr. Asmus Freytag: We may need to decide that we have reserved a block for compatibility ideographs outside the BMP. We need to get an estimate of how big these will be.
- i) Mr. Michel Suignard: F900 -- FAFF -- is the current area in the BMP reserved for Compatibility characters -- the empty positions may be initially filled before going to Plane 2.
- j) Mr. Zhang Zhoucai: We need more information provided by submitters of the compatibility characters. We need enlarged glyphs, which characters these were originally unified with in the basic CJK set etc.
- k) Mr. Michel Suignard: It is important to provide these information.
- l) Dr. Asmus Freytag: Unicode needs such information also.

**Disposition:** IRG to review document N2095, which includes proposed compatibility characters from Japan. We are assuming that:

- there will be other similar compatibility ideographic characters that may be proposed for inclusion in IRG.
- these characters will be in plane 2, except for small set of exceptional characters that may go into the BMP

Some of the questions to be addressed are:

- is there a need for criterion for unification of compatibility characters or should these be separately identified by individual submitters?
- What would be estimated size of such a compatibility area, potential starting area - based on IRG experts' input at the IRG.

See relevant resolution M37.16 below.

**Action items:** national bodies and liaisons are invited to review these documents and feedback to Japan. Japan is requested to provide additional information to IRG -- per Mr. Zhang Zhoucai's request.

**Relevant resolution:**

**M37.16 (CJK compatibility ideographs from JIS)**

**Unanimous**

WG 2 requests IRG to review document N2095 on CJK compatibility Ideographs from Japan, and provide their input to WG 2 before meeting 38 of WG 2, in the context of IRG resolution M13.8 in document N2111.

**8.9 APL character repertoire**

**Input document:**

**N2088** Input from SC 22/WG 3 – APL character repertoire; SC 22/WG 3; 1999-09-07

Document N2088 from Mr. Lee Roy Dickey is for information from SC 22/WG 3 to WG 2 and to pass on to the Unicode Consortium from conversion tables exercise.

**Discussion:**

Dr. Asmus Freytag: There are mapping differences for example APL Function Quad has been mapped to the Hollow Square instead of the APL Function Quad.

**Action item:** Mr. Alain La Bonté and Dr. Asmus Freytag to prepare a response to APL SC 22/WG 3.

**8.10 Lithuanian - additional characters**

**Input document:**

**N2075R** Proposal to add Lithuanian Accented Letters to 10646-1; Lithuanian Standards Board; 1999-08-15

Mr. Vlados Tsumanosis presented document N2075R, a proposal from Lithuanian Standards Board, to extend the Lithuanian character set in the BMP -- in Latin Extended B -- by 35 characters. There are 68 accented letters in the Lithuanian alphabet (34 of each case). Accented versus non-accented characters do make a difference in the meaning of several words. A copy of existing right hand part of 8859-13 is included - which is the latest national Lithuanian national standard. There are 35 fully formed accented characters missing from 10646, the rest are already in UCS in a fully formed manner.

## Discussion:

- a) Mr. Michel Suignard: Dictionary entries are very special -- even in English, these are hints for pronunciation. So the Dictionary entries cannot be used as evidence for requirement of these. Other sources of references / evidence will be better. All the characters required by Lithuanian can be currently encoded using combining sequences. Unicode 3.0 will be the basis for normalization -- any additional precomposed characters will have to be decomposed in normalization for all characters that are in today's Unicode 3.0. The requirement for these precomposed characters should be reconsidered.
- b) Mr. Marc Küster: It is true that these characters can be represented using composition. The software runs slow -- especially in the internet context. The fully composed characters are used. It is used in the official world of law etc. to distinguish homographs. Such use makes a good case for including these precomposed characters in the standard.
- c) Dr. Asmus Freytag: I would like people to be aware of the normalization algorithm and it has a potential impact on future WG 2 and Unicode decisions regarding pre-composed characters. (*A brief overview of the normalization algorithm in the context of w3c and use in XML normalization was presented.*) A fixed set of precomposed characters and their corresponding combining sequences are equivalenced. In order to arrive at unique results in searching operations, matching operations etc., normalization needs to be done. The normalization rules are such that they have chosen to normalize to PRECOMPOSED for those that are in Unicode 3.0 / 2nd edition of 10646. Any future precomposed characters will be normalized to COMBINING SEQUENCES on the internet via normalization. One would not see these as PRECOMPOSED in XML and other early / pre normalized texts on the Internet. One could expect that all content to be normalized to PRECOMPOSED up to the 2nd edition of 10646 (10646-1: 2000) and all others are going to be decomposed. The reason this decision was made was because every time a new character is introduced, the normalization has to be fixed to a given repertoire. Otherwise, the data ends up being "not found" in its original form. The question on performance, support of combining sequences etc. have to be taken up with vendors.
- d) Mr. Michel Suignard: The above normalization algorithm will lead to less emphasis for including precomposed characters in 10646.
- e) Mr. Marc Küster: It is a reasonable approach for normalization. I only hope that rendering engines are made available to be able to deal with these. The greater problem is the legacy sets will continue to send the precomposed ones. Software that is developed in the near future is unlikely to implement normalization algorithm etc. Given the need for Lithuania to publish legal documents using existing technology we need precomposed characters.
- f) Dr. Asmus Freytag: The current legacy program behaviour is the reason for the choice of the precomposed normalization form. The current 10646 repertoire of precomposed characters is fairly complete. The Internet community has taken the decision to do these. The normalization process has been accepted in principle in w3c -- and by the time we take it into our standards it will be a few years. However, on the web, it is moving at much faster rate. Even when the normalization is coming up in the future, all characters which are proposed to be precomposed beyond the second edition of 10646-1: 2000, will be taken apart / decomposed.
- g) Mr. Mike Ksar: This will lead to data stability -- especially on the internet. There will be implementations supporting the combining sequences sooner rather than later. Also even if we accept these precomposed characters now, it will take a couple of years before it gets into 10646, whereas the w3c technology is moving faster.
- h) Mr. Vados Tsumanosis: Can't you declare that these characters -- new ones -- cannot be decomposed in the equivalence algorithm? (It is too late for beyond the next edition of the standard).
- i) Mr. Michael Everson: No one can be more passionately in agreement with rendering problem mentioned by Mr. Marc Küster. The next few years are going to be interesting. The last time we met -- we proposed a large number of fully formed accented Cyrillic characters -- the decision by WG 2 was that characters which are only for marking accented pronunciation etc. they will not be included as precomposed form. We can include these characters in the other language oriented project documents such as the Alpha project in CEN/TC 304.

**Disposition:** Mr. Vlado Tsumanos is to take the feedback from the meeting to Lithuanian national body. It looks like these new precomposed characters will not be accepted for inclusion for the reasons cited.

**Action items:** Mr. Vlado Tsumanos to take the feedback to Lithuanian standards body. Dr. Umamaheswaran is to include a warning in the Principles and Procedures document to proposers of future precomposed characters into the standard on the effect of normalization UTR on the integrity of the characters. The report on normalization should be included for reference by WG 2 in its future work.

## **9 Non-repertoire issues – 10646-2**

### **9.1 Feedback on WD 10646-2 from Japan, Sweden, UK and US**

Input documents:

N2012R CD 10646-2: General Scripts and Symbols, CJK Extensions, General Purpose Plane; Suignard; 1999-03-10

N2034 Comments to 10646-2; Sweden, Monica Stahl; 1999-06-15

N2057 Feedback on WD document N2012R – 10646-2 from Japan, Sweden, UK and U.S. – SC 2 N3332; Japan, Sweden, UK and U.S.; 1999-06-22

Output document:

N2087R Disposition of comments 10646-2; Suignard; 1999-09-13

The national body comments is in document N2057. The proposed disposition of comments is in document N2087.

#### **9.1.1 Swedish comments:**

Mr. Michel Suignard: There are several comments from Sweden on tag characters. These tag characters are there for IETF protocol purposes. They are there to indicate language preferences in protocols that do not have markup capability. It is a much better solution than alternative proposals such as modified interpretation of UTF-8. The Swedish comments were also circulated on the net, and there was a lot of discussion on the net. One has to understand that not everything today is XML / HTML with markup capability. Annex C is only informative and is a guideline for the implementers. The tag alphabet is equivalent of the ASCII set, based on the current known requirement of the user community. One of the other reasons it is restricted to the ASCII set is global interoperability.

#### **Discussion:**

- a) Mr. Erkki Kolehmainen: There has been quite extensive discussion on the internet. The standard that we come up with must be suitable for the user community. Whatever IETF or w3c for XML, HTML, etc. are doing need to be monitored carefully. We can make the final decision based on their need.
- b) Dr. Asmus Freytag: IETF is a liaison organization with JTC 1. We can make a formal liaison contact with them -- once the specific final draft is created and we can send it to IETF for comments -- to check if the solution meets the need of IETF.
- c) Mr. Takayuki Sato: In 10646, are the tag characters simply graphic characters?. It can be used by other protocols for specific purposes. If these are graphic characters the annex on describing their use may not be necessary -- it is more confusing.
- d) Mr. Michel Suignard: One of the comments from Japan - was addressed by stating that the tag characters are graphic characters and they may not have specific visual representation.
- e) Mr. Mike Ksar: Mr. Harald Alvestrand had informed me that what is in the current draft meets the IETF needs. He could not attend this meeting. Our goal is to get the CD balloted -- this will get us the formal feedback. We can send the draft for comments to IETF and to w3c formally or informally. It is unfortunate that Sweden could not attend the meeting today -- and the editor for part 2 is not going to be here beyond today.
- f) Mr. Erkki Kolehmainen: Since we do not have formal liaison with w3c for the moment, we should inform them informally. Since TIEKE is an official member of w3c, we can send the information to w3c directly.
- g) Mr. Michel Suignard: w3c may not be the interested party -- since XML / HTML have markup capability. Its use is only in the context where it is plain text only. IETF will be the most interested user community -- especially for the protocols that do not have markup or tagging capability.



### 9.1.2 Japanese comments

Mr. Michel Suignard: On whether or not we need a second WD, I leave it to WG 2. The functionality of characters in the context of 10646 is only limited to the encoding and to some extent we explain the properties of the characters. It is difficult for me to address these Japanese comments. One way to address the tag characters would be to add Graphic to their names -- and what one does with these tag characters would be outside the scope of 10646. Clause 9.3 wording is proposed to indicate that these tag characters do not have visible rendering.

#### Discussion:

- a) Mr. Takayuki Sato: From 10646 conformance point of view, if I use these characters simply as graphic characters without any graphic rendering, then will I be conformant to 10646?
- b) Mr. Bruce Paterson: We can make a statement in the front of Annex C - that these characters are graphic characters -- let us have visual rendering to be the same as ASCII characters without some boxes around them.
- c) Mr. Takayuki Sato: May be some one can use these characters for whatever they want.
- d) Dr. Asmus Freytag: We are getting away from a key requirement of one of the user communities -- if we do that we might as well kill the whole set. The key requirement from IETF was that they need these for tagging of languages. The other user community requirement is that these can be safely ignored / skipped in all other contexts. As a result we cannot have these characters to be having Visual Rendering. It may be even appropriate to call these Zero Width Tag characters. For printing the document or to otherwise indicate these in standards etc. we may use glyphs. The nature of the comments I hear are to ignore the wishes of the majority of the users.
- e) Mr. Michel Suignard: The text that I have proposed here has been used in other places in 10646 -- for example, clause 20 on special characters. These characters are similar to the special characters in the standard.
- f) Mr. Mike Ksar: In response to the user community -- the wording of the last sentence could be improved to state Annex C is an informative annex of one possible use. The requirement of the user communities could be expanded in Annex C. 10646 does not intend to define the tags or indicate such specific use.
- g) Mr. Takayuki Sato: Japan's comment was to ask for clarification of the user requirement -- 10646 should be more precise in terms of what the applications are. The current text needs clarification -- that it is graphic character, plus the context of use of these characters. The words "Language Tagging" is very attractive. Several people are attracted to these and they can invent their own way of doing things -- and that is the danger . If these characters are graphic, non-printable, do they have any widths etc.?
- h) Dr. Asmus Freytag: The naming of the character may not be the only thing. One of the central technical idea behind the proposal was -- as we are creating characters that are useful in some situation but ignorable in all other applications, such characters were kept in a separate block -- i.e. Plane 14 -- to make it easier for implementations. One suggestion would be to put a pointer to the sections that follow the code tables before the code tables section.
- i) Mr. Bruce Paterson: We can go further to copy in Annex F also the sense of "ignorability of the characters" for these also.
- j) Mr. Mike Ksar: Will the proposed disposition of comments - in principle - satisfy Japanese concerns?
- k) Mr. Takayuki Sato: We will see the final wordings -- the proposed direction in principle is acceptable.

Mr. Michel Suignard: Disposition to Japanese comment item 2.2 will be changed from "partially accepted" to "accepted in principle".

Section 3.1 - there will be some statements on Ideographs. Part 1 - clause wording - was aimed at a multicolumn charts. IRG has accepted the Single Column for Ideographs in part 2. The sources for these characters etc. will be identified by IRG and will be provided to the editor. At this point in time, we do not know how the sources of characters in Plane 2 will be indicated in part 2. My current preference is to have the information in on-line format than on paper.

**Discussion:**

- a) Dr. Asmus Freytag: I basically concur -- the method of publishing long lists is not serving useful purposes. It should be replaced by on line method of dissemination. We could take the IRG request that WG 2 take a decision on the working assumption. I propose that WG 2 should opt for the online version as the preference.
- b) Mr. Zhang Zhoucai: The source information / mapping information -- would it be included in the standard, and if it is included would it be normative or not? The reference information for the source etc. should it be detailed or general. We have for each ideograph the information available.
- c) Mr. Mike Ksar: I would like to take the questions to ITTF. I need to get the JTC 1 input on -- can we publish a normative part of 10646-2 on line. If we do not go that way we will end up in putting only the mapping tables -- numbers. The reference information is Normative. The question to have that part only available on line is still open.
- d) Mr. Michel Suignard: Super CJK has a list of references to the sources. We should use the same format. Extension B is not only referring to only existing encoding, but also to sources such as dictionaries.
- e) Dr. Umamaheswaran: The recommendation that came out from the Fukuoka meeting was to keep as much information as possible.

**Disposition:** Mr. Michel Suignard will recommend to IRG the preferred form for handling the Ideograph normative sections for Part 2.

Comments 3.1 -- accepted in principle (reword from Partially accepted).  
Comments 3.2 and 3.3 are accepted.

A new annex on Sources of Characters -- is being created with the help of Mr. Michael Everson. Part 1 has a number of annexes. We may not need all the annexes of part 1. For example CJK unification rules could be referenced to Part 1. The sources of characters used for CJK unification for part 2 will not be the same as for part 1. One has to be careful about not losing any precision.

Musical symbols -- these characters do have semantics. The names of these symbols are indicative of its semantic to the user - but is outside the scope of 10646.

Esc sequences - part 1 already covers all of 10646. Collection id mechanisms can be used for subset identification.

Plane 14 - will be called Special Purpose instead of General Purpose plane.

Clause 4 - will have a reference to UTF-16 and UTF-8 from Part 1 as possible encoding forms.

**9.1.3 UK Comments:**

Mr. Michel Suignard: Comment 1 - Name of the Byzantine musical symbols - would like to retain the upper, middle, lower - attributes from the original Greek contribution.

**Discussion:**

- a) Mr. Bruce Paterson: An annotation like u, m, l in the name would be one way. A note to indicate the notation of u, m and l will suffice.
- b) Mr. Michael Everson: There are several other aspects of these characters besides the upper etc. like combining etc. that have to be addressed also.
- c) Dr. Asmus Freytag: From the Unicode perspective when we look at Byzantine symbol set, there seems to be enough concerns about these that we may have hold back on this script.

Mr. Mike Ksar: The UK comment is what is under discussion, all the other aspects are out of order at this point in time.

**Disposition:** Add a notation on u, m and l for the names of Byzantine musical symbols.

Mr. Michel Suignard: Comment 2 - non spacing property. We also need additional information on combining properties for these symbols.

Accept UK comment in principle. Await additional information from Greece.

**Action item:** Comment 3 to 5 - Messrs. Michel Suignard, Michael Everson, and Bruce Paterson to get together and prepare disposition of comments. All editorials are accepted.

### 9.1.4 US Comments:

Mr. Michel Suignard: Comment 1 - requesting reserving a range for Alternative Format Characters.

#### Discussion:

- a) Dr. Umamaheswaran: We could use the Block name mechanism to indicate these are reserved for Alternative Format Characters - an Ignorable Zone.
- b) Dr. Asmus Freytag: The concept is also important -- the characters in this range can be ignored under normal processing.
- c) Mr. Michael Everson: Would like to get some technical documentation on why these characters are special, why these can be ignored etc.
- d) Mr. Michel Suignard: The block name concept could be used to deal with the US comment.
- e) Mr. Takayuki Sato: The block name alone will not satisfy the second comment from US. The conformance clause of Part 1 has explicit statement about unassigned code points. If US comment 2 has to be accepted, some additional clarification / wording of conformance for unassigned code points from this special block needs to be written.
- f) Dr. Asmus Freytag: There is already a UTR 7 available, describing the alternate format characters.
- g) Mr. Bruce Paterson: Since one would need blocks of different kinds of characters we should use the term zone. The term Ignorable Character zone is too risky - invites question under what conditions these are ignorable etc.
- h) Dr. Asmus Freytag: The term "Alternate Format Characters" is what has been suggested. Zone definition from Part 1 has the necessary property for the purposes cited.
- i) Mr. Michel Suignard: A new zone U-0000..U-000E0FFF will be defined. Definition of Zone in part 1 has see clause 8 -- (Mr. Bruce Paterson will change see for example clause 8).
- j) Mr. Michael Everson: One could define collections for the proposed range of alternate format characters in Plane 0 to identify the requested range of alternate format characters.

Compatibility Characters - in the scope of Part 2 - graphical characters already encoded in Plane 0 are not duplicated in Plane 1. We have to ensure that it is clearly understood. We have removed two characters from Extension A because these were in the compatibility characters. There are 12 unique characters, which are not clearly included anywhere.

I would like to include these in Extension B collection -- no duplicate encoding of the existing Plane 0 characters. Mr. Michel Suignard to work with IRG Rapporteur on this item.

**Disposition:** Mr. Michel Suignard will prepare a revised disposition of comments. *The relevant resolution M37.11 is given below.* Before we process part 2, we need to discuss the repertoire issue (see later sections).

**Action item:** Circulate UTR 7 on Alternate Format Characters for information to WG2.

#### Relevant resolution:

##### M37.11 (2nd WD of 10646-2)

**Unanimous**

WG 2 accepts the disposition of comments in document N2087R on the 2nd WD of 10646-2 and instructs its project editor to prepare the text for CD 10646-2 with assistance from the contributing editors, including the Mathematical Alphanumeric Symbols (see resolution M37.9 in section 10.2 on page 37) and the CJK unified ideographs extension B (see resolution M37.10 in section 10.3 on page 37) in the CD. WG 2 further instructs its project editor to submit the CD document to SC 2 secretariat for a CD ballot with unchanged target dates.

### 9.2 Graphic representation of the roadmap

#### Input documents:

**N2046** Graphic representation of the Roadmap to Plane 1 of UCS – an update of N1955; Everson; 1999-08-16

Mr. Michael Everson: The CJK Extension B in plane 2 bleeds over the 256, 4096 character boundaries.

**Disposition:** Extend the Plane 2 CJK Extension B boundary in the roadmap for plane 2.

## 10 Repertoire issues – 10646-2

### 10.1 Feedback on hieroglyphs

#### Input documents:

N1944 Encoding Egyptian Hieroglyphs in Plane 1; Everson; 1999-01-09

N2025 Feedback on hieroglyphs proposal N1944; Germany; 1999-03-24

N2096 Germany's feedback on N1944 – Hieroglyphs (update of N2025-1); DIN, Germany; 1999-09-13

Mr. Marc Küster summarized the document N2096 from Professor Dr. Schenkel. The study of Egyptian hieroglyphs is still evolving. The current proposal in document N1944 is based on some incomplete work. Any attempt to standardizing these glyphs without consulting with the current experts working on the hieroglyphs could produce results which could harm the usability of these scripts in the field. A suggestion to use the registry mechanism for the registration of the hieroglyphs is made.

#### Discussion:

- a) Mr. Mike Ksar: Does a registration mechanism exist? You have suggested that some group has to distinguish this set into characters, glyphs etc.
- b) Mr. Michael Everson: The contribution from Germany seems to be gloomy about the hieroglyphs. There is no particular hurry for encoding this set. Mr. van den Berg is not particularly opposed to the approach we have taken in the proposal for including this in UCS. There is some academic discussion within the UTC also. We can take a look at the architectural aspects of encoding these symbols in UCS. The repertoire question is still not mature. The exercise itself has been fruitful.
- c) Dr. Asmus Freytag: In the process we should not forget one step. One thing we have to inform the academic community that the architecture issues about encoding should be addressed right away. The actual repertoire may not be stable at this point. We should request German national body to get the academic community to participate in the discussion.
- d) Mr. Mike Ksar: This was the first submittal and people were concerned that the proposal is being rushed through including Germany. We have to work together with the appropriate experts, and come up with a mature proposal, before we consider the set of symbols to be included in part 2. We cannot wait till someone publishes a book in 2010. We want the work to continue.
- e) Mr. Marc Küster: There is no single authority. There is some academic dispute in these areas and only within the academic field can a consensus be reached on this subject. There is no intention to encode this by the commenter and there is no principal opposition to include these characters in 10646. This field is still in the academic arena, which is immune to the coding world. I am happy to be the go between the academic world and this committee to keep the discussion going. It is resource restriction that prevents faster analysis and creating more mature repertoires. Unless this project is given high priority progress will be slow. There are about 50000 symbols in the current dictionary. The current data base is quite large.
- f) Dr. Asmus Freytag: I would like to reiterate --in some respects, the situation of hieroglyphs is not unlike ideographs. We have a large set and it is relatively difficult to arrive at a consensus. The idea of subsetting the large repertoire should be part of our thinking. Again the critical question is one of architecture. Characters can be added later on. Another reason is that there may be other scripts with similar architectural properties that we could minimize the implementation of hieroglyphs and others by capitalizing on the common properties. We should address the architectural issues early.
- g) Mr. Marc Küster: It is not problematic to add characters. The basic catalog / repertoire of characters has to be stable and this is not the case today. Architectural issues could be discussed. The databases of these characters crosses several fields.

**Disposition:** Experts from Germany, Ireland and the Unicode Consortium (and other interested parties) are invited to meet and continue to work on this topic. If a progress report is not made by the experts periodically the script proposal may disappear.

**Action item:** Mr. Marc Küster is invited to contact the experts, encourage them to participate and report to them on the topic, and to supply the contact names etc. to Messrs. Michael Everson and Rick McGowan.

## 10.2 Proposal to encode mathematical alphanumeric symbols

Input document:

N2086 Proposal to encode mathematical alphanumeric symbols; Sargent/Beeton; 1999-09-02

Dr. Asmus Freytag: We followed the incremental approach of adding mathematical symbols in UCS. We always had a mathematical subset in 10646, a number of operators and letter like forms. The Unicode Consortium and the publishers of mathematical text are working together to arrive at a set of characters suitable for mathematical publications. There are two proposals -- one of them is distributed as document N2086. The other contribution is still being worked on. The intent of the other part is to submit as amendments to 10646-1 -- consists of mostly operator symbols. Document N2086 is submitted as letter-like symbols for inclusion in 10646-2. Page 4 shows an example of the change in the meaning of a formula by change in the shape of a character. The mathematical notation requires the preservation of the style of the characters. Unlike the complete Latin alphabet, the mathematical set consists of a set of Greek and Latin letters without any accents. The proposal is to include the set of alphanumeric symbols in different styles in Part 2. The set works out to be slightly less than 1024 characters. Of these 20 are already encoded in the BMP. Others are proposed to be included in Part 2. This is the first proposal for feedback. Please note that this is tied to another companion proposal that will be made available later.

### Discussion:

- a) Mr. Mike Ksar: In conjunction with inclusion of this in Part 2, is there a dependency of adding an amendment to part 1?
- b) Dr. Asmus Freytag: The work of adding to different parts can be asynchronous. But accepting one part and not another will not meet the end user needs.
- c) Mr. Michel Suignard: There are some errors in the proposal. Remove U+03C1 from page 4 last paragraph. When would you need this as part of Part 2 -- do you need it in the CD draft?
- d) Dr. Asmus Freytag: Yes - would prefer to add to Part 2. I do have the necessary true type fonts and can create the code charts relatively easily.
- e) Mr. Michael Everson: I have had discussion with Mr. Murray Sargent - the originator of this proposal. Several comments have been exchanged. Some of the character names should be changed. The roadmap for Plane 1 already contains these mathematical symbols.

**Disposition:** The current project plan of SC 2 shows the date for CD 10646-2 as 99/11. Mr. Michel Suignard is to work with the proposer of this set and incorporate the refined proposal into the CD.

**Action items:** Fonts to be provided to the editor by Dr. Asmus Freytag. Editor to work with the proposer Mr. Murray Sargent to get the relevant information for the complete proposed set.

### Relevant resolution:

#### M37.9 (Mathematical alphanumeric symbols)

**Unanimous**

WG 2 accepts the proposal for 991 (subject to verification of this number) new mathematical alphanumeric symbols in document N2086, for inclusion in 10646-2, in the range D400 -- D7FF in Plane 1. The project editor is to select the appropriate character names and block name in the preparation of the text for inclusion in part 2.

## 10.3 CJK Unified Ideographs - Extension B

Input document:

N2105 CJK Unified Ideographs Extension B – WD 6.0 (IRG N 675) – few pages which does not include all pages of code charts; IRG; 1999-09-13

Only five pages are included in document N2105. Complete code charts can be made available from the convener.

Mr. Michel Suignard introduced the document. The question is about presentation of the document. The starting point of the proposal is position 0100. I would prefer to some extent all the symbols to go to plane 1, leaving plane 2 for Han ideographs.

### Discussion:

- a) Mr. Mike Ksar: Was there a need for such symbols expressed in the IRG?
- b) Mr. Zhang Zhoucai: The original idea was to use these for ideographic look alike symbols. There is no concrete proposal at this time. It was discussed in IRG and has not been formalized. It was mimicking the current CJK block and current national standards. There are no concrete reasons not to start at 0000. In processing the 1million ideographs, the information we have is that there are less than 100 ideograph-like symbols. The other

symbols should not be treated as ideographs. Based on that information we reserved the hex 100 positions.

- c) Mr. Michael Everson: The current roadmap for plane 1 goes from row 1 to row 8. There is enough room at the end and could easily be moved up the 100 positions.
- d) Dr. Asmus Freytag: There are several symbols that you should be aware are not ideographic like - but are also used for Mathematics etc. There are some symbols which are clearly extensions of the Ideographic writing system and they are not used with non-Han. Such symbols which do not have multiple script uses should be kept in plane 2. These will behave only like ideographs and should be kept with the ideographs. Others like weather symbols etc. should be kept in Plane 1. If the BMP block for these characters were not full I would have suggested these to be in plane 0.
- e) Mr. Takayuki Sato: Most of these symbols originated from the ideographic standards. If these are to be used for something else, these should be in Plane 1. Only symbols which behave like ideographs -- like what Dr. Asmus Freytag says -- and we agree that these are ideographs we can include in plane 1. We can start encoding these from the bottom if needed. It will also help in keeping the scope of the part 2 for plane 2.
- f) Mr. Michel Suignard: We may have to change the name of plane 2 -- CJK Unified -- may have to become CJK. It is becoming increasingly important that this encoding becomes stable.
- g) Dr. Asmus Freytag: The name of plane 2 may have to be changed. Having a fixed area also keeps a lid on them (?)
- h) Mr. Mike Ksar: One of the suggestions -- to reduce the number of changes the editor has to do - was to drop the UNIFIED from the title of Plane 2. There are conflicting views -- the ideograph-like symbols (zone) -- where these should start. At the top or the bottom of the plane. There is some concern about including possibly compatibility characters in plane 1.
  - Can we drop the word Unified from the name of plane 2 -- Extended CJK Ideographs and Symbols? This would reflect the plane 2 can possibly contain the Unified Extension B - block, compatibility characters or symbols -- supplementary ideographic plane.
  - Where should we start -- at 0000 or 0100?
- i) Mr. Zhang Zhoucai: In my experience there will be less than 100 ideographic symbols.
- j) Mr. Michael Everson: I withdraw my suggestion to move this up because of the additional work for IRG.
- k) Mr. Takayuki Sato: The bottom starting point is much safer -- past history has indicated that this set can grow.
- l) Mr. Mike Ksar: To avoid additional work for IRG editor, we keep the starting of the ideographs at 0100 in plane 2. When there are proposals for Ideographic Symbols etc, in plane 2, then we can decide where these should go -- in the first 0100 or some other area.
- m) Mr. Zhang Zhoucai: I have a question to WG 2 experts - how many lines and columns should we use per page for the charts for extension B printing?
- n) Dr. Asmus Freytag: For the edition 1, we found 11 columns was selected for the Hangul charts. Are you using Bitmaps or TT fonts? At the time of final publication we may end up in changing the formats, process etc.
- o) Mr. Zhang Zhoucai: Initially bit-map fonts, final version can be using TT fonts.
- p) Mr. Bruce Paterson: The number of columns per page is limited to 11 columns because of G=00, P=02 occupies white space. We could move the position G=00 P=02 to top.
- q) Mr. Michel Suignard: There is a possibility to move G=00, P=02 to top of the title.
- r) Mr. Mike Ksar: Content: Is the content of Extension B stable enough to go for CD? Yes. The format to be used is 128 (block of 16 rows and 8 columns) per page.

**Disposition:** Accept the Extension B proposal from IRG for inclusion in Part 2. Change the name for plane 2 in Part 2. See resolution M37.10 below.

**Relevant resolution:**

**M37.10 (CJK unified ideograph extension B)**

**Unanimous**

WG 2 accepts the proposal for 42,807 CJK unified ideographs of extension B in document N2105 from the IRG, for encoding in plane 2 of 10646-2, in the range 0100 -- ABFF. The WG 2 notes that the IRG contributing editor has provided the code charts organized as 16 rows by 8 columns. WG 2 further accepts dropping of the word "unified" from the name of plane 2. The project editor is to select the appropriate names for the characters and the block name in the preparation of the text for inclusion in part 2.

## 10.4 Cuneiform scripts

### Input documents:

N1639 Proposal to encode Old Persian Cuneiform in ISO/IEC 10646-2; Everson; 1997-09-18  
N2097 Germany's feedback on Semitic languages – update of N2025-2; DIN, Germany; 1999-09-13

Mr. Marc Küster summarized document N2097. The encoding of cuneiform scripts and others is being questioned. The user community is small and whatever information exchange is being done on these scripts is using transliteration. We could discuss this in detail in a future meeting.

**Action item:** Mr. Michael Everson can discuss this with the commenter.

## 11 IRG status and reports

### 11.1 IRG resolutions

#### Input document:

N2110 IRG Rapporteur's Report; Zhang; 1999-09-14

Mr. Zhang Zhoucai presented the report in document N2110 (*not repeated in these minutes*).

Mr. Mike Ksar: I would like thank the excellent work of IRG members in their work on Extension A and Extension B, and continued work of Super CJK. *See relevant resolution M37.20 in section 15.2 on page 43.*

The size of the super CJK is large and we have to deal with this within the IRG -- to be able to work electronically. The Super CJK has been posted on a public web site at Sun - posted by Mr. Hideki Hiura. It can be made available to whoever needs it in IRG as well as elsewhere in WG 2. The web site URL-s are:

<http://docs.sun.com/contrib/ISO/IEC/JTC1/SC2/WG2/IRG/L2/scjk5.zip>,  
<http://www.docs.sun.com/contrib/ISO/IEC/JTC1/SC2/WG2/IRG/L2/scjk6.zip>;  
<http://www.docs.sun.com/contrib/ISO/IEC/JTC1/SC2/WG2/IRG/L2/scjk7.zip> (142 megs)

The date of the next meeting IRG-14 is December 6 to 10 in Singapore to discuss extension B, Super CJK and compatibility. The following IRG meetings are scheduled for May 15-19 2000 in Taiwan, and November 2000 in Korea. WG 2 approved these dates. *See relevant resolution M37.18 in section 14.4 on page 43.*

Mr. Zhang Zhoucai: I do have a concern. The Unicode Consortium is creating its CJK charts in a single column format using the Chinese input. I am concerned that these have not been reviewed by IRG members. I am concerned that the two standards may be out of synchronization because it has not been checked.

Mr. Mike Ksar: I would encourage the IRG members and the rapporteur to work with the Unicode Consortium members towards avoiding possible errors.

**Action item:** IRG members and UTC members to work together to avoid inconsistency in the CJK charts between Unicode 3.0 and 10646-1: 2000.

## 12 Defect report

### 12.1 Thailand

#### Input documents:

N2026 Feedback on Thai script; Thailand; 1999-04-09  
N2035 WG 2 response to Thailand's defect report (N2026); Paterson; 1999-05-20  
N2036 Thailand's feedback on response (N2035) to defect report (N2026); Thailand; 1999-06-16

Mr. Bruce Paterson: There were fax documents received from Thailand. The request from Thailand was to change the names of some Thai characters. Some of these were for minor changes - adding additional space etc. In other cases the proposal was to change the names. We have proposed annotations for helping with two of these in document N2035. Thailand has responded with more requests in document N2036. We have introduced more annotations to characters -- these are incorporated in document N2047 -- the charts from AFII. The same topic may come up again in Latin-Thai in WG 3. The understanding at the moment is that the names to be used in WG 3 will also be the same as used in WG 2.

**Discussion:**

Mr. Johan van Wingen: I understand the response from Mr. Bruce Paterson because it is in line with our existing policy. If there are problems with names introduced due to errors in creating name lists in 10646 etc. there should be some methodology to be able to deal with silly errors -- other than via annotation route only. Otherwise, silly errors may be preserved into eternity.

**Disposition:** Accept editor's proposed response. *See relevant resolution M37.7 below.*

**Relevant resolution****M37.7 (Defect report on Thai character names)****Unanimous**

With reference to documents N2026, N2035 and N2036, WG 2 accepts its project editor's response to add annotations on the character names as the proper solution, and instructs its editor to process it further.

**13 Liaison reports****13.1 The Unicode Consortium**

Dr. Asmus Freytag: I want to invite all of you to direct your web browser to the Unicode site -- [www.unicode.org](http://www.unicode.org). We have just yesterday released the electronic parts of Unicode 3.0. It includes the Unicode database. The text of the book will take some more time. Hopefully, I will be able to get you tell you that the printed version is available at the next meeting. The repertoire of 10646-1: 2000 and Unicode 3.0 are identical. We are also creating a large number of technical reports. In general, if you are interested in implementation issues related to use of the standard, I recommend you keep yourself updated on these technical reports from the Unicode site. You can go further and contribute if you choose, by becoming a member.

Till a character was encoded, no other work could be done. Now the emphasis is on not so much on adding new characters, the majority of the work in the Unicode Technical Committee is work on questions like -- collations, what happens when you put the data in markup languages etc. The implementation related questions are taking more attention. There are more people engaged in updating the character sets versus addressing the implementations. The ability to keep the standard updated etc. will be reduced over time. We are not in the wonderful world of 1990. Now we have to be more careful about the impact on existing implementations etc.

**Action item:** national bodies / liaisons to take note of the Unicode web site [www.unicode.org](http://www.unicode.org) to get the latest on Unicode 3.0 contents and the various Technical Reports.

**13.2 W3C****Input document:**

**N2081 Request for liaison from W3C-I18N; W3C-I18N; 1999-09-06**

Mr. Mike Ksar: Document N2081 is a request for establishing liaison relationship with WG 2. If we agree we can send the recommendation that we agree to establish a liaison relationship.

**Discussion:**

- a) Mr. Keld Simonsen: Their distribution of documents is usually restricted to internal membership whereas our documents are publicly available. We may have to deal with some of the difficulty concerning the formats, making them available on our site. Our Working Documents of WG 2 should be on our web site.
- b) Mr. Mike Ksar: Their documents become publicly available once it goes public. I will take the concerns to w3c working group.
- c) Dr. Umamaheswaran: The so called public documents -- one can comment on these also. You should also be aware that the w3c working group has to review its charter and reconfirm itself every year.
- d) Mr. Erkki Kolehmainen: Once in a while the documents go out for public comments. There will not be any problem distributing these.
- e) Mr. Sven Thygesen: Is it possible to exchange the links only?
- f) Mr. Mike Ksar: At this point in time, the convener can act as the liaison representative from The category C liaison will be from SC 2 to w3c-i18n-wg.

**Action item:** Convener to communicate to SC 2. *See relevant resolution M37.15 below.*



**Relevant resolution****M37.15 (Liaison request from W3C-i18n-WG)****Unanimous**

WG 2 accepts the offer to establish the Category C liaison from W3C-i18n-WG in document N2081, and appoints its convener Mr. Mike Ksar as the liaison representative from WG 2. WG 2 requests SC 2 to process this liaison and the nomination.

**13.3 IETF****Input document:****N2083** Liaison report from IETF to SC 2; IETF/Simonsen; 1999-09-07

Mr. Keld Simonsen presented the brief IETF liaison report in document N2083.

Item 3 - was an RFC on UTF 16, UTF 16 LE and UTF 16 BE. The concern on this was the terminology used in this document is aligned with Unicode instead of 10646 terminology.

**Discussion:**

- a) Mr. Erkki Kolehmainen: The final call closed last week. The reason for using Unicode terminology was simply that the Unicode standard was more widely available.
- b) Mr. Mike Ksar: I would like to encourage IETF to continue to use the ISO terminology wherever it is available. In this instance, we could encourage them to at least equate the terminology between the Unicode and 10646 for their use. I would like you to continue to contribute to IETF towards encouraging them to use ISO terminology.

**13.4 CEN/TC 304**

Mr. Erkki Kolehmainen reported verbally as the cooperation officer from CEN/TC 304. CEN/TC 304 is in the process of being streamlined. The new business plan finished round 1 of comments, and has been sent to BT for further processing. There is lot of turmoil regarding that TC. Its role would be to work on European related localization aspects and input that work into other organizations. It will not be creating duplicates of ISO standards -- but specific standards for Pan-European use. Once the MES is approved as a CWA there will be a request for collection identifiers for part 1.

Mr. Mike Ksar reported verbally as the liaison from WG 2 to CEN/TC 304. I have been attending these meetings. There are inputs not only related to the collections, but also to other documents such as the Character Set Guide. It is out for national ballots. Unfortunately they could not take text of document N2005 and incorporate into the guide document before the deadline. They did not have time to do it. I volunteered to do it -- but is an action item on me. National bodies who are members of CEN/TC 304 can also make comments in line with aligning the text of the Character Set Guide with the text of the second edition of 10646.

**13.5 AFII****Input documents:****N2030** Progress Report on Printing ISO/IEC 10646-1; AFII, Freytag; 1999-06-10**N2047** AFII Liaison Report – Printing 10646 non-Han; AFII; 1999-08-16

Dr. Asmus Freytag: AFII has completed the work of printing the charts for 10646-1: 2000. Now that work has been completed, AFII has gone out of business. AFII has withdrawn from the Registration Authority for Glyphs. JTC 1 has to take a decision. During my tenure of two years with AFII, we have zero requests. During the previous four years there were no PAID registration requests. The observation is that there is no justification to continue with a Registration Authority function.

Mr. Mike Ksar: The work that was done for printing the 2nd edition etc. has been transferred to the Unicode Consortium. AFII also had a process to register Glyphs. At the moment, there is NO registration authority for Glyph Registry. The new email id for AFII is [AFII@unicode.org](mailto:AFII@unicode.org).

WG 2 expresses its thanks for the support provided by AFII in the effort of preparing the non-Han charts for the second edition of 10646-1. See relevant resolution M37.21 in section 15.2 on page 43.

## 14 Other business

### 14.1 Web site review

Mr. Mike Ksar: I encourage everyone to send softcopies for posting to the web site. The preferred format is .pdf. A word document could be sent to me. Only an exceptional basis, I will do the scanning and convert to softcopy.

#### Discussion:

- a) Dr. Asmus Freytag: One word of caution -- be careful that the link methodology should be used for documents in the Unicode site, and backward versions are made available also.
- b) Mr. Keld Simonsen: The specific documents that are given to the working group should be on the WG 2 site as a separate copy.
- c) Mr. Mike Ksar: Documents created by other organizations should not be controlled on our web site. The cleanest way to refer to publicly maintained documents is via links.
- d) Mr. Erkki Kolehmainen: In the case of Unicode, there is a link to the document presented at the meeting and another one to latest.
- e) Dr. Asmus Freytag: The particular version of the document submitted to WG 2 must be referenced. That in turn can point to the latest link.
- f) Mr. Marc Küster: I have no personal opinion on whether or not a separate copy should be maintained on WG 2 site. However, if it needs to be done we can use the .pdf methodology and preserve the images, pictures etc.
- g) Mr. Keld Simonsen: HTML is a good format to use also.

**Action item:** National bodies and liaisons to take note: If delegates / contributors want their documents to be circulated widely they are requested to send their documents in electronic form. If a document contains characters that cannot be supported using Latin based word processors or HTML files, the pdf form is preferred. Otherwise, a Word 6 or HTML document would be acceptable. Word 6 is standardized at the SC level.

*See relevant resolution M37.23 of appreciation in section 15.2 on page 43.*

### 14.2 ETSI

#### Input document:

**N2118 Using 10646 in ETSI standards; Karl Ivar Larsson; 1999-09-15**

Mr. Karl Ivar Larsson: There was a meeting of European Telecommunications Standards Institute, ETSI, last week. It has some information in it and WG 2 should look at it and possibly formulate a response to ETSI.

Special Mobile Work Group which works with GSM service. They have been using coded character standards. I have made presentation to their meeting in Helsinki -- that they should align their work with that of ISO coded character set standards. I can work with them to coordinate the work. There are some 300 million GSM devices and the coding of the SMS are not coordinated with the ISO work. I have asked them to look at the UTF-8. At the moment there is no liaison between ETSI and SC 2. ETSI could create a standard in 7 hours, and they revise it 3 or 4 times in a year.

#### Discussion:

- a) Mr. Mike Ksar: I would like to see they have our standards in their hand, so that they can use them as base standards in their work. I would suggest that Karl-Ivar can take an action item - on behalf of WG 2 -- to inform ETSI on the availability of the 10646-1: 2000 (to come) and Unicode 3.0.
- b) Mr. Erkki Kolehmainen: At the ETSI level, it is not national standards body representations. It is the industry participation. What they are looking for specific guidelines for using the standards in their situations.
- c) Dr. Asmus Freytag: We can continue to encourage ETSI to use 10646 standard -- either in UCS 2 or UTF 8 form - in their work. If they are looking for specific guidelines, they should be directed to contact the Unicode Consortium. Situation-specific recommendations can be made with a reasonably fast turn around capability.

**Disposition / Action Item:** Mr. Karl-Ivar Larsson is invited to draft a response document and work with Mr. Mike Ksar to review. The response can contain some WG 3 related information also. *See relevant resolution M37.14 below.*

**Relevant resolution:**

**M37.14 (Response to report on ETSI meeting)**

**Unanimous**

WG 2 invites Mr. Karl Ivar Larsson to prepare an appropriate response to document N2118 on harmonizing ETSI GSM SMS standard with 10646 in consultation with the convener and forward it to ETSI.

### 14.3 Linux

Linux is 7 years old now. CD-ROMs containing the latest Linux and associated software are available from Mr. Keld Simonsen. Information on Linux from SSLUG (Skåne / Sjælland Linux User Group) was made available. Mr. Markus Kuhn is doing work on getting 10646 supported in Linux. There is a C compiler capable of compiling UCS encoded source files under Linux. Mr. Hideki Hiura is the co-chair of a new internationalization group for Linux that has been formed.

### 14.4 Future meetings

There was some discussion on whether WG 2 should meet in March 2000. In view of the progression of the CD 10646-2, it was decided to have the March meeting to prepare the disposition of comments on the CD ballot which will conclude before March 2000. *See relevant resolution M37.18 below.*

**Relevant resolution:**

**M37.18 (Future meetings)**

**Unanimous**

WG 2 confirms the following future meeting schedule:

- Meeting 38: 21--24 March 2000, Beijing, China
- Meeting 39: 11-15 September 2000, Greece (US as fall back) (along with SC 2 and SC 2/WG 3 meetings)
- Meeting 40: March 2001 - US (subject to confirmation)

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

- IRG 14: 6--10 December 1999 in Singapore
- IRG 15: 15--19 May 2000 in Taiwan
- IRG 16: November 2000 in Korea.

## 15 Closing of the meeting

### 15.1 Approval of resolutions

**Output document:**

**N2104R Resolutions of meeting 37; WG 2; 1999-09-21**

Draft resolutions prepared by the editing committee – Messrs. Mike Ksar, Bruce Paterson, Michel Suignard, Takayuki Sato, and Umamaheswaran, were discussed and approved with some modifications. Errors in the liaison relationship and in names list were pointed out; the errors were all corrected in the final output document N2104. A revised version of document N2104 -- with one additional Appreciation resolution -- has been posted to the WG 2 web site.

Canada, China, Denmark, Finland, Germany, Ireland, Japan, Netherlands, Norway, Poland, Romania, Sweden, UK, USA, AFII (Liaison), CEN/TC 304 (Liaison), the Unicode Consortium (Liaison), and Lithuania (Guest) were represented when the resolutions were adopted.

### 15.2 Appreciation

The following resolutions of appreciation M37.19, 20, 21, and 22 were adopted by acclamation. Resolution M37.23 was added post-meeting.

**Relevant resolutions:**

**M37.19 (Appreciation to project editor and contributors)**

**By Acclamation**

WG 2 thanks its project editor and all contributing editors on the successful completion of Amendments 17 (Han vertical extension A), Amendment 18 (Miscellaneous symbols including EURO) and Amendment 21 (Sinhala script).

**Relevant resolutions:****M37.20 (Appreciation to IRG)****By Acclamation**

WG 2 thanks the members of IRG, the IRG editor and its rapporteur for their timely and valuable contribution on CJK-related items for inclusion in the second edition of 10646-1 and in the preparation of the first CD of 10646-2.

**M37.21 (Appreciation to AFII)****By Acclamation**

WG 2 thanks AFII, for their excellent support in preparing and printing the camera ready copy of the non-Han code tables for the next edition of 10646-1.

**M37.22 (Appreciation to the host)****By Acclamation**

WG 2 thanks its hosts, Dansk Standard, DKUUG, Kommunedata, and their staff for hosting the meeting, for providing excellent secretarial and administrative support, and for their kind hospitality.

**M37.23 (Appreciation to DKUUG for web services)**

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.

**15.3 Adjournment**

The convener closed the meeting at 11:20h on Thursday, 1999-09-16.

**Action item:** Convener to be reminded to include all carried forward items in the next meeting agenda.

**16 Cumulative list of action items**

*Note: WG 2 experts, national bodies and liaison organizations are encouraged to verify the action items against the final list given below – and inform the convener Mr. Mike Ksar, and the recording secretary, Dr. V.S. Umamaheswaran of completions with the relevant document numbers and of any corrections.*

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

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

**16.2 Outstanding action items from meeting 34, Redmond, WA, USA**

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
<b>AI-34-4</b>	<b>Editor of 10646-2: Mr. Michel Suignard</b>	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
<b>a</b>	RESOLUTION M34.1 (DTR 15285 Character Glyph Model): ... .. WG 2 further instructs its project editors for ISO/IEC 10646 Part 1 and Part 2 to add TR 15285 as a reference to the next edition of ISO/IEC 10646-1 and to the WD of ISO/IEC 10646-2. M35, M36 and M37 – in progress.	<b>M37:In progress</b>
<b>b</b>	RESOLUTION M34.14 (Characters for inclusion in WD of Part 2): WG 2 accepts the following: Plane 14 Characters for Language Tags according to document N1670. ETRUSCAN script in the range Plane 1 0200 to 022F, in accordance with document N1580. GOTHIC script in the range Plane 1 0230 to 024F, in accordance with document N1581, with the last three characters in that document deleted from the repertoire. WESTERN MUSICAL SYMBOLS in the range Plane 1 D100 to D1FF, starting at D103, in accordance with document N1693. and instructs its project editor to include the above accepted characters in the working draft of 10646-2. M35, M36 and M37 – in progress.	<b>M37: In progress</b>
<b>c</b>	to update the working draft in document 1717 - accommodating the various comments during meeting 34, and to draft some text for inclusion in Part 1 referring to the architectural statements that need to be included in Part 1. M35, M36 and M37 – in progress..	<b>M37: In progress</b>
<b>d</b>	RESOLUTION M34.18 (Collection Identifiers in Parts 1 and 2): WG 2 accepts the recommendations of the ad hoc on collection identifiers in document N1726, and instructs the ad hoc on Principles and Procedures to include these in the Principles and Procedures document (N1502R). WG 2 further instructs its	<b>M37: In progress</b>

Item	Assigned to / action (Reference Meeting 34 Resolutions in document N1704R and Unconfirmed Meeting 34 minutes in document N1703 - with the corrections noted in section 3 of document N1903).	Status
	project editors to take note of these recommendations for adoption in Parts 1 and Part 2. M35, M36 and M37 – in progress.	
<b>AI-34-13</b>	<b>Irish national body (Mr. Michael Everson)</b>	
<b>h</b>	is invited to create a "Defect Report" on changing the block name IPA Extension to IPA Latin Extension. M35, M36 and M37 – in progress.	<b>M37: In progress</b>

### 16.3 Outstanding action items from meeting 35, London, UK

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

### 16.4 Outstanding action items from meeting 36, Fukuoka, Japan

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above),	Status
<b>AI-36-2</b>	<b>Convener - Mr. Mike Ksar</b>	
<b>a</b>	per resolution M36.21, to forward document N1984 to SC 2 for forwarding to the Armenian NB in response to their letter dated 1998-11-16 (in document N1981 – SC 2 N3222) (was delegated to Mr. Michel Suignard during the meeting). M37 - in progress.	<b>M37: In progress</b>
<b>h</b>	to get the front page of FDAM-17 and a few sample Han code tables from CJK Extension A for WG 2 distribution; it has been sent for JTC 1 ballot as an SC 2 document SC 2 N3220.	<b>M37: Completed ????</b>
<b>AI-36-3</b>	<b>Editor of 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson</b>	
	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:	
<b>l</b>	M36.13 (Technical Corrigendum on Collection ID for BMP of 2nd edition): WG 2 accepts the proposed fixed collection identifier in document N1983 (collection 302) for the fixed repertoire of BMP of the second edition of ISO/IEC 10646-1, and instructs its project editor to prepare a technical corrigendum to Annex A, for inclusion with the Technical Corrigendum in resolution on 'Hangul names list' above. M37 - in progress.	<b>M37:In progress</b>
<b>r</b>	M36.19 (New character bucket M36): With reference to document N1941, WG 2 accepts the proposed Triangular Overlay character, with the new name COMBINING ENCLOSING UPWARD POINTING TRIANGLE, with its proposed shape, and allocates it the code position 20E4 in the BMP. WG 2 instructs its project editor to create a new list of characters accepted for processing beyond the 2nd edition of ISO/IEC 10646-1. M37 - in progress.	<b>M37: In progress</b>

Item	Assigned to / action (Reference Meeting 36 Resolutions in document N2004 and Unconfirmed Meeting 36 minutes in document N2003 - with the corrections noted in section 3 above),	Status
s	to work with the IRG editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999. M37 - in progress.	M37: In progress
t	to work with the Unicode liaison (Dr. Asmus Freytag) on the best way to reference the Unicode Standard in the next edition of 10646-1. M37 - in progress.	M37: In progress
<b>AI-36-4</b>	<b>Editor of 10646-2: Mr. Michel Suignard</b>	
	to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	M36.26 (2nd WD - 10646 Part 2): WG 2 accepts document N2012R as the second working draft of ISO/IEC 10646-2, including the following allocation / reallocation of code positions: - Etruscan script is moved from 10200..1022F to 10300 ...1032F - Gothic script is moved from 10230 ... 1024F to 10330 ... 1034F - Deseret script is allocated to the range 10400 ... 1044F and instructs its project editor to send the document to the SC 2 secretariat for circulating for NB comment by 1999-06-15. M37 - in progress.	M37: In progress
<b>AI-36-5</b>	<b>IRG (Mr. Zhang Zhoucai, Rapporteur)</b>	
d	IRG editor is to work with the project editor to synchronize the page numbering for the CJK tables (Clause 26 tables) to get the Camera Ready Copy ready by end of July 1999. M37 - in progress.	M37: In progress
<b>AI-36-6</b>	<b>Ad hoc group on principles and procedures (lead - Dr. V.S. Umamaheswaran)</b>	
a	M36.20 (Criteria for encoding symbols): WG 2 accepts the Criteria for Encoding Symbols proposed in document N1982 in principle and instructs the ad hoc group on Principles and Procedures to incorporate the material from this document into the WG 2 standing document on Principles and Procedures, document N2002. M37 - in progress.	M37: In progress
b	to take note of including IDEOGRAPHIC VARIATION INDICATOR at 303E and remove GENERAL VARIATION MARK from FFFB in the roadmap related work. M37 - in progress.	M37: In progress
c	to incorporate agreed upon parts of roadmap documents N1949 BMP and N1955 Plane 1 into the principles and procedures document. M37 - in progress.	M37: In progress
<b>AI-36-12</b>	<b>The Unicode Consortium (Dr. Asmus Freytag)</b>	
a	to work with the project editor and contributing editor of part 1 on the best way to reference the Unicode Standard in the next edition of 10646-1. M37 - in progress.	M37: In progress; see document N2085

### 16.5 New action items from meeting 37, Copenhagen, Denmark

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
<b>AI-37-1</b>	<b>Meeting Secretary - Dr. V.S. UMaaheswaran</b>	
a	to finalize the document N2104 containing the adopted meeting resolutions and send it to the convener as soon as possible.	M38:
b	to finalize the document N2103 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.	M38:
<b>AI-37-2</b>	<b>Convener - Mr. Mike Ksar</b>	
a	act on the resolution M37.17 (Japanese NB concerns to JTC 1 on SC 2 program of work -- "..... Further, WG 2 accepts and endorses the recommendations in contribution N2049 (SC 2 N3341), and instructs its convener to forward document N2049 along with a summary of the recommendations to SC 2 secretariat for forwarding to JTC 1. ....")	M38:
b	to check with ITTF on referencing non-ISO standards in the context of document N2108 (Editor's response to UTC comments on 10646-1 next edition, 1999-09-12)	M38:
c	to check with ITTF to see if editors have sufficient freedom to generate multilingual documents using appropriate fonts (for example, replace <alpha> with its glyph in relation to the next edition of 10646-1.)	M38:

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
d	to act on the resolution .. M37.13 (Feedback to Romania) - "With reference to document N2117 (letter from Romania to SC 2 requesting changes to Annex P of 10646-1), WG 2 instructs its convener to inform SC 2 that the request of Romania cannot be considered at this time, and to invite the Romanian national body to resubmit it for consideration <i>after</i> the relevant 8859 part has become a standard."	M38:
e	to act on resolution M37.12 (Feedback to D.P.R of Korea): With reference to the NP in document N2056 to amend the Korean encoding of Amendment 5, WG 2 instructs its convener to inform SC 2 to respond to the Committee for Standardization of the D.P.R. of Korea: <ul style="list-style-type: none"> <li>- that WG 2 cannot support this NP because any reordering of the standardized Korean Hangul characters would harm existing implementations that are using the standard including its Amendment 5</li> <li>- that existing standardized character names cannot be changed because character names are normative in the standard and changing them would harm existing users of these standardized character names</li> <li>- invite them to make concrete proposals to add any missing characters following the existing WG 2 Procedures and Guidelines document (JTC 1/SC 2/WG 2 N2002), and the conventions for naming of characters in the standard, for future consideration by WG 2, and,</li> <li>- invite them to participate in the IRG regarding any Hanja character requirements they may have, and,</li> </ul> draw their attention to FCD-3 of ISO/IEC 14651 -- international ordering under ballot in SC 22.	M38:
f	to act on resolution M37.15 (Liaison request from W3C-i18n-WG): WG 2 accepts the offer to establish the Category C liaison from W3C-i18n-WG in document N2081, and appoints its convener Mr. Mike Ksar as the liaison representative from WG 2. WG 2 requests SC 2 to process his liaison and the nomination.	M38:
g	to assist with resolution M37.14 (Response to report on ETSI meeting) - WG 2 invites Mr. Karl Ivar Larsson to prepare an appropriate response to document N2118 on harmonizing ETSI GSM SMS standard with 10646 in consultation with the convener and forward it to ETSI.	M38:
h	to check with ITTF as to whether the Han charts could be sent separately to ITTF rather than through Mr. Bruce Paterson, to reduce some of the costs	M38:
i	to include all carried-forward items from previous meetings to next meeting agenda, including the following documents from M37: N2048 - Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson, 1999-07-20 N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters, Everson, 1997-07-24 N2044 - On encoding New Tai Lue as proposed by China, Everson, 1997-08-13 N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2, Everson, 1997-09-18 N2098 - Report on the proposal for a Meroitic sign, DIN, Germany, 1999-09-13.	M38:
<b>AI-37-3</b>	<b>Editor of 10646-1 Mr. Bruce Paterson and contributing editor Mr. Michael Everson</b>	
	to prepare the appropriate AM, DAM or PDAM texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:	
a	M37.1 (TCOR 3): WG 2 accepts the comment from Korea on draft TCOR-3 and text of Annex xx on Hangul names in document N2077, and instructs its project editor to prepare a disposition of comments and the final text of TCOR-3 and forward it to SC 2 secretariat for further processing.	M38:
b	M37.2 (FPDAM-15 on Kang Xi and CJK radicals): WG 2 accepts the revised disposition of comments on FPDAM-15 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-15 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M38:
c	M37.3 (FPDAM-28 on Ideographic description characters): WG 2 accepts the revised disposition of comments on FPDAM-28 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-28 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M38:
d	M37.4 (PDAM-29 on Mongolian script): WG 2 accepts the revised disposition of comments on FPDAM-29 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-29 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M38:

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
e	M37.5 (PDAM-30 on Additional Latin and other characters): WG 2 accepts the revised disposition of comments on FPDAM-30 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-30 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M38:
f	M37.6 (PDAM-31 on Tibetan extensions): WG 2 accepts the revised disposition of comments on FPDAM-31 ballot in document N2079R, and instructs its project editor to prepare the final text of FDAM-31 with assistance from the contributing editor, and forward these documents to SC 2 secretariat for further processing with unchanged target dates.	M38:
g	M37.7 (Defect report on Thai character names): With reference to documents N2026, N2035 and N2036, WG 2 accepts its project editor's response to add annotations on the character names as the proper solution, and instructs its editor to process it further.	M38:
h	M37.8 (Next edition of 10646-1): WG 2 instructs its editor to prepare a revised text of document N2005 (textual part of the next edition of 10646-1) incorporating changes arising from: Amendment 15, Amendment 28, Amendment 29, Amendment 30, Amendment 31, Technical Corrigendum 3 (see resolution M37.1 above), Responses to comments on document N2005 in documents N2082 and N2108 (amended by discussion at this meeting), Updated list of sources of characters in Annex M (based on documents N2084 and N2106, and changes to document N2106 based on discussion at this meeting), and, Annotations to Thai character names (see resolution M37.7 above) and forward the revised text to SC 2 secretariat for circulation to national bodies and liaison organizations for information, by 1999-11-01. WG 2 further instructs its project editor to prepare the camera ready copy of the second edition of 10646-1 consisting of the above revised text, the final code charts for non-CJK ideographs from AFII and the final code charts for CJK ideographs from the IRG, and submit it to ITTF by 1999-11-01. (Also note: the word 'combining' should be added to title of B.2 to match the title of B.1.)	M38:
AI-37-4	<b>Editor of 10646-2: Mr. Michel Suignard</b> to take note of the following and incorporate the needed text in the draft of 10646-2:	
a	<b>M37.9 (Mathematical alphanumeric symbols):</b> WG 2 accepts the proposal for 991 (subject to verification of this number) new mathematical alphanumeric symbols in document N2086, for inclusion in 10646-2, in the range D400 -- D7FF in Plane 1. The project editor is to select the appropriate character names and block name in the preparation of the text for inclusion in part 2. (note: the editor is to work with proposers of N2086 to refine and consolidate the set of mathematical symbols prior to inclusion in the CD).	M38:
b	<b>M37.10 (CJK unified ideograph extension B):</b> WG 2 accepts the proposal for 42,807 CJK unified ideographs of extension B in document N2105 from the IRG, for encoding in plane 2 of 10646-2, in the range 0100 -- ABFF. The WG 2 notes that the IRG contributing editor has provided the code charts organized as 16 rows by 8 columns. WG 2 further accepts dropping of the word "unified" from the name of plane 2. The project editor is to select the appropriate names for the characters and the block name in the preparation of the text for inclusion in part 2.	M38:
c	<b>M37.11 (2nd WD of 10646-2):</b> WG 2 accepts the disposition of comments in document N2087R on the 2nd WD of 10646-2 and instructs its project editor to prepare the text for CD 10646-2 with assistance from the contributing editors, including the Mathematical Alphanumeric Symbols (see resolution M37.9 above) and the CJK unified ideographs extension B (see resolution M37.10 above) in the CD. WG 2 further instructs its project editor to submit the CD document to SC 2 secretariat for a CD ballot with unchanged target dates.	M38:
AI-37-5	<b>IRG (Mr. Zhang Zhoucai, Rapporteur)</b>	
a	to act on resolution M37.16 (CJK compatibility ideographs from JIS): WG 2 requests IRG to review document N2095 on CJK compatibility Ideographs from Japan, and provide their input to WG 2 before meeting 38 of WG 2, in the context of IRG resolution M13.8 in document N2111. (Some of the assumptions are: - there will be other similar compatibility ideographic characters that may be proposed for inclusion in IRG - these characters will be in plane 2, except for small set of exceptional characters that may go into the BMP. Some of the questions to be addressed are: - is there a need for criterion for unification of compatibility characters or should these be separately identified by individual submitters? - What would be estimated size of such a compatibility area, potential starting area - based on IRG experts' input at the IRG.)	M38:



Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
b	to advise Mr. Mike Ksar as soon as he is ready to print out the Han charts.	M38:
c	IRG members and UTC members are invited to work together to avoid inconsistency in the CJK charts between Unicode 3.0 and 10646-1: 2000.	M38:
<b>AI-37-6</b>	<b>Ad hoc group on principles and procedures (lead - Dr. V.S. UMAmaheswaran)</b>	
a	with assistance from the Unicode representative, to include a warning in the Principles and Procedures document to proposers of future precomposed characters into the standard on the effect of normalization UTR on the integrity of the characters.	M38:
<b>AI-37-7</b>	<b>The Unicode Consortium (Dr. Asmus Freytag)</b>	
a	to distribute the Unicode TR20 - Unicode in Markup Languages - when it becomes publicly available to WG 2.	M38:
b	(together with Mr. Alain La Bonté) to prepare a response to APL SC 22 WG 3 on document N2088, Input from SC 22/WG 3 – APL character repertoire, SC 22/WG 3, 1999-09-07.	M38:
c	to provide the editor of 10646-2 fonts for Mathematical alphanumeric symbols for preparing the text for CD 10646-2.	M38:
d	IRG members and UTC members are invited to work together to avoid inconsistency in the CJK charts between Unicode 3.0 and 10646-1: 2000.	M38:
e	to distribute UTR 9 - BiDi Algorithm - to WG 2 for information.	M38:
f	to distribute UTR on normalization when it is publicly available to WG 2, and to prepare a document summarizing the impact of different forms of normalization on future inclusion of precomposed characters in 10646/Unicode.	M38:
g	to distribute UTR 7 on Alternate Format Characters for information to WG2.	M38:
<b>AI-37-8</b>	<b>Irish national body (Mr. Michael Everson)</b>	
a	to prepare response to document N2039 - Sorting order of Philippino Ng; Philippines and Japan, Sato; 1999-06-23, stating that sorting order alone is not sufficient justification for encoding NG as a single character.	M38:
b	with reference to document N2080 - Request for two additional collections in ISO/IEC 10646-1, to explore other ways in which the requirement could be met than a collection identifier -- for example, an enumeration of the excluded characters in MES-3A.	M38:
c	with reference to document N2097 - Germany's feedback on Semitic languages – is invited to discuss the feedback with the commenter from Germany.	M38:
<b>AI-37-9</b>	<b>Canada (Mr. Alain La Bonté)</b>	
a	(together with Dr. Asmus Freytag) to prepare a response to APL SC 22/WG 3 on document N2088, Input from SC 22/WG 3 – APL character repertoire, SC 22/WG 3, 1999-09-07.	M38:
<b>AI-37-10</b>	<b>Chinese national body (Mr. Chen Zhuang)</b>	
a	with reference to comments from China in document N2070 on FPDAM-31, Tibetan extension, China is invited to work with the ad hoc group on Tibetan - Mr. Michael Everson, UTC experts etc. -- on the Tibetan email group.	M38:
<b>AI-37-11</b>	<b>Japanese national body (Mr. Takayuki Sato)</b>	
a	with reference to document N2040 - Peso sign, Philippines and Japan, 1999-06-10, Japan is invited to prepare a proposal for inclusion of the Philippines Peso sign.	M38:
b	to communicate document N2055 - Comment on Proposal for Nepalese Script, Hugh McG. Ross, 1999-07-29, as feedback to Nepal.	M38:
c	to contact Philippines sources to get feedback on document N1755 - Philippines repertoire, Everson, 1998-05-27.	M38:
d	to provide more information, per discussion at meeting M37 on document N2095, on the compatibility characters -- enlarged glyphs, which characters these were originally unified with in the basic CJK set etc.	M38:
<b>AI-37-12</b>	<b>Lithuania (Mr. Vlados Tsumanos)</b>	
a	to take the discussion from meeting M37 on document N2075R - Proposal to add Lithuanian Accented Letters to 10646-1, 1999-08-15, as feedback to Lithuanian standards body.	M38:
<b>AI-37-13</b>	<b>Germany (Mr. Marc Küster)</b>	
a	with reference to Encoding Egyptian Hieroglyphs, is invited to contact the German experts, encourage them to participate and report to them on the WG2 discussion, and to supply the contact names etc. to Messrs. Michael Everson and Rick McGowan.	M38:
<b>AI-37-14</b>	<b>Sweden (Mr. Karl-Ivar Larsson)</b>	
a	with reference to resolution M37.14 (Response to report on ETSI meeting), is invited to prepare an appropriate response to document N2118 on harmonizing ETSI GSM SMS standard with 10646 in consultation with the convener and forward it to ETSI.	M38:
<b>AI-37-15</b>	<b>All national bodies and liaison organizations</b>	

Item	Assigned to / action (Reference Meeting 37 Resolutions in document N2104 and Unconfirmed Meeting 37 minutes in document N2103 – this document you are reading.)	Status
a	to take note of and act on resolution M37.17 (Japanese NB concerns to JTC 1 on SC 2 program of work) -- "... WG 2 also encourages its experts to get support from their national JTC 1 committees of the recommendations contained in document N2049."	M38:
b	to take note of the following: if delegates / contributors want their documents to be circulated widely they are requested to send their documents in electronic form. If a document contains characters that cannot be supported using Latin based word processors or HTML files, the pdf form is preferred. Otherwise, a Word 6 or HTML document would be acceptable. Word 6 is standardized at the SC level.	M38:
c	to review and feedback on document N2045 - Graphic representation of the Roadmap to the BMP, an update of N1949 to the author, Mr. Michael Everson, with copy to the convener	M38:
d	(Myanmar script experts in particular) to review document N2033 - Proposal for Extension of Myanmar Coded Set, John Okell and Hugh McG Ross, UK, 1999-06-03, with particular attention to the proposed DOUBLE COMBINING MARKS in the document	M38:
e	to review document N2048 - Proposal to supplement the Arabic Coded character set with special script and characters for Uighur, Kazakh and Kirghiz -- this document is considered as a request for consideration by WG 2 for future meeting.	M38:
f	to review and feedback on the following proposal documents from Japan: N2092 - Addition of forty eight characters, Japan, 1999-09-13 N2093 - Addition of medical symbols and enclosed numbers, Japan, 1999-09-13 N2094 - Addition of 13 linguistic educational characters, Japan; 1999-09-13 N2095 - Addition of CJK ideographs which are already unified, Japan, 1999-09-13.	M38:
g	to review and feedback on document N2042 - Unicode Technical Report #3: Early Aramaic, Balti, Kirat (Limbu), Manipuri (Meitei), and Tai Lü scripts; Rick McGowan and Michael Everson, 1999-07-20.	M38:
h	(in particular Egyptologists) to review and feedback on document N2043 - On the apostrophe and quotation mark, with a note on Egyptian transliteration characters, Everson, 1997-07-24.	M38:
i	to review N2044 - On encoding New Tai Lue as proposed by China, Everson, 1997-08-13, and contact Mr. Michael Everson, to participate in email discussions on the subject.	M38:
j	to review and feedback on documents: N1638 - Proposal to encode Meroitic in Plane 1 of ISO/IEC 10646-2, Everson, 1997-09-18; N2098 - Report on the proposal for a Meroitic sign, DIN, Germany, 1999-09-13. (This document contains comments from Dr. Pawel Wolf on Meriotic characters in document N1638. The proposal raises the question whether this needs to be encoding at all.) (Germany and Ireland are encouraged in particular to discuss the subject).	M38:
k	To take note of resolution M37.18 (Future meetings): WG 2 confirms the following future meeting schedule: - Meeting 38: 21--24 March 2000, Beijing, China - Meeting 39: 11-15 September 2000, Greece (US as fall back) (along with SC 2 and SC 2/WG 3 meetings) - Meeting 40: March 2001 - US (subject to confirmation) WG 2 accepts and confirms the following IRG future meeting schedule: - IRG 14: 6--10 December 1999 in Singapore - IRG 15: 15--19 May 2000 in Taiwan - IRG 16: November 2000 in Korea.	M38:
l	invited to visit the Unicode Consortium's web site -- <a href="http://www.unicode.org">www.unicode.org</a> , for the latest information on the electronic parts of Unicode 3.0, which includes the Unicode database, and the various Unicode Technical Reports that are important for implementing Unicode / 10646.	M38:

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