



**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 WG2 meeting 57  
Astor room, 42F, Hotel Lotte, Busan, Korea (Republic Of);  
2010-10-04/08

**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 the Due Date below.

**ACTION ID:** ACT

**DUE DATE:** 2011-05-31

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

**MEDIUM:** Acrobat PDF file

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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 N \_\_\_\_\_**  
**ISO/IEC JTC 1/SC 2/WG 2 N3903**  
**2011-03-31**

|                      |  |
|----------------------|--|
| <b>Title:</b>        | Unconfirmed minutes of WG2 meeting 57<br>Astor room, 42F, Hotel Lotte, Busan, Korea (Republic Of);<br>2010-10-04/08  |
| <b>Source:</b>       | V.S. Umamaheswaran ( <a href="mailto:umavs@ca.ibm.com">umavs@ca.ibm.com</a> ), Recording Secretary<br>Mike Ksar ( <a href="mailto:mikeksar@10646.com">mikeksar@10646.com</a> ), 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**

**Input document:**

[3905](#) 2nd Call for meeting 57 in Busan, R. O. Korea Draft Agenda meeting 57; Convener – Mike Ksar; 2010-09-29

The meeting was convened at 10:02h on Monday, 2010-10-04.

Mr. Mike Ksar: Good morning. Welcome everyone. The agenda hardcopy is available. The website of WG2 is up to date. All the documents are uploaded. Please give me any document you may have for the meeting, I have to see it, before printing it out by the secretariat. Few more attendees are expected. Please register at the secretariat's office and pick up your badge. Now, I would like give the floor to our host Prof. Kyongsok Kim.

Prof. Kyongsok Kim: Thank you. Welcome to Busan. I guess you all have the logistics information document [N3905](#). This meeting is hosted by KATS, the Korean national body.

If you have not registered yet, please register and pick up your badge, in the secretariat room. For the internet wireless the SSID is Linksys; no password is needed. Additional logistics information is in the handout given out at registration. There is a separate room for ad hoc meetings.

There is a social event today starting at 7:00 p.m. It will be on this floor – Bellevue room. If you have food restrictions please let me know by noon today. We are also organizing a free Busan city tour on Thursday evening. Please let me or the secretariat know by Wednesday if you want to attend.

The coffee breaks will be at 10:30 and 15:30. There is a food court in Lower Level (LL level) of the department store next door. There are restaurants around the hotel outside for Korean food. As to the weather, the high and low temperature ranges are in the logistics document. It would be cool in the evening. I would like to caution you. There are two bank notes 5000 and 50000 Won; they look similar in colour, especially in the dark. Be careful. For exchanging foreign currency use the local banks. 1 USD is about 1200 Won. The Electricity is 220 volts in most locations – 110 volts is rare. Round two pin plugs is used for 220V and straight blades for 110V.

Busan is the second largest city in Korea with about 3.5 million people. It is the largest sea port in Korea. There are 20 universities and colleges in Busan. Let us look at the map of Busan in the document. You are at the centre of Busan city. It shows the station locations, metro locations, and a couple of locations one could visit, especially the sea shore. The local maps are also available in the secretariat's office.

If there is any emergency I would let you know my cell number and the secretariat's cell numbers – and

we will do our best to help out. (Prof. Kyongsok Kim: 010-8686-8159; Lee Yoojin – 010-2787-6913)  
 OWG sort can meet on Thursday PM here in the Astor room. A printer will be made available in the meeting room in the afternoon. Please contact the convener before doing any printing. If you have any documents to copy for the meeting please give it to the convener. If it is personal material please give it to the secretary. I will now introduce the staff of KATS. Ms. KIM Eunsook, Ms. LEE Yoojin and Ms. KONG Soon Duck were introduced.

Mr. Mike Ksar: Thank you professor Kim. Now we will do the roll call.

### 1.1 **Roll Call**

Input document:

[3801](#) Experts List – post meeting 56 Convener – Mike Ksar 2010-04-22

Dr. Umamaheswaran has printed the experts list. Please sign in and update your information and suggest any other deletions or additions. Also, give your business cards to Dr. Umamaheswaran to ensure your name is spelled correctly in the attendance list.

Attendees were invited to and they introduced themselves.

The following **25** attendees representing **9** national bodies, and **3** liaison organizations were present at different times during the meeting.

| Name                         | Representing                      | Affiliation  |
|------------------------------|-----------------------------------|--|
| Mike KSAR                    | .Convener, USA                    | Independent  |
| LU Qin                       | .IRG Rapporteur                   | Hong Kong Polytechnic University                                     |
| Bear S. TSENG                | .TCA – Liaison                    | Academia Sinica  |
| Lin-Mei WEI                  | .TCA – Liaison                    | Chinese Foundation for Digitization Technology                       |
| Alain LABONTÉ                | Canada; Editor 14651              | Independent  |
| V. S. (Uma)<br>UMAMAHESWARAN | Canada; Recording Secretary       | IBM Canada Limited   |
| CHEN Zhuang                  | China                             | Chinese Electronics Standardization Institute                        |
| HE Lifeng                    | China                             | Yunnan Minority Languages Commission                                 |
| HUANG Shanshan               | China                             | Chinese Electronics Standardization Institute                        |
| LI Yang                      | China                             | Graduate school of Chinese Academy of Social Sciences                |
| SUN Bojun                    | China                             | Institute of Ethnology and Anthropology, Chinese Academy of Sciences |
| Wushour SILAMU               | China                             | University of Xinjiang   |
| ZHAO Qinglian                | China                             | Yunnan Minority Languages Commission                                 |
| Tero AALTO                   | Finland                           | CSC-IT Center for Science  |
| Michael EVERSON              | Ireland; Contributing Editor      | Evertime   |
| Masahiro SEKIGUCHI           | Japan                             | Fujitsu Limited  |
| KANG Mi-young                | Korea (Republic of)               | The National Institute of the Korean Language                        |
| KIM Kyongsok                 | Korea (Republic of)               | Busan National University  |
| Suhn-Ja PYO                  | Korea (Republic of)               | Vacusoft Inc.  |
| WangSung YANG                | Korea (Republic of)               | Hancom   |
| Harsha WIJAYAWARDHANA        | Sri Lanka                         | ICT Agency of Sri Lanka, Sri Lankan Standard Institution             |
| Martin HOSKEN                | UK                                | SIL International  |
| Michel SUIGNARD              | USA; Project Editor               | Independent  |
| Deborah ANDERSON             | USA; SEI, UC Berkeley – Liaison   | Dept. of Linguistics, Univ., of California, Berkeley                 |
| Peter CONSTABLE              | USA; Unicode Consortium – Liaison | Microsoft Corporation  |

*Drafting committee:* Messrs. Mike Ksar, Mr. Michel Suignard, Michael Everson, Peter Constable, Masahiro Sekiguchi, Prof. Kyongsok Kim and Dr. Deborah Anderson, assisted in checking the draft resolutions prepared by the recording secretary Dr. Umamaheswaran.

## 2 Approval of the agenda

Input document:

[3905-A](#) Draft Agenda meeting 57; Convener – Mike Ksar; 2010-09-29

Mr. Mike Ksar: The main business of this meeting will be for the disposition of ballot comments. We may not take the agenda items in the same order as they are in the document.

The minutes were posted recently and if you have any comments please give them to Dr.

Umamaheswaran. The action items will be reviewed and please give the document numbers for any completed items to Dr. Umamaheswaran.

Agenda items 5 and 6 are for your information only. The subdivision proposal for 3<sup>rd</sup> edition was approved. Mr. Michel Suignard and I have submitted an abstract for the second edition to ITTF, for your information.

There is a SC35 information document under item 6.5; and there is separate document with their request. We will take up the IRG matters on Wednesday.

Item 7.2 will have the disposition of comments. Items in 9 are related to the ballot comments – though not specific to CD 3<sup>rd</sup> edition text.

We may initiate the first amendment to the third edition at this meeting. Several contributions are there in Item 10. Mr. Michel Suignard has prepared draft charts etc., (anticipating some of the contributions will be accepted for the CD 3<sup>rd</sup> edition or for Amendment 1 to the 3<sup>rd</sup> edition) for referencing during the discussions.

We will go through liaison reports and then discuss the future meetings. Let me know if there are any corrections etc.

Mr. Michael Everson: Document [N3931](#) was sent to be added to item 10.15 on Duployan. (Added)

Mr. Mike Ksar: At this time there are no ad hocs. If we need any we can set up these as we go along. We will try to get the business all completed by Thursday morning. Drafting committee will prepare the Resolutions during Thursday afternoon, for adopting Resolutions by Friday morning starting around 10:00h.

The agenda document [N3905-A](#) was updated reflecting the above discussion. It was also updated and posted to the WG2 website as new topics or contributions were identified as the meeting progressed.

All the changes made during the progress of the meeting are included in the appropriate sections in this minutes document. Some of the agenda items have been reorganized or renumbered in these minutes. Some agenda items that were not discussed have been deleted. The following table of contents reflects the items that were discussed.

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### 3 Approval of minutes of meeting 56

Input document:

[3803](#) Minutes Meeting 56; Recording Secretary – Uma; 2010-09-24

WG2 experts in attendance were requested to provide any feedback to Dr. Umamaheswaran off line. There was no feedback or discussion of the minutes. The minutes are adopted as written.

### 4 Review action items from previous meeting

Input document:

[3803-AI](#) Action Items Meeting 56 Recording Secretary – Uma 2010-09-24

Dr. Umamaheswaran reviewed and updated the action items from the previous meetings. The resulting updated status for each item is shown below. Of the **40** action items reviewed, **7** items were carried forward; the rest were either completed or dropped.

#### 4.1 Outstanding action items from meeting 51, 2007-09-17/21, Hangzhou, China

| Item    | Assigned to / action (Reference resolutions in document <a href="#">N3354</a> , and unconfirmed minutes in document <a href="#">N3353</a> for meeting 51 – with any corrections noted in section 3 in the minutes of meeting 52 in document <a href="#">N3454</a> ).   | Status   |
|---------|--|----------|
| AI-51-4 | IRG Rapporteur and IRG Editor (Dr. Lu Qin)   |          |
|         | To act on the resolution below.  |          |
| c.      | <i>M51.38 (IRG ideographs for Names)</i> : With reference to item 8 in document <a href="#">N3283</a> , WG2 endorses the IRG activity to investigate and report back to WG2 on the issues and recommendations on ideographs for names of persons, places and the like. M52, M53, M54, M55 and M56 - in progress. | Dropped. |

#### 4.2 Outstanding action items from meeting 52, 2008-04-21/25, Redmond, WA, USA

| Item    | Assigned to / action (Reference resolutions in document <a href="#">N3454</a> , and unconfirmed minutes in document <a href="#">N3453</a> for meeting 52 - with any corrections noted in section 3 in the minutes of meeting 53 in document <a href="#">N3553</a> )  | Status       |
|---------|--|--------------|
| AI-52-7 | Ireland (Mr. Michael Everson)  |              |
|         | To take note of and act upon the following items.  |              |
| a.      | <b>M52.5 (Principles for Dandas)</b> : WG2 adopts the principles guiding the encoding of Dandas in Brahmic scripts from document <a href="#">N3457</a> , and instructs its ad hoc group on P&P to incorporate these into its document on Principles and Procedures (along with the additions from resolution M52.4 above). WG2 further invites the Irish national body to investigate and report on the current practice on use of currently encoded Dandas in relevant scripts towards finalizing the list of scripts and their corresponding Dandas. M53, M54 M55 and M56 – in progress. | In progress. |

#### 4.3 Outstanding action items from meeting 54, 2009-04-20/24, Dublin, Ireland

| Item    | Assigned to / action (Reference resolutions in document <a href="#">N3604</a> , and unconfirmed minutes in document <a href="#">N3603</a> for meeting 54, – with any corrections noted in section 3 in the minutes of meeting 55 in document <a href="#">N3703</a> ) | Status |
|---------|--|--------|
| AI-54-7 | China (Mr. Chen Zhuang)  |        |

|                |  |                                   |
|----------------|--|-----------------------------------|
|                | <i>To take note of and act upon the following items:</i>   |                                   |
| a.             | <b>M54.18 (Nüshu script):</b> WG2 accepts the ad hoc report in document N3635 on Nüshu script and invites the Chinese national body to provide a revised contribution by 2009-07-31, including considerations for items in the ad hoc report. M55 and M56 - in progress. | In progress.                      |
| <b>AI-54-8</b> | <b>Germany (Mr. Karl Pentzlin)</b>   |                                   |
|                | <i>To take note of and act upon the following items:</i>   |                                   |
| a.             | Invited to submit a revised proposal on Florin currency symbol (see document N3588) taking into consideration discussion at meeting M54. M55 and M56 - in progress.  | Dropped.                          |
| c.             | Invited to revised proposal for Yeru characters (see document N3581) taking into consideration discussion at meeting M54. M55 and M56 - in progress.   | Completed.<br>See document N3916. |

#### 4.4 Outstanding action items from meeting 55, 2009-10-26/30, Tokyo, Japan

| Item            | Assigned to / action (Reference resolutions in document N3704, and unconfirmed minutes in document N3703 for meeting 55 – with any corrections noted in section 3 in the minutes of meeting 56 in document N3803.  | Status  |
|-----------------|--|---|
| <b>AI-55-2</b>  | <b>Convener - Mike Ksar</b>  |   |
|                 | <i>To take note of and act upon the following items:</i>   |   |
| a.              | M55.18 (Missing documents for Korean source references K2 to K5): WG2 requests the convener and the Korean national body to search the WG2 document archives for the missing source reference documents PKS C5700-1 1994, PKS C5700-2 1994, PKS 5700-3 1998 and Korean IRG Hanja Character Set 5th edition 2001 and make it available for IRG archives and reference. M56 - in progress.   | Dropped.<br>Korea is dealing with this item.<br>See document N3898; still to locate K4 reference. |
| <b>AI-55-4</b>  | <b>IRG Rapporteur and IRG Editor (Dr. Lu Qin)</b>  |   |
|                 | <i>To take note of and act upon the following items:</i>   |   |
| a.              | M55.17 (Unified CJK Charts for 2nd edition): WG2 notes that the glyphs for the TCA source for the unified CJK multiple column charts need finalization based on correct fonts being made available to the project editor. There are also missing or incorrect glyphs for other sources. WG2 instructs its project editor to produce the CJK charts of the 2nd edition with fonts to be provided by IRG members and send to the IRG rapporteur. The IRG is instructed to review and correct any errors in the glyphs for the various sources and report back to the project editor, with the objective of replacing the current CJK charts with the verified version in the FDIS (2010-07) of the second edition M56 - in progress. | Completed;<br>included in FDIS for 2 <sup>nd</sup> edition.                                       |
| c.              | M55.20 (Missing source references for CJK Extensions A and B): With reference to the discussion on comment JP9 in document N3716 (disposition of CD ballot comments), IRG is instructed to review and provide to the project editor all the missing indices in source references for unified CJK ideographs, specifically Extensions A and B before the next WG2 meeting in 2010-04. M56 - in progress.  | Completed;<br>input has been provided to the editor.  |
| <b>AI-55-11</b> | <b>Greek national body</b>   |   |
|                 | <i>To take note of the following item:</i>   |   |
| a.              | With reference to ballot comments from Greece in document N3684-GR, to take note of the discussion on PDAM8 disposition of comments in document N3703, and in particular to the referenced source document N2642, and is invited to contribute to the annotations for the four Greek characters. M56 - in progress.  | Dropped.  |

#### 4.5 Outstanding action items from meeting 56, San Jose, CA, USA, 2010-04-19/23

| Item           | Assigned to / action (Reference resolutions in document N3804, and unconfirmed minutes in document N3803 for meeting 56 (this document you are reading). | Status                     |
|----------------|--|----------------------------|
| <b>AI-56-1</b> | <b>Recording Secretary - Dr. V.S. UMaaheswaran</b>   |                            |
| a.             | To finalize the document N3804 containing the adopted meeting resolutions and send it to the convener as soon as possible.                               | Completed;<br>see document |

|                |  |  |
|----------------|--|--|
|                |  | <a href="#">N3804</a> .                            |
| b.             | To finalize the document <a href="#">N3803</a> containing the unconfirmed meeting minutes and send it to the convener as soon as possible.   | Completed;<br>see document <a href="#">N3803</a> . |
| <b>AI-56-2</b> | <b>Convener - Mike Ksar</b>  |  |
|                | <i>To take note of and act upon the following items:</i>   |  |
| a.             | <i>M56.16 (Liaison response to SC34):</i> WG2 instructs its convener to prepare a response to the Liaison letter from ISO/IEC JTC1/SC34 in document <a href="#">N3809</a> , and forward it to SC2 to communicate to SC34. The response will state WG 2's views on the issue that is similar to the response to comment JP.G7 in the disposition of FPDAM8 ballot comment in document <a href="#">N3828</a> .   | Completed.   |
| b.             | <i>M56.12 (Subdivision of work):</i> WG2 instructs its convener and project editor to create a subdivision proposal (document <a href="#">N3837</a> ) for creation of the 3 <sup>rd</sup> edition of ISO/IEC 10646, to incorporate items accepted for future encoding at meeting 55 (resolution M55.28 in document <a href="#">N3704</a> ) and characters and scripts accepted in resolutions M56.08 to M56.11 above. The 3 <sup>rd</sup> edition is also to include the multiple column charts for the remaining CJK ideographs. The target starting dates are: CD 2010-06, FCD 2010-12 and FDIS 2011-11.   | Completed.   |
| c.             | <i>M56.23 (Roadmap snapshot):</i> WG2 instructs its convener to post the updated snapshot of the roadmaps (in document <a href="#">N3807</a> ) to the WG2 web site and communicate the same to SC2 secretariat.  | Completed.   |
| d.             | To add contributions carried forward from previous meetings to agenda of next meeting.   | Completed;<br>several were added.                  |
| <b>AI-56-3</b> | <b>Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)</b>  |  |
|                | <i>To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:</i>  |  |
| a.             | <i>M56.01 (Emoji ad hoc report):</i> WG2 accepts the recommendations in the ad hoc report in document <a href="#">N3829</a> dealing with various ballot comments on FPDAM8 and supporting documents related to Emoji symbols. The recommendations include: <ul style="list-style-type: none"> <li>- Addition of 1 new character 1F610 NEUTRAL FACE</li> <li>- Changes to several glyphs, changes to character names and reordering of the characters inside the Emoticons block (the results are consolidated in document <a href="#">N3826</a>)</li> <li>- Changes to mappings to Emoji sources (to be incorporated in the revised EmojiSrc.txt - document <a href="#">N3835</a>), and</li> <li>- Accepting the following 13 Emoticon symbols for encoding in a future version of the standard: <ul style="list-style-type: none"> <li>1F600 GRINNING FACE</li> <li>1F611 EXPRESSIONLESS FACE</li> <li>1F615 CONFUSED FACE</li> <li>1F617 KISSING FACE</li> <li>1F619 KISSING FACE WITH SMILING EYES</li> <li>1F61B FACE WITH STUCK-OUT TONGUE</li> <li>1F61F WORRIED FACE</li> <li>1F626 FROWNING FACE WITH OPEN MOUTH</li> <li>1F627 ANGUISHED FACE</li> <li>1F62C GRIMACING FACE</li> <li>1F62E FACE WITH OPEN MOUTH</li> <li>1F62F HUSHED FACE</li> <li>1F634 SLEEPING FACE</li> </ul> </li> </ul> with their glyphs as shown in document <a href="#">N3834</a> . |  |
| b.             | <i>M56.02 (Character deletions in Amd. 8):</i> WG2 notes moving the following three characters from Amendment 8 to the collection of characters accepted for a future amendment: <ul style="list-style-type: none"> <li>- A78F LATIN LETTER MIDDLE DOT</li> <li>- 1BFA BATAK SYMBOL BINDU GODANG</li> <li>- 1BFB BATAK SYMBOL BINDU PINARJOLMA</li> </ul>  |  |

|    |   |                         |
|----|---|-------------------------|
|    | <i>M56.03 (Progression of Amendment 8):</i> WG2 notes and accepts various name changes, glyph changes, annotation changes and changes to code positions of characters resulting from the disposition of FPDAM8 ballot comments, which incorporates results of resolutions M56.01 and M56.02 above. WG2 instructs its project editor to forward the final text of Amendment 8, along with the final disposition of comments document <a href="#">N3828</a> to the SC2 secretariat for an FDAM ballot. The final set of charts and names list are in document <a href="#">N3838</a> . The unchanged target starting date is FDAM 2010-06.   |                         |
| c. | <i>M56.04 (CJK Charts for FCD of 2<sup>nd</sup> Edition):</i> WG2 decides to revert back to the single column format for CJK Unified Ideographs of Extension B for the 2 <sup>nd</sup> edition. WG2 further instructs its editor and the IRG to review, verify and finalize the multiple-column charts for CJK Unified Ideographs in blocks other than Extension B.   |                         |
| d. | <i>M56.05 (Revised text for examples Annex S.1.5):</i> IRG is instructed to review and propose updates to the revision to the examples proposed by the editor in document <a href="#">N3794</a> . If an agreed upon text is made available to the editor prior to the start of the FDIS ballot, it will be included in the FDIS ballot.   |                         |
| e. | <i>M56.06 (Disposition of Comments on FCD of 2<sup>nd</sup> Edition):</i> WG2 accepts the final disposition of ballot comments in document <a href="#">N3827</a> , reflecting resolution M56.04 above. WG2 also accepts the following corrections proposed by the editor: <ul style="list-style-type: none"> <li>- update the publication date in reference for HKSCS to 2008 (page 39 of FCD text)</li> <li>- Add the missing TC-4A76 reference to 94C4, including corresponding chart update</li> <li>- Keep the CC-Data Element as a normative term in clause 4.5, but replace it with 'code unit sequence' in the remainder of the text of the standard. The term 'code unit sequence' will also be inserted in clause 4.5.</li> </ul>  |                         |
| f. | <i>M56.07 (Progression of 2<sup>nd</sup> Edition):</i> WG2 instructs its editor to forward updated final text and charts (after the IRG has verified the CJK charts), incorporating the results of resolutions M56.03 to M56.06 above, and the final disposition of ballot comments in document <a href="#">N3827</a> , to SC2 secretariat for an FDIS ballot. The revised target starting date for FDIS is 2010-09.  | Completed items a to f. |
| g. | <i>M56.08 (Miscellaneous character additions):</i> WG2 accepts the following additions and corrections for future encoding in the standard: <ol style="list-style-type: none"> <li>a. 0604 ARABIC SIGN SAMVAT<br/>with its glyph shown in section 4 of document <a href="#">N3734</a>.</li> <li>b. Six punctuation characters:<br/>2E32 TURNED COMMA<br/>2E35 TURNED SEMICOLON<br/>2E36 DAGGER WITH LEFT GUARD<br/>2E37 DAGGER WITH RIGHT GUARD<br/>2E38 TURNED DAGGER<br/>2E39 TOP HALF SECTION SIGN<br/>with their glyphs and annotations from page 1 of document <a href="#">N3740</a></li> <li>c. Two mathematical symbols:<br/>27CB MATHEMATICAL RISING DIAGONAL<br/>27CD MATHEMATICAL FALLING DIAGONAL<br/>with their glyphs and annotations from pages 9 and 10 of document <a href="#">N3763</a>.</li> <li>d. Nine Cyrillic characters for Slavonic:<br/>A674 COMBINING CYRILLIC LETTER UKRAINIAN IE<br/>A675 COMBINING CYRILLIC LETTER I<br/>A676 COMBINING CYRILLIC LETTER YI<br/>A677 COMBINING CYRILLIC LETTER U<br/>A678 COMBINING CYRILLIC LETTER HARD SIGN<br/>A679 COMBINING CYRILLIC LETTER YERU<br/>A67A COMBINING CYRILLIC LETTER SOFT SIGN<br/>A67B COMBINING CYRILLIC LETTER OMEGA<br/>A69F COMBINING CYRILLIC LETTER IOTIFIED E<br/>with their glyphs and annotations from section 2 in document <a href="#">N3748</a>.</li> <li>e. 0AF0 GUJARATI ABBREVIATION SIGN,<br/>with its glyph as shown on line 1 page 1 of document <a href="#">N3764</a>.</li> <li>f. Four Typikon symbols:<br/>1F540 CIRCLED CROSS POMMY<br/>1F541 CROSS POMMY WITH HALF-CIRCLE BELOW<br/>1F542 CROSS POMMY<br/>1F543 NOTCHED LEFT SEMICIRCLE WITH THREE DOTS<br/>with their glyphs from left column in Table 1 of document <a href="#">N3772</a>.</li> </ol> |                         |

|                |  |  |
|----------------|--|--|
|                | <p>g. 058F ARMENIAN DRAM SIGN:<br/>with its glyph as shown in document <a href="#">N3834</a>.</p> <p>h. Two dashes required for Chicago manual of Style<br/>2E3A TWO-EM DASH<br/>2E3B THREE-EM DASH<br/>with their glyphs and annotations based on document <a href="#">N3770</a>.</p> <p>i. Seven Georgian and Nuskhuri letters<br/>10C7 GEORGIAN CAPITAL LETTER YN<br/>10CD GEORGIAN CAPITAL LETTER AEN<br/>10FD GEORGIAN LETTER AEN<br/>10FE GEORGIAN LETTER HARD SIGN<br/>10FF GEORGIAN LETTER LABIAL SIGN<br/>2D27 GEORGIAN SMALL LETTER YN<br/>2D2D GEORGIAN SMALL LETTER AEN<br/>with their glyphs and annotations shown on page 1 in document <a href="#">N3775</a>.</p> <p>j. Four Arabic combining marks<br/>08F0 ARABIC OPEN FATHATAN<br/>08F1 ARABIC OPEN DAMMATAN<br/>08F2 ARABIC OPEN KASRATAN<br/>08F3 ARABIC SMALL HIGH WAW<br/>in a new block named Arabic Extended-A with the range 08A0 to 08FF<br/>with their glyphs as shown in document <a href="#">N3791</a>.</p> <p>k. Correct the names for three Sundanese Supplement characters, based on document <a href="#">N3836</a>:<br/>1CC4 change KA to LEU in the name<br/>1CC5 change BA to KA in the name, and<br/>1CC7 change LEU to BA in the name.</p> <p>l. Two new compatibility ideograph characters, as requested in Korean comment T32.3 on FCD ballot, and in Appendix 3 of document N3747:<br/>FA2E with its glyph shown on page 10, corresponding to K0-522B<br/>FA2F with its glyph shown on page 09, corresponding to K0-6766</p> |  |
|                | h. <i>M56.09 (Takri script)</i> : WG2 accepts to create a new block named Takri in the range 11680 to 116CF in the SMP, and to populate it with 66 characters in code positions 11680 to 116B7 and 116C0 to 116C9, with their code positions, names and glyphs as shown on pages 10 and 11 of document N3758. This block contains some combining marks.  |  |
|                | i. <i>M56.10 (Miao script)</i> : WG2 accepts to create a new block named Miao in the range 16F00 to 16F8F in the SMP, and populate it with 128 characters in code positions 16F00 to 16F41 and 16F50 to 16F8D, with their code positions, names and glyphs as shown on pages 6 to 8 of document N3789. This block contains some combining marks.   |  |
|                | j. <i>M56.11 (Arabic Mathematical Alphabetic Symbols)</i> : WG2 accepts to create a new block named Arabic Mathematical Alphabetic Symbols in the range 1EE00 to 1EEFF in the SMP, and populate it with 143 characters with their code positions, names and glyphs as shown in the charts in document <a href="#">N3799</a> .  |  |
|                | k. <i>M56.12 (Subdivision of work)</i> : WG2 instructs its convener and project editor to create a subdivision proposal (document <a href="#">N3837</a> ) for creation of the 3 <sup>rd</sup> edition of ISO/IEC 10646, to incorporate items accepted for future encoding at meeting 55 (resolution M55.28 in document <a href="#">N3704</a> ) and characters and scripts accepted in resolutions M56.08 to M56.11 above. The 3 <sup>rd</sup> edition is also to include the multiple column charts for the remaining CJK ideographs. The target starting dates are: CD 2010-06, FCD 2010-12 and FDIS 2011-11.   | Completed.                                   |
|                | l. <i>M56.14 (Multiple column CJK charts for 3<sup>rd</sup> edition)</i> : WG2 instructs its project editor to prepare the CJK multiple column charts for CJK Ext. B and CJK compatibility ideographs using the fonts received from IRG members and send them to the IRG for review, verification and finalization.  | Completed.                                   |
|                | m. <i>M56.15 (CD for 3<sup>rd</sup> edition)</i> : WG2 instructs its project editor to create the text of for the 3 <sup>rd</sup> edition of ISO/IEC 10646, incorporating the characters accepted for encoding per resolution M56.12 above on subdivision of work, and send it to SC2 secretariat for a CD ballot.   | Completed; includes items g through j and l. |
| <b>AI-56-4</b> | <b>IRG Rapporteur and IRG Editor (Dr. Lu Qin)</b>  |  |
|                | To revise document <a href="#">N3743</a> for inclusion in WG2 principles and procedures document based on feedback at meeting 56.  | Completed; see document                      |

|                 |  |                                    |
|-----------------|--|------------------------------------|
|                 |  | <a href="#">N3859</a> .            |
|                 | <i>To take note of and act upon the following items:</i>   |                                    |
| a.              | <i>M56.13 (Fonts for CJK multiple column charts):</i> WG2 instructs the IRG to request the IRG members to send to the project editor the necessary fonts to enable creating the multiple column charts for CJK Ext. B and for CJK compatibility ideographs for consideration to include in the 3 <sup>rd</sup> edition of ISO/IEC 10646.   | Completed; sent to the editor.     |
| <b>AI-56-5</b>  | <b>Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)</b>   |                                    |
| a.              | <i>M56.22 (Guideline on spelling for English character names):</i> WG2 accepts the proposed text for guideline proposed in document <a href="#">N3832</a> on spelling of English character names in the standard for inclusion in the Principles and Procedures document, and instructs Dr. Umamaheswaran to prepare an updated Principles and Procedures document ( <a href="#">N3802</a> ) and submit it to the convener to post to the WG2 web site and communicate to SC2 secretariat. | Completed.                         |
| <b>AI-56-6</b>  | <b>Ad hoc group on roadmap (Mr. Michael Everson)</b>   |                                    |
| a.              | To update the Roadmaps with the results from this meeting.   | Completed.                         |
| <b>AI-56-7</b>  | <b>Unicode Consortium (Mr. Peter Constable)</b>  |                                    |
| a.              | To work with the project editor on a mutually acceptable syntax for USIs in NUSI.txt between Unicode and 10646.  | In progress.                       |
| b.              | To send updates to UTS #37 on Ideographic Variation Database to WG2 for feedback.  | In progress.                       |
| <b>AI-56-10</b> | <b>TCA (Mr. Bear Tseng)</b>  |                                    |
|                 | <i>To take note of and act upon the following items:</i>   |                                    |
| a.              | <i>M56.19 (Disunification request from China and TCA):</i> With reference to the disunification request in document <a href="#">N3787</a> , China and TCA are invited to revise the document clarifying what exactly is requested, have it reviewed by IRG, and submit the revised document to the next WG2 meeting.   | Dropped.                           |
| <b>AI-56-12</b> | <b>All national bodies and liaison organizations</b>   |                                    |
|                 | <i>To take note of and provide feedback on the following items.</i>  |                                    |
| a.              | <i>(Authors of the document are from several national bodies)</i><br><i>M56.17 (Tangut script):</i> WG2 accepts the recommendations in the Tangut ad hoc report in document <a href="#">N3833</a> and invites the authors of the Tangut proposal in document <a href="#">N3797</a> , together with other Tangut experts, to submit a revised proposal taking into account the ad hoc recommendations.  | In progress.                       |
| b.              | <i>(Authors of the document are from several national bodies)</i><br><i>M56.18 (Jurchen script):</i> WG2 invites the authors of the proposal to encode Jurchen script in document <a href="#">N3788</a> to further revise the document based on feedback in document <a href="#">N3817</a> , discussion at meeting 56, and in consultation with other Jurchen experts.   | In progress.                       |
| c.              | <i>M56.20 (IRG Principles and Procedures):</i> WG2 invites experts from national bodies and liaison organizations to review and provide feedback to the IRG rapporteur, on the principles and procedures document of the Ideographic Rapporteur's Group in document <a href="#">N3744</a> and the associated Ideographic Working Document Series from document <a href="#">N3746</a> before the June meeting of IRG.   | Noted.                             |
| d.              | <i>M56.21 (IVD registration by Japan):</i> WG2 invites national bodies and liaison organizations to review and provide feedback to the IVD registrar by 2010-06-25 on the first set of Ideographic Variation Sequences for Hanyo-Denshi ideographic variation collection as per announcement in document <a href="#">N3796</a> .   | Completed. Some feedback received. |
| e.              | <i>M56.24 (Future meetings):</i> WG2 endorses the following schedule for future meetings of WG2 and of IRG:<br>WG2 meetings:<br>Meeting 57 - 2010-10-04/08, Busan, Korea (Republic of)<br>Meeting 58 - 2011-06-06/10, Helsinki, Finland (along with SC2 plenary)<br>Meeting 59 – 1 <sup>st</sup> Quarter, 2012, Mountain View, CA, USA (pending confirmation), Germany (as backup)<br>IRG meetings:<br>IRG 35 - 2010-11-08/12, Macao SAR   | Noted.                             |
| f.              | To review and provide feedback on the various contributions that have been carried forward from the previous meetings – see section 13 of the meeting 56 minutes document.   | Noted.                             |
| g.              | to take note of the activities on various minority scripts under the Script Encoding Initiative (document <a href="#">N3814</a> ), and encourage any national experts on these scripts to review and contribute.   | In progress.                       |

## 5 JTC1 and ITTF matters

Input documents:

- [3878](#) Notice of Publication: ISO/IEC 10646: 2003/Amd 7, Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- Amendment 7: Mandaic, Batak, Brahmi, and other characters; SC2 Secretariat sc02n4149; 2010-07-20
- [3880](#) Notification of JTC 1 Supplement [ISO/IEC Directives Supplement -- Procedures specific to JTC 1, First edition 2010]; JTC 1 Secretariat; 2010-08-09

The above documents were for information to WG2. There was no discussion.

## 6 SC2 matters

Input documents:

ISO/IEC JTC1/SC2 [Programme of Work](#) (posted to SC2 web site)

- [3879](#) Notification of SC 2 Approval of SC 2 N 4144, Project Subdivision Proposal for ISO/IEC 10646 3rd Edition; SC 2 Secretariat; 2010-08-09
- SC2 [N4159](#) SC 2 Business Plan for the Period October 2009 - September 2010; Prof. Yoshiki Mikami, SC 2 Acting Chairman; 2010-10-06
- SC2 [N4160](#) SC 2 Chairman's Presentation to the November 2010 JTC 1 Plenary Meeting in Belfast; Prof. Yoshiki Mikami, SC 2 Acting Chairman; 2010-10-06

These documents were for information to WG2. As there were no objections from the SC 2 members, the project subdivision proposal was forwarded to JTC 1 for endorsement.

### 6.1 Submittals to ITTF

#### 6.1.1 Text for ISO/IEC 10646/FDAM 8 Input document:

- [3845](#) Text for ISO/IEC 10646/FDAM 8, Information technology -- Universal Multiple-Octet Coded Character Set (UCS) -- AMENDMENT 8: Additional symbols, Bamum supplement, CJK Unified Ideographs Extension D, and other characters; SC2 Secretariat; SC02n4142; JTC1 ballot; 2010-06-08

Final text of Amendment 8 to ISO/IEC 10646: 2003 was sent by SC2 secretariat to ITTF – but it will not be published separately. It is being rolled into the second edition of ISO/IEC 10646.

#### 6.1.2 Text for ISO/IEC FDIS 10646, 2nd edition

Input document:

- [3911](#) Text for ISO/IEC FDIS 10646, Information technology -- Universal Coded Character Set (UCS) – 2nd edition - accessible from SC2 web site document 02n4153; SC2 Secretariat – 02n4153; 2010-09-07

#### Discussion:

- a. Mr. Peter Constable: The compilation of ballot comments for the 2<sup>nd</sup> edition from SC2 does not indicate the source of the comments in many of them. The national bodies do not always identify themselves in the first cell of the row containing their comments.
- b. Mr. Michael Everson: The secretariat has to be informed about the non-usability of the ballot commenting form for standard such as ISO/IEC 10646. The format requested for ballot comments does not work for us. There is no way we could include code charts etc. in the current response template. We always attach the .pdf file and we will continue to do so.
- c. Dr. Umamaheswaran: I request delegates to encourage their national bodies to feedback to the JTC1 secretariat so that they can take a look at the issue also.
- d. Mr. Michel Suignard: If the comments are sent in via word or via pdf is fine with me. I can deal with these. Ireland puts in complete charts - this is a difficult to handle.
- e. Mr. Mike Ksar: I note your concerns. I will take an action to communicate the issue with the secretariat.

#### Action item

Convener is to communicate with the SC2 secretariat to ensure that the ballot summary document identifies the source (national body) associated with the ballot comments.

#### 6.1.3 Abstract of ISO/IEC 10646 2nd edition

Input document:

- [Abstract](#) 10646: 2011 Abstract, Mike Ksar, 2010-09-21

This document, prepared by the convener and the project editor will be posted to the ITTF web site when the 2<sup>nd</sup> edition is published. It is for information to WG2.

## 6.2 Ballot results - ISO/IEC CD 10646 - 3rd Edition

Input document:

[3921](#) Results of Voting & Summary – 3rd edition 10646; SC2 Secretariat sc02N4156; 2010-09-24

Twenty two (22) national bodies had voted, one (1) had sent in comments, and seven (7) did not respond. Of the 22 responses, there were 3 abstentions, 12 approvals without any comments, 5 approvals with comments (China, Egypt, Japan, Norway and USA), and 2 disapprovals (Ireland and Republic of Korea). See section 7.1 on page 13 for the discussion of the ballot comments and disposition of these.

## 6.3 JTC1/SC35 Liaison

Input documents:

[3897](#) Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and Amendment 1 into the UCS; JTC1 SC 35/WG 1 – Liaison; 2010-08-27

[3927](#) Draft Technical Report Cultural and Linguistic Interoperability – Definitions and relationship between symbols, icons, animated icons, pictograms, characters and glyphs; SC35 - Alain LaBonté, project editor, with contribution from Pr. Em. Hiroaki IKEDA; 2010-08-27

**Action item:** Experts from SC2 (and WG2) and its liaison organizations are invited to review and provide feedback on document N[3927](#) from SC35.

## 7 WG2 matters

### 7.1 Disposition of ballot comments on CD-10646 3rd edition

Input documents:

[3892](#) Draft disposition of comments for the CD of ISO/IEC 10646 3rd edition; Mr. Michel Suignard; 2010-09-24

The following documents were dealt with during the discussion and disposition of comments:

[3849](#) Update of N3794 - Annex S clause S.1.5 rewrite; Mr. Michel Suignard; 2010-06-22

[3877](#) Proposal for encoding additional Miao characters in the SMP of the UCS; Michael Everson & Erich Fickle; 2010-08-08

[3884](#) Spelling of CROSS POMMY in 1F540, 1F541, 1F542; Debbie Anderson - SEI; 2010-08-18

[3899](#) Comments for KP1-0000: CJK char with no source reference; R. O. Korea NB; 2010-09-20

Output documents:

[3936](#) Final disposition of comments on CD ballot for 3rd Edition; Project Editor – Michel Suignard; 2010-10-08

[3945](#) 3rd edition - delta charts; Project Editor – Michel Suignard; 2010-10-08

The editor's proposed disposition of comments is in document N[3892](#). It includes the original ballot comment submitted and the proposed disposition for each. Those requiring further WG2 discussion are specifically identified. Comments were received from Armenia, China, Egypt, Ireland, Japan, Korea (ROK), Norway, and the USA.

#### 7.1.1 Armenia - Comments

*Comment T1. a)* Requests the Armenian Dram Sign be moved to the Currency Symbols block to the next available position 20B9.

**Discussion:**

- a. Mr. Michel Suignard: The location suggested 20B9 may not be a good idea. We could encode currency symbols either in the script block or in the currency block. The table 15.1 in the Unicode Standard (section 15.1) shows the locations for various currency signs. We tend to put those currency symbols that do not have dependency on styles of scripts in the currency block. The other point to consider is the space in the script block.
- b. Mr. Michael Everson: The principle we have used in the past is that where the glyph is similar to the letters of the script we have kept them in the script block. If it is Latin-based or generic it would be in the currency block. The Dram is similar to the Armenian letter D, and hence it should be in the script block.
- c. Mr. Peter Constable: We concur with the Irish comment.
- d. Dr. Umamaheswaran: I think it should be in the script block.

**Disposition:** Not accepted. The symbol has close relationship to Armenian letter D.

*Comment T1. b)* Requests encoding a new character Armenian Eternity Sign.

**Disposition:** Out of scope.

This request was processed as a new contribution. See discussion under section 9.4 on page 30.

### 7.1.2 China - Positive with comments

*Comment T:* The fonts of Multi-column code charts of CJK Unified Ideographs (main block and extensions) must be corrected according to IRG suggestions, which will hopefully be available after IRG#35 in November, 2010.

#### Discussion:

- a. Mr. Michel Suignard: The main block was reviewed after CD 2<sup>nd</sup> edition was published. Many changes were done to the BMP characters. The FDIS of 2<sup>nd</sup> edition already contains the changes. The CD 3<sup>rd</sup> edition would include all the changes in the FDIS of 2<sup>nd</sup> edition. It should be a given. Extensions C and D have been stable and there is no change. As to extension B multiple column charts, which China did not mention explicitly, we do have a process in place to work with the IRG. We may have to do some parallel processing for extension B giving due considerations to new JTC1 procedures. If we do a DIS ballot (per new process), we don't have much time. This may mean some of the corrections to extension B may have to be via comments to DIS. We are going to accepting China's comments. I would like to hear national body opinions.
- b. Mr. Chen Zhuang: it is fine with us.
- c. Mr. Masahiro Sekiguchi: it is fine with us. The IRG will be meeting a month from now. Based on that work some significant set of fixes should be available for the DIS.
- d. Mr. Peter Constable: It is a reasonable approach. While the IRG was doing the review, is there any documentation maintained as to what specific changes were made to which characters? It would be helpful information for others who may be reviewing the final charts.
- e. Dr. Lu Qin: The reviews are kept along with the IRG document number which is discussed, on the IRG web site (<http://appsrv.cse.cuhk.edu.hk/~irg/>). You can see these under round 1, round 2 etc. The consolidated list would be prepared and confirmed by IRG members. The discussion will be recorded and kept. An example is document [IRG 1707](#).
- f. Mr. Michel Suignard: We have a fairly open process, and the IRG members are kept in the loop. The discussions may not show up at the WG2 level. But the changes are being reviewed by IRG members and the final charts are checked.

**Disposition:** Accepted.

### 7.1.3 Egypt: Positive with comments

*Comment T1:* Proposes changing all the Arabic character names to use classical naming – such as all BEHs with BA's, pointing to DIN 31365 for transliteration of Arabic character names.

#### Discussion:

- a. Mr. Michel Suignard: Egypt has a technical comment on changing the names of several Arabic characters.
- b. Mr. Mike Ksar: We wanted to change the names long ago; but it did not happen.
- c. Mr. Michel Suignard: The current use is in standards already. Egypt is claiming the names in ISO standards in the past are all wrong. We cannot change these names. Also we cannot have apostrophe in the names. We have made it very clear that names cannot be changed.
- d. Mr. Mike Ksar: Aliases may be considered.
- e. Mr. Michel Suignard: There are too many Arabic characters for aliasing. We could add an explanatory note at the top of the block about the transliteration being different.
- f. Mr. Mike Ksar: I will give you the text for the note.

#### Disposition:

Not accepted. We will entertain a Note in the Arabic block.

“Arabic character names follow a naming convention derived from ISO/IEC 8859-6, which is different from the common naming convention for Arabic letters. For example, character 0628 Arabic Letter BEH is commonly named BA’.

### 7.1.4 Ireland, Negative

*Comment T1:* Requests that the character INDIAN RUPEE SIGN be added at U+20B9 with the glyph as shown in [N3887](#) (and several other proposals for that character).

#### Discussion:

- a. Dr. Umamaheswaran: I really question the practice of some national bodies including proposal of new characters unrelated to the ballot text in the ballot comments. I propose that we rule such comments as out of scope. We can discuss these if they are made as separate proposals outside of the ballot comments.

b. Mr. Michel Suignard: I will mark it as out of scope.

**Disposition:** Out of scope.

This and similar other requests to encode the new Indian Rupee Sign were processed separately. See discussion and disposition under agenda item 9.1 on page 29. The character was accepted for encoding in the 3<sup>rd</sup> edition.

*Comment T2:* Ireland reiterates retaining A78F LATIN LETTER MIDDLE DOT with a name change to LATIN LETTER GLOTTAL DOT reflecting its usage in Tangut transcriptions.

**Discussion:**

- a. Dr. Umamaheswaran: I thought this was discussed in the ad hoc at the last meeting including the proposed to change the name.
- b. Mr. Michael Everson: There was no consensus at the last meeting.
- c. Mr. Michel Suignard: WG2 accepted the ad hoc to postpone it for next edition.
- d. Dr. Deborah Anderson: There was also suggestion to include this in Phags-pa block. The U.S. is still strongly opposed to inclusion of this character. We have looked up the dictionary and other references.
- e. Mr. Michael Everson: Strongly opposed to include the character is one thing; the change in the name is a different issue. Had a comment from Mr. Andrew West supporting the name change. The character is in the ballot.
- f. Mr. Martin Hosken: The UK supports this change to indicate its usage.
- g. Mr. Michel Suignard: The U.S. did not have any ballot comment on this character in this CD. There is another round of ballot.
- h. Mr. Peter Constable: The U.S. did overlook this character in the ballot comments. We have no grounds to force the removal at this ballot. We will probably be discussing this at the next meeting.
- i. Mr. Michel Suignard: We will decide this in Helsinki.

**Disposition:** Accepted the name change to A78F LATIN LETTER GLOTTAL DOT.

**Relevant resolution:**

**M57.04 (Miscellaneous name changes):**

**Abstention: The U.S.A; Acceptance: Canada, China, Ireland, Japan, Korea (Republic of), and UK**

WG2 accepts the following character name change in the standard:

A78F - from LATIN LETTER MIDDLE DOT to LATIN LETTER GLOTTAL DOT

*Comment T3:* Ireland requests removal of the Meroitic fractions and numbers from 109C0 ... 109F0, pending further study, citing a 2009 publication as a reference.

**Discussion:**

- a. Mr. Michael Everson: The reviewers found several inconsistencies with the CD charts. We want to take out these characters and bring them back in later.
- b. Mr. Michel Suignard: I would like to keep it; the only concern is about impact on block size.
- c. The other option is to leave them and correct them in the next ballot round.
- d. Mr. Michael Everson: Ireland withdraws the comment.

*Comment T4:* Ireland requests moving the Takri block to U+11300-1134F.

**Discussion:**

- a. Mr. Michel Suignard: The editor fails to see the need for this move. It is simple to move it, but need a better rationale for doing so.
- b. Mr. Michael Everson: We have a request to add some more characters to this script. There is no space for it.
- c. Dr. Deborah Anderson: The roadmap committee had no input to this move.
- d. Dr. Umamaheswaran: You did not point out that there are more characters coming into the script and that is why you are asking for the move.
- e. Mr. Michael Everson: I agree the rationale for adding the characters is missing in the ballot comment.
- f. Dr. Deborah Anderson: I would like to see a consensus from the roadmap committee also to see if this move is desirable. The feedback I have is that they are against it.
- g. Mr. Peter Constable: There is also another round of ballot; you could comment on it.

- h. Mr. Michael Everson: The request has been sent to Messrs. Rick McGowan and Ken Whistler to be able to add new characters being requested. They have not responded to my specific comment. In the spirit of amity, Ireland withdraws this comment.

*Comment T5:* Ireland requests addition of 5 Miao characters based on proposal in document [N3877](#); the re-arranged code chart is also provided.

**Discussion:**

- a. Mr. Michel Suignard: The U.S. has commented (comment T.2.c) on these as well. I would like to see consistent change to the proposed names between U.S. and Ireland.

The U.S. has proposed:

U+16F56 MIAO VOWEL SIGN AHH

U+16F5B MIAO VOWEL SIGN WO

And to be consistent with [N3877](#), the annotation for 16F56 should be changed to:

- used in Hei Yi

- b. Mr. Michael Everson: Accepted the Editor's proposed disposition.

**Disposition:** Accepted in principle.

See relevant resolution M57.11 on page 24.

Editorial comments:

*Comments E1 to E7, E11 to E13:* Ireland recommends to use a uniform Times-like font be used for the glyphs in several blocks containing glyphs for Latin characters.

**Discussion:**

- a. Mr. Michel Suignard: I tend to prefer the current styles. The proposal introduces many tiny regression problems. C0, C1 etc. have been extremely stable. Ratio between symbols and characters etc. are changed but enough to look different. This applies to the whole Latin set. My initial take is not to do this. The burden should be on the new submitters to be consistent with the initial content of the standard rather than the other way.
- b. Dr. Umamaheswaran: Ireland had similar comments in the last meeting also. At that time Ireland was requested to produce a contribution for national body comments first. They seem to be bringing it back through ballot comments another time around.
- c. Mr. Peter Constable: We do not like to entertain any change, which has any potential for regression in the code charts. We would prefer to entertain any specific glyph changes etc. if there is rationale for it. There is no visible differences demonstrated; the characters may have come from different sources.
- d. Dr. Deborah Anderson: The U.S. national body would like to go very slowly on any changes to the fonts for the charts. We would like to carefully check any proposed changes to the charts. I support the editor in this.
- e. Mr. Mike Ksar: This is an editorial comment. Sounds like it could have large impact. If the comment is only a preference the editor could be given the choice.
- f. Mr. Michel Suignard: As a minimum I would like to get an opinion on the typographers such as designers of Times font. They have strong opinion on the nature of the style in the fonts. I am not closing the door, but would like to be very cautious about it. I would suggest you involve other experts in the loop. I have to deal with this at a different level of magnitude for the CJK charts. Most people don't see the charts being broken.
- g. Mr. Michael Everson: Ultimately the reason is that we stopped using Fiscella style. We did replace the Cyrillic charts with Times- like fonts etc. What I would do is to withdraw the Latin-specific comments.
- h. Dr. Umamaheswaran is right in that it should be a new contribution, and should go into different committees etc. for their opinion etc. Both the UTC and WG2 have already replaced the Cyrillic fonts and some others. I am OK for the Latin to go slow. The percent of Fiscella characters are getting smaller and smaller. These charts should be done in a new contribution and I am OK with it. I accept the proposed disposition for all the Latin related requests.

This disposition applies to comments E.1 through E.7 and E.11 to E.13.

**Disposition:** Accepted proposal by editor.

*Comment E8:* Ireland recommends replacing the font for row 098: Bengali with a single Akasha font that is freely available under the GNU GPL license.

**Discussion:**

- a. Mr. Michel Suignard: I have some meta issues with this. We don't quite understand the GPL license with respect to Fonts. The GPL has a viral part into it. Any modification to it has some problems. The regression is another issue. Centering of combining marks was another issue. This proposal makes it worse. There is also another commercial font, which does not bring all the regression issues etc. and no GPL related issues either.
- b. Dr. Umamaheswaran: Such font change requests are to be in consensus with the national bodies such as India in this case. This is the reason why we requested Ireland to distribute and get consensus from national bodies rather than part of the ballot comments.
- c. Mr. Martin Hosken: It could be LGPL license instead of GPL.
- d. Mr. Peter Constable: When the fonts are to be included in the pdf file and redistributed there could be font license issue with GPL.

**Disposition:** Not accepted.

**Action item:** Mr. Michael Everson is invited to make contributions on proposed changes or improvement to charts, for feedback from national bodies and liaison organizations.

*Comment E9:* Ireland recommends using Rachana font, available under GNU GPL license, for row 0D0: Malayalam.

**Discussion:**

- a. Mr. Michel Suignard: If we can solve the GPL issue it could be acceptable.
- b. Mr. Michael Everson: The Malayalam font would be more acceptable.
- c. Mr. Peter Constable: If they could make it available under different font licensing conditions then we could use it. Not GPL issue.
- d. Mr. Michel Suignard: We would be embedding the fonts for the charts; we could accept it.
- e. Mr. Mike Ksar: The GPL licensing may still be an issue.
- f. Mr. Masahiro Sekiguchi: I suspect LGPL may not be better than GPL license. The LGPL allows the modification of the font if the user needs it. We may need to allow the fonts used in the charts to be modifiable. And they can redistribute the modified font etc.
- g. Mr. Michael Everson: If we can get clarification from Rachana font authors that if the authors of the font can give suitable terms for production of the charts for both the standards then we could move ahead.

**Disposition:** The authors of Rachana font have signed the needed Unicode license. Accepted in principle.

*Comment E10:* Ireland recommends that the font used for Sinhala glyphs be replaced with the font that has been supplied by the Sri Lankan standards body along with their proposal to add additional numbers to the UCS.

**Discussion:**

- a. Mr. Michel Suignard: Sri Lanka has been providing me two styles; the so-called Classic Style and another one similar to Irish input. My preference is to accept the Classic Style.
- b. Mr. Michael Everson: The classic style would be acceptable too.

**Disposition:** Accepted in principle.

*Comment E14:* Ireland recommends the dotted boxes at U+111C2 and U+111C3 for Sharada characters be synchronized with the dotted boxes used elsewhere in the UCS.

**Disposition:** *Accepted.*

Mr. Michael Everson: Based on the above dispositions, Ireland changes its vote to Acceptance.

### 7.1.5 Japan, Positive with comments

*Comment JP.1 (Editorial):* Replace "1)", "2)", "3)", and "4)" with "a)", "b)", "c)", and "d)"..., for the first level of itemization in Clause 21.

**Disposition:** Accepted

*Comment JP.2 (Editorial):* Proposes replacing two occurrences of "Shift-Jis" with "Shift-JIS" in clause 22.4.

**Disposition:** Accepted

*Comment JP.3 (Technical):* Proposes rephrasing the definition of GKX source to make it clear that the glyphs shown on the code chart are taken from the modern Chinese standards and not from the said KangXi dictionary directly, in the GKX source definition in clause 23.1.

#### **Discussion:**

- a. Mr. Michel Suignard: I need input from IRG experts. The typography has evolved and the glyphs may not be in synch with the dictionaries not only for KangXi but for other sources also. I could add a note to indicate that the glyph shapes may not be identical to the original sources.
- b. Mr. Masahiro Sekiguchi: Add to the definition of the source, a note that the glyph may not be identical to the glyph that may be seen in the original dictionary. But we wanted the IRG input on this.
- c. Dr. Lu Qin: In the IRG's many discussions, there was an old agreement to pick the glyph from KangXi dictionary. Since China has changed the glyph for unification, some kind of text to indicate that glyphs for the sources in the charts may be different from the original KangXi dictionary.
- d. Mr. Chen Zhuang: We have received this comment from the IRG member from Japan. We have asked our experts to review. We can come with some explanatory text to be added to the standard. We can decide at the next IRG meeting.
- e. Dr. Lu Qin: Japan proposes that we are accepting the glyph differences and we add some explanatory text.
- f. Prof. Kyongsok Kim: We have not thought about it much; so I cannot comment on it now.
- g. Mr. Michel Suignard: The statement from Japan is true not just for KangXi. It is applicable to other dictionaries also. Isn't this true?
- h. Mr. Masahiro Sekiguchi: In case of J column references, Japan has been very careful to ensure glyph closeness to the sources we have. The GKX is not used as a source for Japan. But KangXi dictionary is referenced by many in Japan also. Japanese committee receives questions about the KangXi dictionaries and the standard's glyph. We have no concerns about glyphs in other dictionaries, but we do have concern about those from KangXi. I would have no objection to add comments for other dictionaries if you have concerns, but Japan does not have such concerns.
- i. Mr. Michel Suignard: I think you may not want to be too generic. I can restrict it to KangXi.
- j. Dr. Lu Qin: As I said KangXi is a special one.
- k. Mr. Peter Constable: Are the glyph changes are within the limits for unification?
- l. Mr. Masahiro Sekiguchi: All the cases should be within the unifiable differences.
- m. Mr. Michel Suignard: I will work with Japan on the text and where to locate the note.
- n. Mr. Masahiro Sekiguchi: The best location would be near the reference for GKX.
- o. Prof. Kyongsok Kim: Are we going to finalize it at this meeting? Will we be awaiting input from IRG?
- p. Mr. Michel Suignard: You will see the final text in the Final disposition of Comments document. IRG can still review it and propose changes before FDIS.

**Disposition:** Accepted.

(See document N[3936](#) for the final wording of the note.)

*Comment JP.4 (General):* Proposes adding another source column to the multicolumn code chart for CJK B to show the glyphs on the code chart from previous editions of ISO/IEC 10646.

#### **Discussion:**

- a. Mr. Michel Suignard: The request was to show the glyphs used in the Extension B single column charts -- from the second edition. It is doable from resource point of view, but I have to work within the constraints of the tool. For the review work, I used the U source as a substitute. There is no U Sources for ext B so far; assuming there is none into the future. It will be identified as a new source, in the last column. Also any new source for Extension B charts or reordering will affect the tool.

- b. Prof. Kyongsok Kim: There is a special version for review purposes, which includes the Extension B single column glyphs. Japan proposes to retain the glyphs from single column Extension B chart.
- c. Mr. Michel Suignard: I prefer not to use the current U-xxxx in the chart.
- d. Dr. Umamaheswaran: You could use U11- as abbreviation for UCS 2011 edition.
- e. Mr. Peter Constable: Speaking for the Unicode consortium since it affects the charts for the Unicode standard also, I would prefer that we don't go forward with this right now. I would like to have the opportunity for the UTC to get a round for review.
- f. Mr. Michel Suignard: I would prefer not to produce two different versions. Some of the UTC members have expressed they like retaining that information. I expect IRG members would have similar request.
- g. Dr. Umamaheswaran: We still have one more round of ballot. The UTC and the national bodies can review these.

**Disposition:** Accepted in principle. UCS11 will be the source and UCS-hhhhh will be the new source-reference format. Relevant editorial text will be added to go with it.

**Action item:** The editor will prepare a contribution to the UTC, to describe the proposed new Extension B format along with some sample charts.

**Relevant resolution:**

**M57.07 (CJK Ext. B glyphs from 2nd edition):**

**Unanimous**

WG2 accepts to add the glyphs from the chart for CJK Extension B in the 2<sup>nd</sup> edition, as a set of additional glyphs to be included in the chart for CJK Extension B in the 3<sup>rd</sup> edition. These glyphs are to be identified with a pseudo-source reference in the form of UCS11-2xxxx, where 2xxxx is a code point in the SIP in the 2<sup>nd</sup> edition.

*Comment JP.5 (General):* Requests updating the CJK Unified Ideographs Extension B code chart appropriately to reflect the review by IRG, in clause 31.

**Disposition:** Accepted; similar to comment T1 from China.

*Comment JP.6 (General):* Move "JIS X0201-1976" under "General" from "CJK Unified Ideographs" – it is equivalent of ISO/IEC 10646 and half-width Katakana, and contains no ideographs, in Annex M.

**Discussion:**

- a. Mr. Michel Suignard: We could also create a Kana entry, although then we would need to duplicate one of the other Japanese entries from the CJK Ideographs entry.
- b. Mr. Masahiro Sekiguchi: We did not have classifications in Annex M. The current Kana set has been taken from several JIS standards. There was a single listing before. Two of these ended up under CJK entries; but they should be moved out. We don't have specific Kana entry requirement. General is fine.

**Disposition:** Accepted.

*Comment JP.7 (General):* Requests Annex S should reflect the results of Nagaoka IRG meeting (see document N3849).

**Disposition:** Accepted.

**Relevant resolution:**

**M57.08 (Annex S):**

**Unanimous**

WG2 accepts replacing Annex S in the 3<sup>rd</sup> edition with a revised version of Annex S from the 2<sup>nd</sup> edition.

**7.1.6 Korea (ROK): Negative**

*Comment T1:* Annotations for U31xx

Korea proposes to 1) create a new Annex to contain Annotations for 50 U31xx Hangul letters. Currently two of these characters U3181 and U3186 have annotations in the nameslist, and 2) to remove the current two annotations the two characters are in the new annex.

**Discussion:**

- a. Mr. Michel Suignard: Korea is asking for 50 Hangul letters in compatibility; this is a continuation of comments the made on the 2nd ed. Looks like text for Nameslist, but will be in a separate annex for the range of U3131 ~ U318E. Last time we did not entertain so many additions in the nameslist. I prefer not to have a pseudo nameslist in an Annex. If we accept this I prefer to include these in the nameslist.

- b. Mr. Peter Constable: This looks like encyclopedic information about a particular script. We don't get similar annotation for other scripts. Annotations made sense where there would be a risk of confusion with some other character. It is not clear to us why these are needed. If these are needed, then it should not be in nameslist.
- c. Prof. Kyongsok Kim: In the first edition we did not have any annotations. They were introduced after the 2003 edition for two characters. It was not clear to Korea as to why only two of these 50 characters were picked. At the last meeting the decision was not to add the missing ones in the nameslist. We are proposing it as an annex text instead.
- d. Mr. Michel Suignard: I would have preferred to have the two in the current nameslist removed rather than adding a bunch more.
- e. Mr. Peter Constable: Which were these two?
- f. Mr. Michel Suignard: Characters at 3181 and 3186.
- g. Mr. Martin Hosken: These two were selected because they were not clear to others; they were old characters.
- h. Prof. Kyongsok Kim: We tried to figure out the rationale as to why these two; it is not clear to us. If these two should have annotations, then we suggest having annotations for the rest of the old characters also.
- i. Dr. Umamaheswaran: My suggestion is to remove the current annotations if no one can explain the rationale for these two.
- j. Prof. Kyongsok Kim: Our first choice is to have an annex. The second choice is to remove the current two. The second choice would be acceptable to Korea.
- k. Mr. Peter Constable: They have been there for a long time, since Unicode 2.0.
- l. Mr. Michel Suignard: We had changed the format of the nameslist in 10646; merging the Unicode and 10646 formats. The annotations were all exposed at that time. The 2nd edition exposed the full set of annotations in the nameslists. It was implied that we were going to merge the two lists. The Unicode standard may be able to add the information as a note, after removing the annotation in the nameslist, if these are really needed.
- m. Dr. Deborah Anderson: The U.S. would support removal of the current two. Adding the 50 would set precedence, it would be way too much, for all the scripts.
- n. Prof. Kyongsok Kim: (After a day's break) We considered the issue and have decided to withdraw our comment. We will leave the current annotation on two characters. No changes.

*Comment T2:* ROK suggests the addition of 4 characters:  $\mu$ L, mL, dL, kL, that are included in KSC X1001 (formerly KS C 5601). These are counterparts of CJK Compatibility characters coded at 3395 to 3398.

**Discussion:**

- a. Mr. Michel Suignard: At the last meeting they asked for glyph changes, and at that time we had concerns for compatibility with other standards beyond Korea. Now Korea is asking for four new characters instead to match the Korean national standard. Beyond the fact these should have been proposed as new characters, I do have concerns about mapping issue with current KSX standard. If you are mapping to a non-UCS encoding, we will have an issue with mapping to / from KSX. Being compatibility characters we may lose these. We have precedents like Emoji and the ARIB set.
- b. Mr. Peter Constable: For Emoji, ARIB etc. we did add compatibility characters. The current proposal is really disunifying characters. Existing data and implementations will need to be updated to do the right mapping. You will have compatibility issues with these. It is not clear to me why these cannot be treated as Glyph Variants.
- c. Prof. Kyongsok Kim: If it is only a glyph we can add a note. These are not just glyphs; they are letters standing for Liters.
- d. Mr. Mike Ksar: These are currently encoded as Liters.
- e. Mr. Michael Everson: The existing characters are already used in Korea, for example, at the airport.
- f. They should not be changing the glyphs, nor considering new characters.
- g. Prof. Kyongsok Kim: According to ISO 1000 is specifying the letters lowercase l etc. In Korea we used script l etc. The Korean national body wants to correct the wrong use of these.
- h. Mr. Michael Everson: I think we can keep these as they are, with script l used instead of lowercase l etc.
- i. Prof. Kyongsok Kim: We kept the l unchanged. We changed these to micro, milli, deci and kilo symbols.

- j. Mr. Masahiro Sekiguchi: Have you approved the national standard KSX yet? Probably in Dec 2010.
- k. How much support is there from Industry for the KSX 1001 standard?
- l. Prof. Kyongsok Kim: These were requested by some organizations to the Korean national body.
- m. Mr. Masahiro Sekiguchi: At least in Japan, the revision may or may not be accepted by users of the standard. If it is a good revision it will be accepted, otherwise it will not be.
- n. I would be much worried about the revision. If I were working for a Korean IT company, I would object to this revision due to the incompatibility this revision introduces with existing data and implementations. The revised KSX 1001 may be ignored by the IT users. So our effort here in WG2 to align with KSX 1001 will probably be not worth it.
- o. Mr. Michael Everson: There is compatibility mappings are provided to symbols with Script L. So we cannot change the glyphs for these. There seems to be no option but to propose four new characters.
- p. Mr. Mike Ksar: There will be confusion for existing data and implementation if we introduce new characters.
- q. Prof. Kyongsok Kim: When we do change the standards, we will send letters to the IT companies etc., and they will change the glyphs etc.
- r. Mr. Michel Suignard: If you are just using UCS, you will be better off using two character sequences instead of single symbols. That would be the proper way of representing these units. There is opposition to add new characters; you can always use new fonts with different glyphs. Otherwise, it could produce inconsistencies. It may decompose as script I because of compatibility issues.
- s. Prof. Kyongsok Kim: The reason we need these as single characters, is because most characters can be mapped to Single characters in KSX.
- t. Mr. Michel Suignard: They were done for compatibility with existing standards at that time about 15 years ago. As we go forward we should not be expecting the one to one mappings. New national standards should not be going on the old compatibility principles.
- u. Dr. Umamaheswaran: If Korean standards ask the vendors to change the fonts etc. they may do so, but it does not answer the incompatibility issues with existing implementations or data interpretations.
- v. Mr. Mike Ksar: The issue is backward compatibility --- if you want a new glyph we can create it as a glyph variant.
- w. Mr. Michel Suignard: We can provide an annotation for the specific characters that the glyphs could contain a Latin L, instead of Script L, depending on application.
- x. Mr. Masahiro Sekiguchi: I support the idea of annotations; but be careful about the wording. Instead of lowercase or uppercase L, use ISO 1000 form.
- y. Prof. Kyongsok Kim: I think we should spell out Latin lowercase or uppercase I instead of asking the users to go and look at ISO 1000.
- z. Mr. Michel Suignard: 2113 has an annotation, for liter sign. I will propose text along the lines of 2113. The text may need some further editing.
- aa. Mr. Peter Constable: These symbols already have decomposition with the end result being lowercase l. There should be no confusion to mention lowercase l etc.

**Disposition:** Partially Accepted.

3395 microliter, 3396 milliliter, 3397 deciliter, and 3398 kiloliter compatibility CJK characters, will get the annotations indicating that they can also be represented with glyphs containing uppercase Latin letter L instead of script l.

*Comment T3:* Addition of a new character SQUARE WITH DOTS to correspond to 2-38 character from KSC X 1001 (which is sometimes mapped to UCS 2592 Medium Shade character). The glyphs are very different.

**Discussion:**

- a. Mr. Michel Suignard: This is another mapping related issue. I would like to understand the use of these, before determining whether there is a compatibility issue or not.
- b. Mr. Michael Everson: We could use all the characters in the block to replace with hatched boxes to replace characters. We could support these. The square ones could get properly and correctly annotated for use of colours. The block elements were used in old TV etc.
- c. Prof. Kyongsok Kim: These glyphs and characters are NOT changed in KSX. The people pointed out that there is no corresponding character or glyphs in UCS. As to the shaded character it is not the same as medium shaded.

- d. Mr. Michel Suignard: I am also concerned about 2592.
- e. Mr. Masahiro Sekiguchi: Have you asked the vendors about the character mapping?
- f. Prof. Kyongsok Kim: KSX has not official mapping prescribed to date.
- g. Dr. Umamaheswaran: Some vendors you have identified as having mapped UA252 to KSX A2C6. Will it help by adding an annotation to U2592 that these could correspond to each other even though the glyphs are different? The glyph differences probably could be explained away.
- h. Prof. Kyongsok Kim: If we specify the mapping in KSX the vendors will change to follow. The existing vendors follow their own mapping.
- i. Mr. Masahiro Sekiguchi: have you really polled this change on Korean industry? Computer engineers may not have objected to it. Even if KSX is not responsible for mapping to UCS, a number of people are using the mappings following the tables on the Unicode web site. You will potentially break them.
- j. Mr. Peter Constable: I have a big problem with the mapping of legacy data to UCS; I have no problem for adding a new character.
- k. Prof. Kyongsok Kim: The main users who convert the UCS to KSX will be Koreans. Once we establish the mappings in KS, most users will follow the KSX specifications.
- l. Mr. Mike Ksar: Can we find out the current mappings from Unicode web site?
- m. Mr. Peter Constable: There are at least two vendors, with the mapping tables published for information on the Unicode web site, who map to U2592. You will break these.
- n. Mr. Michel Suignard: if you are defining national standards as sub repertoires of UCS, you will be much better off than creating old encodings as revised or new national standards. By introducing mappings in your national standards you will be faced with the data migration issues.
- o. Mr. Mike Ksar: You are proposing a character and the vendors' mapping for this KSX character is 2592. Why can't you harmonize KSX with ISO/IEC 10646?
- p. Mr. Masahiro Sekiguchi: I have no opposition to the annotation; neither to new character proposal. I have still serious consideration for data mapping issues. However, we respect your position that you are responsible for Korean users.
- q. Mr. Michael Everson: One of the characters added would be a box with dots.
- r. Mr. Michel Suignard: We don't have control on what Korean standard will ask of vendors. A new character in the context of UCS is fine, but mapping remains an issue. it is a Korean matter.
- s. Prof. Kyongsok Kim: If we add this character, some software could have mapped it into the medium shade. The Government implementations etc. using KSX will use the standardized forms; others may be mapping to different characters etc.
- t. Mr. Michel Suignard: Many native applications may not be using the mapping at all; it could be a repertoire issue in which case there is no conflict. Only in case of other than UCS encodings you get into the mapping issue.
- u. Dr. Umamaheswaran: Would it be possible to change the glyph in KSX to match that of UCS, and then add another character showing a box with dots in both UCS and in KSX to avoid the mapping issue? Then KSX will be truly harmonized with UCS.
- v. Mr. Michel Suignard: I think that is another solution that would be workable.
- w. (Discussion was postponed for Korea to consider Dr. Umamaheswaran's suggestion).
- x. Prof. Kyongsok Kim: We considered the issue and decided to withdraw our comment.

*Comment T4: Source reference for "Idu" characters*

Korea has identified that the G source reference to G1 GB12345-90 for 92 Idu characters and 58 Hong Kong characters are not correct. A list of current entries for 91 of these, referencing G source of the form G1-7Dxx is provided in the comment. Two alternatives are suggested to rectify the situation. Korea also points out a discrepancy in the number of Idu characters – 92 versus 91 or 94 in the G1 source, pointing out that GB 12052-89 contains 94 Idu characters, and seeks clarification from China. Also 58 Hong Kong characters are not in GB 12345-90.

(The initial findings and recommendation by the project editor is contained in the draft disposition document [N3892](#).)

There is some background information concerning this in Mr. Ken Lunde's book (CJKV Information Processing, page 179-180 2nd edition). It is apparently true that these characters are not part of the official edition of GB12345-90. After some investigation, it looks like the characters from G1-7C21 to G1-7C5B (except for G1-7C59) corresponds to the 58 Hong Kong characters and have all a H source as well.

Interestingly enough, 7 Korean “Idu” characters have no K references, and 3 Korean “Idu” characters have a KP reference, but no K reference. Concerning the Hong Kong character, it is theoretically possible to just remove the G1 source because there is also an H source. To maintain a G source, either a new source has to be identified, or GB12345 needs to be updated to include these characters; but it could not be named GB-12345-90. For the “Idu” characters, the best solution is to add GB12052-89 as a new G source and document the 92 entries mentioned above with the appropriate values from GB12052-89. Annex S source separation rule would also need to be modified to take into account these new sources.

#### Discussion:

- a. Mr. Michel Suignard: As to the idu characters, of the 92 characters Korea found 91 were in GB standard but not covered by source separation rule. Should these be added to GB-12345 or a new source? We did not find the 92nd one. Similar issue with 58 HK characters; should these be GB-12345 or another valid source. Question about 91, 92 or 94. Working with Mr. Ken Lunde, I found 91. These 91 should be identified with a new GB source. We never found 92nd. It was a Chinese minority character from Canton (a small mountain) - no identified source. It exists as a character but not in any official source reference today. For the other 58, the H definitions were found. But they do not have any G source. Either we remove the G source or China has to come up with their corresponding GB source. I don't have a solution for these. Changing GB 12345 is an option, since it was already published 1990; unless you come up with GB12345-2010 etc. We can change GB 12345-1990 to GB 12052-89. There are 59 characters with no G-source. We would like to fix before the data goes to DIS.
- b. Mr. Chen Zhuang: I asked my colleagues to confirm these that all the Idu characters are not in the standard. If we cannot find these in other standards, we will change them to the real standard as suggested by Korea. The 58 characters are fine.
- c. Mr. Michel Suignard: Strictly speaking we have to remove the G source for the 58 H characters.
- d. If the missing character has a KX source we can add it.
- e. Dr. Lu Qin: For the H characters, the HKSCS standard was published. It was not referenced in the standard. GB 1990 was not reflected because the HKSCS was published later. It should be OK to remove the G source for these.
- f. Mr. Michel Suignard: Today the main block has a G source for every character. By removing the G for 58, it will be precedence.
- g. Dr. Lu Qin: There were some HK characters included in some Chinese standards. I will check and if I can find the GB standard I will get back to you.  
(Mr. Chen Zhuang provided feedback after checking with experts in China).
- h. Mr. Michel Suignard: For the 91 Idu characters, we have found another GB standard to reference - GB 12052-89 (GK will be the abbreviation). China can confirm these. Mr. Ken Lunde has done due diligence on these. I worked with China and found another GB source for the minority Canton character 5C83. Mr. Chen Zhuang has sent me the source information for the HK sources for the 58 H characters - GB/T 155564-1995.

**Disposition:** Accepted in principle.

The editor has all the needed information. The G1 source will be replaced by a new source GH corresponding to GB15564-1995 and the entries in CJKU\_SR.txt will be amended as shown in the final dispositions in document [N3936](#).

*Comment T5:* Korea suggests removing KP1-0000 as source reference for 0FAD4 (see also document [N3899](#)) in the 3<sup>rd</sup> edition, since it was not there in the 2<sup>nd</sup> edition. (It is an ideograph which does not have any other source reference.)

#### Discussion:

- a. Mr. Michel Suignard: I extended the notation KX0000.00 that notifies no source exists in the unified set, to the compatibility area KP1-0000 etc. There is also the Taiwan case. There are three compatibility characters that are now orphans with no source references.
- b. Dr. Umamaheswaran: A friendly amendment. A simplification would be to use CI-0000 and UI-0000 for no sources to remove sensitivity to national sources.

**Disposition:** Accepted in principle. Use: CI-0000 and UI-0000, instead of KP1-0000, K0-0000 etc.

Based on the above dispositions, *Korea reversed its vote to Acceptance.*

### 7.1.7 Norway: Positive with comments

*Comment GE.1:* Points out some deviations regarding presentation of terms and definitions in Clause 4 Terms and definition, from the ISO/IEC

Mr. Michel Suignard: I checked with the directives and will fix it.

**Disposition:** Accepted.

*Comment T.2:* Referring to the annotation for character

U+014A LATIN CAPITAL LETTER ENG:

- glyph may also have appearance of large form of the small letter,

Norway points out that in Sami, this letter can absolutely not have the appearance of a large form of the small letter, in contrast to Mende (and IPA). Suggests that the only viable solution would be to add another lower-case/upper-case pair, where the upper case shall have the appearance of a large form of the small letter for use with Mende and IPA. Also points out whether 'Eng' is the name known in Mende and IPA usage.

(Editor: the character in question is U+041A, not U+014A).

#### **Discussion:**

- Mr. Michel Suignard: This seems to be another request for character addition without the proper form. Character additions not only require a proposal summary form but also some detailed evidence for the need of new characters.
- Mr. Michael Everson: There is an issue about which character can be used for which language etc. We need a contribution addressing the problem. The authors have to address whose data is broken.

**Disposition:** Out of scope.

**Action item:** Norway is invited to submit a separate contribution proposing new characters addressing the issue, including expanding on whose data is broken.

### 7.1.8 USA: Positive with comments

*Comment T.1:* The U.S. proposes addition of three named sequences for Sinhala in Clause 25.

**Disposition:** Accepted.

#### **Relevant resolution:**

**M57.09 (Named USIs for Sinhala):**

**Unanimous**

WG2 accepts to add the following three named UCS sequence identifiers to the standard, using the syntax of USIs in the standard:

<0DCA, 200D, 0DBA> SINHALA CONSONANT SIGN YANSAYA  
<0DCA, 200D, 0DBB> SINHALA CONSONANT SIGN RAKAARAANSAYA, and  
<0DBB, 0DCA, 200D> SINHALA CONSONANT SIGN REPAYA

*Comment T.2:* The U.S. proposes several changes to the current encoding of Miao script – including extending the block by one column, addition of 5 new characters, renaming of several characters, and reordering of the resulting repertoire; rationale and details are provided in document [N3877](#).

**Disposition:** Accepted. See also comment T5 from Ireland.

#### **Relevant resolution:**

**M57.11 (Miao script):**

**Unanimous**

With reference to document [N3877](#) WG2 accepts the following changes to the encoding of Miao script:

- Add one column to the Miao block so that it extends from 16F00 to 16F9F
- Insert the following 5 additional Miao characters, rearranging the characters in the block:
  - U+16F0C MIAO LETTER YI TTA
    - used in Hei Yi
  - U+16F12 MIAO LETTER YI NNA
    - used in Hei Yi
  - U+16F31 MIAO LETTER YI DZHA
    - used in Hei Yi
  - U+16F56 MIAO VOWEL SIGN AHH
    - used in Gan Yi
  - U+16F5B MIAO VOWEL SIGN WO
    - used in Hei Yi
- the following name changes:
  - 16F51 from MIAO LETTER ASPIRATION to MIAO SIGN ASPIRATION

16F52 from MIAO LETTER REFORMED VOICING to MIAO SIGN REFORMED VOICING,  
16F53 from MIAO LETTER REFORMED ASPIRATION to MIAO SIGN REFORMED ASPIRATION  
16F7D from MIAO LETTER TONE RIGHT to (moved) 16F8F MIAO TONE RIGHT  
16F7E from MIAO LETTER TONE TOP RIGHT to (moved) 16F90 MIAO TONE TOP RIGHT  
16F7F from MIAO LETTER TONE ABOVE to (moved) 16F91 MIAO TONE ABOVE, and  
16F80 from MIAO LETTER TONE BELOW to (moved) 16F92 MIAO TONE BELOW

See the final chart for the Miao block is as shown in document [N3945](#).

*Comment T3:* The U.S. requests changing ‘POMMY’ to ‘POMMEE’ in the names for 1F540, 1F541 and 1F542, with the rationale provided in document [N3884](#).

**Disposition:** Accepted.

**Relevant resolution:**

**M57.05 (Miscellaneous name changes):**

**Unanimous**

WG2 accepts the following character name changes in the standard:

1F540 - from CIRCLED CROSS POMMY to CIRCLED CROSS POMMEE

1F541 - from CROSS POMMY WITH HALF-CIRCLE BELOW to CROSS POMMEE WITH HALF-CIRCLE BELOW

1F542 - from CROSS POMMY to CROSS POMMEE

*Comment T4:* The U.S. asks the following formal name alias be added to U+2118: “WEIERSTRASS ELLIPTIC FUNCTION.”, to clarify the identity of this character; the current name is a misnomer, as it doesn’t describe the glyph (which is lowercase) or its function.

**Disposition:** Accepted. Note that ‘formal name alias’ is normative and this is a technical change.

**Relevant resolution:**

**M57.06 (Formal name alias):**

**Unanimous**

WG2 accepts to add the formal name alias “WEIERSTRASS ELLIPTIC FUNCTION” to 2118 SCRIPT CAPITAL P.

*Comment T5:* The U.S. requests that the documentation of the second field of nusi.txt be restored to:

• 2nd UCS sequence: (<space>)\* (hhhh|hyyyy|hhhhh) (<space> (hhhh|hyyyy|hhhhh) )+,

to prevent potential discrepancies between nusi.txt and Unicode NamedSequences.txt. Also suggests that an explanatory note be added on this format and its relationship to the sequence syntax per clause 6.6 in the standard. A rationale for this is provided.

**Discussion:**

- a. Mr. Michel Suignard: The syntax in the .txt files were not per clause 6.6 in the standard. The explicit files are self-contained following the ISO/IEC 10646 syntax. The U.S. comment is requesting to go back to the previous format. I do not wish to get another no vote from Japan.
- b. Dr. Deborah Anderson: The U.S. withdraws the comment. We will work with Japan on coming up with some solution.

All the *disapprovals* have been resolved. The comments are all resolved satisfactorily. The third edition progresses to the next stage. See *relevant resolution M57.12 on page 48*.

## **7.2 Principles & Procedures**

**Input document:**

[3802](#) Updated P&P post meeting 56; Recording Secretary – Uma; 2010-10-07

Document [N3802](#) reflects the updates accepted at the last meeting. Dr. Umamaheswaran pointed out the changes from the previous version.

## **7.3 Proposed additions to P&P**

**Input document:**

[3944](#) Proposed additions to WG2 P&P and proposal summary form; Uma; 2010-10-07

Dr. Umamaheswaran introduced document [N3944](#). It contains proposal for adding text for a guideline on Decimal digits and two questions related to character properties in the summary form; he explained the rationale for the text addition and the rationale behind the questions.

**Discussion:**

- a. Mr. Masahiro Sekiguchi: Suggest rewording .. “part of the intended writing system of that script”.
- b. Mr. Martin Hosken: As proposers of scripts, we do not have the background information or insight into

why these questions are being asked. Some tutorial text and some hints towards assisting proposers will be needed. The questions have to be softened; it sounds like they are requirements.

- c. Mr. Peter constable expanded on the rationale for the additional questions to P&P, relating them to the properties-related data in Unicode, and to the security-related UTRs and associated data.
- d. Mr. Michael Everson: It would be helpful to have an explanatory material on what the confusability is all about and what is expected of proposers in simpler terms than what is there in the UTRs.

**Action item:** For national body feedback. Dr. Umamaheswaran to revise the document based on feedback.

## 7.4 Roadmap snapshot

Input document:

[3929](#) Roadmap snapshot; Uma; 2010-09-28

Dr. Umamaheswaran presented the document [N3929](#).

**Relevant resolution:**

**M57.24 (Roadmap snapshot):**

**Unanimous**

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document [N3929](#)) to the WG2 web site and communicate the same to SC2 secretariat.

*A side discussion related to roadmaps:*

- a. Mr. Michael Everson: A suggestion has been made to open up a fourth plane for Roadmap work.
- b. Mr. Michel Suignard: I was not happy that we opened up a TIP and have not populated it so far. I prefer not to do the same again. When a character comes along to be encoded in a fourth plane then we can open it up.
- c. Dr. Umamaheswaran: The roadmap committee, if it wants to use a fourth plane as a scratch pad they are free to do so. They could use even the private use plane without any conflict. I don't think WG2 needs to know. Otherwise we may end up in sending the wrong message that we are opening up another plane for encoding purposes.
- d. Mr. Martin Hosken: What happens when a proposal is made and we have accepted it. Will it remain in the scratchpad space used by Roadmap committee?
- e. Dr. Umamaheswaran: No. It will be moved to the space that it was allocated by WG2.

## 8 IRG status and reports

Input documents:

[3849](#) Update of N3794 - Annex S clause S.1.5 rewrite; Mr. Michel Suignard; 2010-06-22

[3857](#) IRG 34 Resolutions; Lu Qin; 2010-06-25

[3858](#) IRG Summary; Lu Qin; 2010-09-15

[3859](#) Response to request to revise Annex I or WG2 P&P; Lu Qin; 2010-06-28

### 8.1 Summary of IRG activities

Input document:

[3857](#) IRG 34 Resolutions; Lu Qin; 2010-06-25

[3858](#) IRG Summary; Lu Qin; 2010-09-15

Dr. Lu Qin: [N3858](#) is a summary of IRG 34 Resolutions, contained in document [N3857](#). I will go through the summary.

- *Item 1:* Macau meeting was already approved – Nov 8/12 2010. The next one Meeting 36 will be in Chong Qing, China, 2011-04-11/15; Meeting 57 will be in Mountain View, CA; hosted by Adobe or Google, 2011-11-07/11. WG2 meeting 58 will be in June 2011 in Helsinki. We will have two IRG meetings before the next WG2. We will have two rounds of ext B review.

*See relevant resolution M57.29 on page 49, regarding approvals of meetings IRG 36 and 37.*

- *Item 2:* We have completed the FDIS charts review and given to the project editor. FDIS contains the results.
- *Item 3:* We have planned for two rounds of review of extension B. Four subgroups of IRG, with two members per subgroup, reviewing sections of extension B; then it will be rotated in the second round. Four subgroups will review all of extension B. The consolidated list of round 1 is already produced. After the next IRG meeting, round 2 will start. Consolidation will be in meeting 36 in April 2011. Any needed changes will be resolved in a month or two after that.

- Mr. Mike Ksar: Do you expect to have another draft after November meeting this year? . (We might.)
- *Item 4:* Macau had provided evidence for some but not all of their Supplementary set for extension E, for reasons of personal data protection. However, we have had no exception, showing them how to hide the personal data and still provide the necessary information to IRG.
  - *Item 5:* Extension E collection was frozen as of IRG 33. Any additional request will be the extension after extension E. Extension E will be reviewed and consolidated from IRG 34.
- Mr. Mike Ksar: How many characters are in extension E?  
Mr. Chen Zhuang: Around 6000.
- *Item 6:* The work of Old Hanzi group will be presented at next IRG meeting. Their process has been improved. After IRG meeting 36, we may submit the results to WG2.
  - *Item 7:* IRG has submitted a revised text for revising Annex S to the editor. Document [N3849](#) contains the revised text.
  - *Item 8:* CJK extension C Font was also submitted to the editor. I have not integrated the fonts yet in the 3<sup>rd</sup> ed. I found some errors . TCA had sent it to me. I need to be informed when the font is sent to my main email id, not the alternate email id. There is a production issue. New fonts for G and T source will be used. I would like IRG members to review the new charts, containing about 600+ characters. In my opinion the G source is fine, I did not find any mistakes. There is one character difference. IRG should take a look at it. It was a visual check.
- Mr. Mike Ksar: Are you aware that the new fonts will be only in 3<sup>rd</sup> edition? The second edition is already in ISO. The new font will not be reflected in the 2<sup>nd</sup> edition.
- Mr. Bear Tseng: Yes. Extension C is OK. There are some other changes.
- Action item:** IRG should review the Extension C charts G and T columns, produced with the new font in 3<sup>rd</sup> edition. Make it part of the 3<sup>rd</sup> edition disposition of comments.
- *Item 9:* IRG produced a revised text for Annex I for WG2 P&P in document [N3859](#).
- Dr. Umamaheswaran: I reviewed the text and I think it is suitable for including in WG2 P&P.
- *Item 10:* IRG has established the working document series (IWDS) and the IRG editors will be kept up to date.
- Mr. Mike Ksar: Thank you Dr. Lu Qin and the IRG for your work and input.

## **8.2 Format of multi-column charts for main CJK block**

Mr. Mike Ksar: There is one more item the editor would like to bring up, based on an email from China.

Mr. Michel Suignard: At the last meeting based on the Korean input on layout of main block of CJK; Korea suggested to shrink the charts since the KP column was empty. New format for the main block with G, T, J, K, V and H columns was included with the KP column left out. H used to be in after V and ended up in the next line. We talked about it in San Jose meeting. But no further input was given to me. I went with the disposition of comments in April. The FDIS was created based on that. China would like to bring the H closer to G and T. There is another Chinese source – Macau. But it is not in the main block. There are two additional ones M and U. We can change the headings - we can put G, T without the higher level heading C for these. This would be the simplest of the solutions. Other way is to bring in the implied H source next to the T source under the C column. It will impact every extension of the standard. It is doable but will have more impact. All the C sources will be together .. except M. We can bring in the M also, but will not show up in the main block. This would forever prohibit an M source being in the main block. That would make the charts unstable. The first option of having G, T, H etc as column heading would be the best. An explanatory text would describe the relation to layouts from previous editions. It will also impact the Unicode charts. Unicode 6.0 will be published this week. The 2<sup>nd</sup> edition will be produced with current layout. We can change for future editions. My suggestion would be not to create a C column; but describe the G, T, H, M etc.

### **Discussion:**

- a. Mr. Chen Zhuang: Thank you for your help Mr. Michel Suignard. I will prefer having the C column heading. We may vote NO at the JTC1 level for the FDIS ballot, because C J K V and H shows up. I should have noticed this earlier.
- b. Mr. Michel Suignard: If you could get an input on replacing C with G and T as column heading, it would be least disruptive. We will have G, T, J, K, V and H. We can reproduce the main block to do this. I can produce the revised charts for 2<sup>nd</sup> edition for ITTF, without page number disruption etc.

- c. Mr. Chen Zhuang: I can take this forward to my colleagues and see if it would be acceptable. But in the third edition we will have the problem.
- d. Mr. Mike Ksar: We can take a resolution that the 2<sup>nd</sup> edition chart for main CJK block will be changed to replace the C with G and T. The third edition could go ahead copying this from 2<sup>nd</sup> edition. In Helsinki we could take a decision on the charts.
- e. Mr. Michel Suignard: We can add the M in a least disruptive way.
- f. Prof. Kyongsok Kim: For second edition, the FDIS should be in the proposed format? G, T, .. etc. instead of C. Would it be acceptable to have G, T, J, K, V, H in second edition? I agree with China that H column is not next to G and T under C. For the third edition, would G, T, J, K, V, H be acceptable?
- g. Mr. Chen Zhuang: We can discuss the third edition in Helsinki.
- h. Mr. Masahiro Sekiguchi: If we decide to change the format for second edition, it will affect some text also in FDIS. I am afraid that there are some words that describe what C means in the charts. If that part of the text is small enough I would have no objection.
- i. Mr. Michel Suignard: it is kind of nice .. the text does not mention C at all. The picture on page 42 of the standard has to change. One main page and the file for the main block will change in FDIS. Sub clause 23.2.1 is the only place.
- j. Mr. Masahiro Sekiguchi: On the chart for 3<sup>rd</sup> edition, the discussion on the format is being postponed to next meeting. We will have too short a time before publishing the 3<sup>rd</sup> edition; many of the IRG experts will need more time to review the charts carefully.
- k. Mr. Mike Ksar: This meeting may be the right time. Default position would be G, T, J, K, V, H etc.
- l. Mr. Chen Zhuang: it will cause problem for us; if we use G, T, J, K, .. I have to vote NO for the FCD ballot.
- m. Mr. Michel Suignard: I agree that the compromise is not perfect. Major difference between 2<sup>nd</sup> and 3<sup>rd</sup> edition will be disruptive. It will also cause problems with Unicode publications.
- n. Prof. Kyongsok Kim: If we move H column to be next to G and T, there will be lots of empty cells – and this is not easily readable.
- o. Mr. Chen Zhuang: The Chinese people interpret it as country names and not as source names for the languages. I understand it, but I cannot convince my colleagues.
- p. Mr. Michel Suignard: We could get rid of all the headers altogether . Other blocks don't have any headers. We look at the source reference below the glyph. Looking at the charts, moving the H column inside will make the charts look less pretty; H is almost empty.
- q. Dr. Umamaheswaran: I would support the suggestion of removing the header as the long term solution. The other CJK blocks don't have any headers anyway. So it would be consistent.
- r. Mr. Mike Ksar: We can make a decision for no header at this meeting and get feedback.
- s. Mr. Masahiro Sekiguchi: Can you contact your colleagues in China and get some feedback.
- t. Mr. Michel Suignard: There is one difference; we leave holes for unused glyphs in the main block unlike the others.
- u. Dr. Umamaheswaran: If there is need to change the format for main block we could do it in the future (to remove empty slots similar to other blocks).
- v. Mr. Michel Suignard: It is doable .. I don't want to change the sequence of the sources – which will be more disruptive.
- w. Mr. Bear Tseng: I will discuss this with China and give you feedback.
- x. Dr. Lu Qin: For the H column, we will never object to what China wants. I don't have any position now.
- y. Mr. Mike Ksar: With your HK hat, if China votes yes, would you have any problems?
- z. Dr. Lu Qin: Under the H hat, we have no say.
- aa. Prof. Kyongsok Kim: If we have headers, we will have some indication about empty positions. We prefer to have meaningful headings.

**Relevant resolution:**

**M57.01 (Headers in CJK main block charts):**

**Objection: Korea; Acceptance: Canada, China, Ireland, Japan, UK, and USA**

WG2 decides to remove the headers C, J, K, V and H in the charts for the CJK Unified Ideographs block (4E00 to 9FCB) in the BMP of the standard, retaining the glyphs in the current sequence for source references (G, T, J, K, V, H), including retaining any blank slots in their current positions. WG2 instructs its project editor to reflect this decision

in the charts for FDIS of ISO/IEC 10646 2<sup>nd</sup> edition prior to issuing the FDIS ballot, and to reflect the same change in the text to be generated for the third edition at the end of this meeting.

### 8.3 Response to request to revise Annex I WG2 P&P

Input document:

[3859](#) Response to request to revise Annex I or WG2 P&P; Lu Qin; 2010-06-28

Accept. Include in P&P replacing current text.

**Relevant resolution:**

**M57.25 (Annex I of P&P):**

**Unanimous**

WG2 accepts the text for replacing section I.2 Guideline for "to be disunified" errors, in document N[3859](#) from the IRG, and instructs its ad hoc on Principles and Procedures to update Annex I in the P&P document (as document N3902) for adoption at WG2 meeting 58.

## 9 Script contributions related to ballots

### 9.1 New Indian Rupee Sign

Input documents:

[3862](#) Proposal to encode the INDIAN RUPEE SIGN in the UCS; Michael Everson; 2010-07-19

[3868](#) India's National Currency Symbol; Rabin Deka – Individual Contributor; 2010-07-15

[3869](#) Proposal to encode the Indian Rupee Symbol in the UCS; Department of Information Technology Ministry of Communications & IT, Government of India; 2010-07-20

[3887](#) Proposal to add rupee symbol in ISO 10646; BIS – Indian National Body, Laxman Swarup; 2010-09-01

There were four contributions N[3862](#), N[3868](#), N[3869](#) and N[3887](#).

Mr. Michael Everson: India invented this character recently and is urgently required. Many people in India have incorporated these in fonts replacing different existing characters in the absence of encoding. Government of India has requested that these be urgently encoded in Unicode. The UTC has discussed this.

**Discussion:**

- a. Mr. Peter Constable: This has been discussed in the UTC, and it strongly supports India's proposal N[3869](#) - we concur with Ireland's proposal which supports India's proposal. Many implementations are trying to get these in place. They are trying to implement within the next few months. We strongly request that no change in code position be considered. The UTC plans to include it in Unicode 6.0, which will be released shortly. The intent of Unicode 6 was to synchronize with 2nd edition; but now it will have this new 20B9 in addition.
- b. Dr. Deborah Anderson: Document N[3887](#) is the most recent document and it includes the correct properties.
- c. Dr. Umamaheswaran: I support the inclusion of this as urgently needed. Also want to point out that the character is on key position AltGr+4 and will be included in next version of INSCRIPT.
- d. Mr. Michel Suignard: We want to ensure that we are not contradicting the script-specific versus currency block choice. A cross reference to the current 20A8 RUPEE SIGN, which is in current use for the Indian Rupee sign, will also be needed.
- e. Dr. Deborah Anderson: There was press report in which Ms. Swaran Lata of the Government of India indicated that it will take more time to go through the International Standards.

**Disposition:** Accepted for inclusion in 3<sup>rd</sup> edition. See item 'a' in the relevant resolution M57.02 below.

**Relevant resolution:**

**M57.02 (Miscellaneous character additions):**

**Unanimous**

WG2 accepts the following characters for encoding in the standard:

- a. 20B9 INDIAN RUPEE SIGN with its glyph as shown in document N[3887](#), with a cross reference pointing out that it is not the same as the current 20A8 RUPEE SIGN.
- b. 1CF3 VEDIC SIGN ROTATED ARDHAVISARGA  
1CF4 VEDIC TONE CANDRA ABOVE  
1CF5 VEDIC SIGN JIHVAMULIYA, and  
1CF6 VEDIC SIGN UPADHMANIYA  
with their glyphs as shown on page 14 of document N[3890](#).
- c. A7F8 MODIFIER LETTER CAPITAL H WITH STROKE  
A7F9 MODIFIER LETTER SMALL LIGATURE OE, and  
A7AA LATIN CAPITAL LETTER H WITH HOOK (along with the related annotations from document N[3840](#))  
with their glyphs as shown on page 27 of document N[3890](#).

- d. 1F16A RAISED MC SIGN, and  
1F16B RAISED MD SIGN  
with their glyphs as shown on page 50 of document [N3890](#).
- e. 2CF2 COPTIC CAPITAL LETTER BOHAIRIC KHEI, and  
2CF3 COPTIC SMALL LETTER BOHAIRIC KHEI  
with their glyphs as shown on page 17 of document [N3890](#).
- f. 2E33 RAISED DOT  
2E34 RAISED COMMA  
with their glyphs as shown on page 1 of document [N3912](#).
- g. 2D66 TIFINAGH LETTER YE, and  
2D67 TIFINAGH LETTER YO  
with their glyphs as shown on page 20 of document [N3890](#).
- h. CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source  
reference UTC-00867, and with its glyph as shown in document [N3885](#).  
The IRG convener is to take note of this addition and remove it from the IRG's collection for future  
extension.
- i. 0EDE LAO LETTER KHMU GO, and  
0EDF LAO LETTER KHMU NYO  
with their glyphs as shown on page 2 of document [N3893](#).
- j. A792 LATIN CAPITAL LETTER C WITH BAR, and  
A793 LATIN SMALL LETTER C WITH BAR  
with their glyphs as shown in document [N3896](#).

## 9.2 *Missing documents for Korean source references K2 to K5*

Input document:

[3898](#) R. O. Korea's Response to AI 55-2-a RE: K2 ~ K5 - M55.18 (Missing documents for Korean source references K2 to K5); R. O. Korea NB; 2010-09-20

Discussion:

- a. Prof. Kyongsok Kim: We had an action item to find the missing source references K2 to K5. We were partially successful. We were able to find K2, K3 and K5. But we could not find K4 yet. The difficulty in finding sources for K2, K3 and K5 – referred to some documents. But they were embedded in some report and it was not readily locatable. There may not be a separate report for K4 – and could have been submitted directly to IRG. Not all IRG documents could be found. We are still continuing the search. There is no change in the 3rd edition.
- b. Mr. Mike Ksar: There is one more ballot for the CD. The CD text as it progresses will remain the same. We don't need to do anything in WG2 for now.
- c. Prof. Kyongsok Kim: Our action item is partially completed.

## 9.3 *Koranic characters*

Input document:

[3920](#) Comments on Resolutions from Meeting 56 (and the 3rd edition) concerning Koranic characters (N3791); Azzeddine Lazrek, Cadi Ayyad University, Faculty of Science, Marrakesh, Morocco; 2010-07-10

Discussion:

- a. Dr. Deborah Anderson: The document is feedback from some experts. They comment on two characters. They suggest naming 08F0 and 08F2 to have word OPEN in them. The third one they want to have different shape.
- b. Mr. Peter Constable: The UTC experts have reviewed this and our opinion is there is no need to change the names or the shape.
- c. Mr. Mike Ksar: The meaning does not change – the shape is not wrong in the CD. It is a matter of preference.
- d. Mr. Michael Everson: They look stacked in the example.

**Disposition:**

Not accepted. The proposal is based on stylistic preferences rather than an error in the names or in the glyph shape. Deborah has communicated to the authors about the disposition.

## 9.4 *Armenian Eternity Sign*

Input documents:

[3923](#) Proposal to add an Armenian Eternity Sign to the UCS; Karl Pentzlin; 2010-09-24

[3924](#) Proposal to encode two symbols for Armenian in the UCS; Michael Everson; 2010-09-24

Mr. Michael Everson: Document N3923 is from Mr. Karl Pentzlin from Germany. It goes along with document N3924. Referring to document N3924, the proposed character has been known for a long time. It was in the 7 bit standards for Armenian. They had encoded one of these. The directionality of the character is meaningful in Armenia, similar to the left and right facing Swasti signs. Examples and inscriptions for both directions are shown in N3924. The mapping to the Armenian standard would be the Left-Facing. The Right-Facing is for use by those who needs it. Mr. Karl Pentzlin had provided contacts within SARM and I wrote them a summary of the contributions for their comments. Mr. Yedo Kazarian emailed me that -- thanks for informing us, and SARM supports your contribution. They are not using UCS in Armenia, but are using their own 8 bit standards. I would like these two characters to go into the ballot. If WG2 thinks it needs more study it could go to Amendment 1.

**Discussion:**

- a. Mr. Mike Ksar: Armenia suggested one character, but you are suggesting two, and they are not going to use one of these.
- b. Mr. Michael Everson: They will be using it.
- c. Dr. Deborah Anderson: The U.S. national body preference is to get these into Amendment 1.
- d. Mr. Peter Constable: The nature of these symbols is that they are like Dingbats; the inclination would be not to include them in the Armenian block, but elsewhere like other common-use symbols.
- e. Mr. Michael Everson: As long as the name has Armenian it should be OK. There is also space in the Armenian block.
- f. Mr. Peter Constable: I would like to consider these for Amendment 1; it gives us opportunity for making technical comments.
- g. Mr. Michel Suignard: My inclination would be not even to use the proposed names, like the pictographic symbols. We can use the Armenian in a named alias. The main name having Armenian would be probably limiting. It would be more visible in the pictographic symbols block in the SMP.
- h. Dr. Umamaheswaran: We have to keep in mind that one of these is used in the national standard as well. The mapping consideration is something we normally give some due weight to.
- i. Mr. Mike Ksar: The Armenian standard was developed after UCS was published. I do not consider that a possible reason for encoding in the standard.
- j. Mr. Michael Everson: Armenians are not claiming that because it is in the standard. I agree we should not encourage it.
- k. Mr. Peter Constable: Dr. Umamaheswaran's point is that because it is in the national standard we may need to consider keeping in the Armenian block. Mr. Michael Everson also suggested they could be elsewhere also.
- l. Mr. Michael Everson: There is space in the Armenian block. We kept the Swasti sign in the Tibetan block for a reason.
- m. Dr. Deborah Anderson: Did they specify where they want the characters in their feedback?
- n. Mr. Michael Everson: Not specifically. They supported the contribution.
- o. Mr. Martin Hosken: I proposed 1F53E and 1F53F in the miscellaneous pictographic symbols, and include in Amendment 1 for additional study.
- p. Mr. Michael Everson: As to the names, we should keep the proposed names.
- q. Mr. Masahiro Sekiguchi: Are we concluding to include in Pictograph symbols? The name of the symbols is Eternity? Is it popular? They have religious meaning in their culture. Locating them in the general users' area may lead to use of these by others who are not sensitive to their culture. For example, for decorative purposes. Such use may hurt their cultural sensitivity. My preference would be to put in the Armenian block.
- r. Mr. Martin Hosken: It is a valid question. We need to ask Armenian about the sensitivity to cultural aspects.
- s. Mr. Mike Ksar: I agree with Mr. Masahiro Sekiguchi on the point about the cultural sensitivity. My preference would be to put it in the Armenian block now.
- t. Mr. Michel Suignard: There are plenty of such religious symbols in the current miscellaneous Pictographic symbols. These characters will not be new in the sense that it is indicative of the cultural aspects associated with any culture or script etc. We can always move it out based on ballot comments.
- u. Mr. Masahiro Sekiguchi: We know Armenians will be reviewing the positions and we can take action later. I am agreeing with going ahead with including them with the pictographic symbols for now. I just want to let them know of possibility of others using these symbols for something else.

- v. Mr. Michael Everson: I will take the discussion at this meeting as feedback to Armenians and get their opinion.
  - w. Dr. Umamaheswaran: I would request Mr. Michael Everson to attach the supporting email from Armenia to the contribution.
- The needed fonts are available.

**Relevant resolution:**

**M57.13 (Armenian additions):**

**Unanimous**

WG2 accepts to encode:

1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN, and  
1F53F LEFT-FACING ARMENIAN ETERNITY SIGN  
with their glyphs as shown in document [N3924](#).

**Action item:**

Mr. Michael Everson is to contact Armenia about the discussion at the meeting regarding Armenian Eternity symbols, and get the feedback to WG2.

## 10 Script contributions not related to ballots

### 10.1 Bassa Vah script

Input document:

[3847](#) Revised proposal for encoding the Bassa Vah script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project); 2010-07-31

[3941](#) Final proposal for encoding the Bassa Vah script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project); 2010-10-07

Document [N3847](#) replaces [N3839](#). Document [N3941](#) is a further revision.

Mr. Michael Everson: At the last meeting we introduced the document with nine columns. Based on further input [N3847](#) proposes five columns. Based on new input from experts we discovered we need only three columns. Document [N3941](#) is a third revision to the proposal. The revised proposal is based on experts' input. There is no casing in the script. There is no evidence of these. The revised proposal removes the case differences. The innovations such as using case pairs etc. are not used. The users in the community are using different styles in fonts. The revised proposal has three columns of what they really need. Request is to put this in Amendment 1. There will be two more supporters to be identified in the proposal summary form.

Dr. Deborah Anderson: I have worked with the user community, and even though the U.S. has not seen the latest revision, I would support us going ahead with it.

**Relevant resolution:**

**M57.15 (Bassa Vah script):**

**Unanimous**

WG2 accepts to create a new block named Bassa Vah in the range 16AD0 to 16AFF, and populate it with 37 characters, some of which are combining, in code positions 16AD0 to 16AED and 16AF0 to 16AF6, with their names and glyphs as shown on page 4 in document [N3941](#).

**Action item:** Roadmap ad hoc - Roadmap to reflect latest revised proposal.

### 10.2 Latin Capital Letter With Hook

Input document:

[3840](#) Proposal to encode LATIN CAPITAL LETTER H WITH HOOK; Lorna A Priest (SIL International); 2010-05-03

Dr. Deborah Anderson: This is a request for a single character to be used in Chad. The national alphabet can be written in Arabic and Latin. It has a case relationship to 0266 Lowercase H with Hook.

**Discussion:**

- a. Mr. Peter Constable: The UTC experts have reviewed this and agree to go into a ballot.
- b. Dr. Deborah Anderson: The U.S. national body also supports accepting this to go into a ballot.
- c. Dr. Umamaheswaran: This is from the ministry of education in the country; so I propose that we include it the CD of 3<sup>rd</sup> edition.

Accepted. See *item 'c' in relevant resolution M57.02 on page 29*.

### 10.3 Coptic Numbers

Input documents:

[3843](#) Final Proposal to Encode Coptic Numbers in the UCS; Script Encoding Initiative (SEI); Author: Anshuman Pandey; 2010-05-24

[3886](#) Towards the encoding of a complete set of Coptic numbers in the UCS ; Michael Everson, Stephen Emmel (Universität Münster); 2010-09-08

Dr. Deborah Anderson: Document N[3843](#) is proposal from Mr. Anshuman Pandey for 27 Coptic numbers, a combining mark and a control format to use over the digits, similar to Arabic subtending marks. This is a revised proposal from N[3786](#).

Mr. Michael Everson: Document N[3886](#) is a response to document N[3843](#). The Coptic experts have some concerns. The subtending mark is not considered as Coptic by the experts. It is used in Coptic and in Arabic. The Coptic tradition would be the macrons. The proposal for Coptic number mark – we don't believe will have the behaviour similar to other characters in a Coptic font. If it is required in an Arabic context then we suggest this be encoded in corresponding Arabic numbers. The technology for subtending is available in the Arabic context but not in Coptic mark. We prefer to call it Arabic Coptic Number Mark and move it to Arabic block. We also have concerns about Figure 6, which shows fractions and multiplications and divisions etc. The set of EPAC numbers is not complete in our opinion. No one so far knows about these fractions. We have requested more information related to these. We prefer not to have one set of numbers now and a set of fractions later. One of the fractions is in the current Coptic block.

#### Discussion:

- a. Mr. Peter Constable: The UTC experts had reviewed the Mr. Anshuman Pandey's proposal and thought it was mature enough. As Mr. Michael Everson says there is no issue with the numbers per say. We may be able to accept these. As to the subtending mark, you state that these cannot be used with Coptic font.
- b. Mr. Michael Everson: The subtending mark is used only with Arabic script. Not with Coptic manuscript. It would be from Arabic tradition that uses these same numbers. The fractions are used in Arabic context.
- c. Mr. Peter Constable: How many columns may be needed for fractions? Can we take actions on the numbers now?
- d. Mr. Michael Everson: That is one of the feedback we need from Mr. Anshuman Pandey. We don't know how many will be there. We could allocate two columns for now, but move it elsewhere.
- e. Mr. Mike Ksar: You are proposing the subtending mark to Arabic block.
- f. Dr. Deborah Anderson: We are not sure we should move the mark from the proposal.
- g. Mr. Martin Hosken: How does this subtending mark work?
- h. Mr. Peter Constable: Similar to the Arabic mark. It appears at the beginning of the string and the mark extends to the end of the numeric string.
- i. Mr. Michael Everson: We are opposed to having the subtending mark with this block; but it is for Arabic block – we propose: 0605 Arabic Coptic Number Mark. (Supertending mark as a header).

#### Relevant resolution:

##### M57.16 (Coptic numbers):

Unanimous

With reference to document N[3843](#), WG2 accepts to:

- Encode 0605 ARABIC COPTIC NUMBER MARK (name and code position changed) in the Arabic block
- Create a new block in the range 102E0 to 102FF named Coptic Numbers and populate it with **28** characters, one of which is a combining mark, in code positions 102E0 to 102FB, with the final names and glyphs as shown on pages 2 and 7 of document N[3946](#).

### 10.4 Vedic

#### 10.4.1 Vedic Tone Candra Above

Input document:

[3844](#) Request for encoding 1CF4 VEDIC TONE CANDRA ABOVE; Shriramana Sharma via SEI; 2009-10-11

Dr. Deborah Anderson: Document N[3844](#) is a request for one character for Vedic Extension block. It is 1CF4 VEDIC TONE CANDRA ABOVE, contrasting with CANDRA below. It is used across scripts. It has been reviewed by Dr. Peter Scharf, the Vedic expert. The U.S. national body is in agreement to encode this.

Mr. Peter Constable: The UTC has reviewed this and is in agreement. Accepted. See *item 'b' in relevant resolution M57.02 on page 29.*

#### **10.4.2 Vedic Sign Rotated Ardavisarga**

Input document:

[3861](#) Request for encoding 1CF3 VEDIC SIGN ROTATED ARDHAVISARGA; Shriramana Sharma; 2010-07-09

Dr. Deborah Anderson: Document N[3861](#) proposes adding 1 combining character 1CF3 VEDIC SIGN ROTATED ARDHAVISARGA.

Background is in document. The U.S. national body has reviewed it and we request its encoding, in the CD 3<sup>rd</sup> edition.

Mr. Peter Constable: The UTC has reviewed and agrees with its encoding.

Accepted. See *item 'b' in relevant resolution M57.02 on page 29.*

#### **10.4.3 Two Vedic Extension characters**

Input document:

[3881](#) Request to add two characters to the Vedic Extensions block; S. Sharma & Debbie Anderson; 2010-07-26

Dr. Deborah Anderson: Two new characters are proposed in document N[3881](#). It removes the earlier usage of Kannada Vedic characters for the identified uses. The U.S. national body requests these be included in the CD for 3<sup>rd</sup> edition.

Mr. Peter Constable: The UTC has reviewed and agrees with its encoding.

Accepted. See *item 'b' in relevant resolution M57.02 on page 29.*

#### **10.5 Two missing Extended IPA modifier letters**

Input document:

[3846](#) Proposal to encode two missing modifier letters for Extended IPA; Karl Pentzlin; 2010-04-30

Mr. Michael Everson: Mr. Karl Pentzlin is the proposer. Two addition characters needed for Extended IPA are proposed:

Accepted. See *item 'c' in relevant resolution M57.02 on page 29.*

#### **10.6 Two Letterlike Symbols for Canadian legal use**

Input document:

[3860](#) Proposal to encode two Letterlike Symbols for Canadian legal use in the UCS; Karl Pentzlin; 2010-06-11

Mr. Michael Everson: Mr. Karl Pentzlin has proposed two symbols 1F16A RAISED MC SIGN and 1F6B RAISED MD SIGN with annotations. These are similar to the trademark sign and are used in Canadian French settings

##### **Discussion:**

- a. Dr. Deborah Anderson: The U.S. national body has reviewed this proposal and agrees with encoding them.
- b. Mr. Alain LaBonté: I don't think this is required by law in Canada. It is used everyday. I have no objection to the additions. Correct the annotations using French casing convention; remove Canadian legal use.
- c. Dr. Umamaheswaran: We don't normally mention legal use for similar characters for trademark etc. It is safer to remove the annotation. If it is really required legally Canada we can request extending the annotation as part of the ballot comment.
- d. Mr. Peter Constable: The intent was to show where it is used.
- e. Mr. Mr. Alain LaBonté: I found the Federal Government of Canada website mentioning these symbols: Marque déposée; Marque de commerce. They are recommended but not mandated.

Accepted. See *item 'd' in relevant resolution M57.02 on page 29.*

#### **10.7 Two Tifinagh characters for vowels in Tuareg language variants**

Input document:

[3870](#) Proposal to add two Tifinagh characters for vowels in Tuareg language variants; Paul Anderson; 2010-07-30

Dr. Deborah Anderson: Document N[3870](#) contains a proposal for two characters for Tuareg people in Niger using Tamajaq language. It has been reviewed by Ms. Lorna Priest and she supports it. The Government of Morocco was consulted regarding the collation. The U.S. national body has reviewed it

and proposes it to include in CD 3<sup>rd</sup> edition.

Mr. Peter Constable: The UTC has reviewed this proposal and supports their encoding in the CD. Accepted. See *item 'g' in relevant resolution M57.02 on page 29.*

## 10.8 Sindhi script

Input document:

[3871](#) Proposal to Encode the Sindhi Script in ISO/IEC 10646; Anshuman Pandey; 2010-09-10

Dr. Deborah Anderson: Document N[3871](#) is a proposal from Mr. Anshuman Pandey. It is a revised version of previous preliminary proposal. This is Landa-based script, and is also known as Hindu-Sindhi or Hindi-Sindhi. It is based on a Brahmi model and not Arabic. It was standardized in 1868 by the then Government of Bombay. The historic Sindhi script has since died out. It was aimed for use by mercantile community. 69 characters are proposed.

Mr. Michael Everson: From the roadmap point of view there is an area where better use of space could be made. I propose this script be moved to 112B0 to 112FF, instead of 11600 to 1164F.

**Relevant resolution:**

**M57.17 (Sindhi script):**

**Unanimous**

With reference to document N[3871](#), WG2 accepts to create a new block named Sindhi in the range 112B0 to 112FF, and populate it with **69** characters, some of which are combining, in code positions 112B0 to 112EA and 112F0 to 112F9, with their names and glyphs as shown on page 12 in document N[3946](#).

## 10.9 Linear A script

Input documents:

[3774](#) Proposal for encoding the Linear A script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project) - Michael Everson and John Younger; 2010-07-31

[3872](#) Proposal to encode an additional Linear A character in the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project) - Everson; 2010-07-30

Mr. Michael Everson: Linear A has not been deciphered but its character repertoire has been stable for sometime. People are exchanging data with this repertoire. With the Egyptian hieroglyphs we could take their catalog and use their numbers. Since our earlier proposal a new Linear A character was discovered and is proposed in N[3872](#). We took a fresh look at the repertoire. Some of them were strings of two characters. They are considered to be duplicates. A small circle was in the manuscript which shows the characters are next to each other. We have to revise the repertoire. We will revise the proposal and update the roadmap accordingly.

**Discussion:**

- Dr. Deborah Anderson: This work is being done closely with the experts in the U.S. and Europe, and they are in agreement with the direction.
- Mr. Mike Ksar: We will take it up in Helsinki when the revised proposal is available. Will this be for Amendment 1?
- Mr. Michael Everson: No, it will be for a future Amendment.

## 10.10 Additional characters for Greek, Latin, and Coptic

Input document:

[3912](#) Revised proposal to add additional characters for Greek, Latin, and Coptic to the UCS; Michael Everson, Stephen Emmel, Siegfried G. Richter, Susana Pedro, António Emiliano; 2010-09-21

Mr. Michael Everson: Six additional characters are proposed. They are two letters and four punctuations. BOHAIRIC KHEI in small and capital forms. The manuscripts distinguish between two different forms of KHEI. Use of the punctuations is described in the document. The Raised Dot is between the top dot and full stop. Middle comma is to be used with middle dot; it is used in Latin manuscripts. The Raised Comma and raised dot are used with Coptic. Our request is to encode the six characters.

**Discussion:**

- Mr. Peter Constable: An earlier version of this proposal was discussed by the UTC. We agree with encoding the two Coptic letters. The punctuations need more discussion. Evidence for small raised dagger does not demonstrate a contrast with existing dagger; we think it is a glyph variant. As to the middle comma, we feel there is not enough evidence. There is an existing grapheme break, and the middle comma could be a glyph variant of that. The UTC can accept the letters. We would not recommend middle comma and dagger at this time; they need more evidence.

- b. Mr. Michael Everson: We certainly stipulate that the dagger is not a glyph variant. As to the Middle comma, figure 14 shows the positura example. Are you requesting more examples?
- c. Mr. Peter Constable: Yes, we would welcome more attestations.
- d. Mr. Michael Everson: If that is the case, we would propose new locations - 2E33 RAISED DOT, 2E34 RAISED COMMA to fill existing holes. Sigfried (one of the contributors) is doing a database work, the sooner we encode the characters, the better; so we are requesting that these be included in the 3<sup>rd</sup> edition FCD. We will get additional evidence for the dagger and middle Comma.

Accepted. See *items 'e' and 'f' in relevant resolution M57.02 on page 29*. The relevant fonts are available to the editors.

### **10.11 Arabic script characters for African and Asian languages**

Input document:

[3882](#) Proposal to add Arabic script characters for African and Asian languages; Lorna A. Priest, Martin Hosken (SIL International); 2010-08-12

Mr. Martin Hosken: Document N[3882](#) contains a collection of proposals for Arabic script characters required by languages used various countries in Africa and Asia. Many African countries are standardizing their alphabets. This is a proposal by Ms. Lorna Priest. It was reviewed by the U.S. national body and the UTC. To prevent font designers from doing their own things, the sooner we stabilize the code points for these the better it is. We suggest that these go into the 3<sup>rd</sup> edition.

#### **Discussion:**

- a. Mr. Michel Suignard: Will there be more?
- b. Mr. Martin Hosken: The unambiguous ones are included here. Instead of five different proposals we bundled these into a single contribution. Any future ones will not be requested to be included in the FCD; they will be for an Amendment.
- c. Mr. Peter Constable: The UTC has reviewed these. We were not anticipating including these in the 3<sup>rd</sup> edition. There are more characters to review. If it is in the Amendment you will be looking at about a year's delay. The UTC has reviewed these and accepts that these are ready for encoding.
- d. Dr. Deborah Anderson: Things have changed in the contribution just before this meeting after we had the previous reviews. I would be more comfortable having it in the Amendment.
- e. Mr. Michel Suignard: The new Amendment will be going through the new process. It will be almost a year before the content gets frozen.
- f. Dr. Umamaheswaran: These can go into the 3<sup>rd</sup> edition, and we still have one technical ballot to go around. If there is some problem with these we can move it into the Amendment.

#### **Relevant resolution:**

**M57.10 (Arabic additions):**

**Unanimous**

WG2 accepts to add 35 characters in code positions 08A0, 08A2 to 08AC, 08E4 to 08EF, and 08F4 to 08FE, in the Arabic Extended-A block, with their names, code positions and glyphs as shown on page 2 in document N[3882](#), in support of several African and Asian languages.

### **10.12 One additional CJK Unified Ideograph for the URO**

Input document:

[3885](#) Proposal to append one CJK Unified Ideograph to the URO; Joint US/UTC – Ken Lunde; 2010-08-24

Dr. Deborah Anderson: This ideograph was proposed and discussed at two IRG meetings. It was part of the Adobe set and in a unified ideograph collection. Then, the IRG decided to disunify it, but by then Extensions D and E were both frozen. They decided to disunify it from 6DBC.

#### **Discussion:**

- a. Mr. Masahiro Sekiguchi: The history of this character was as described. It was proposed to IRG as part of normal coding process. If someone raised a questionable point on a particular character, that would be delayed in IRG consideration. IRG had postponed the specific character for future discussion. This character is one of many such characters. Adobe for some reason had an urgent requirement to have this particular character in the standard. They could not wait for the normal IRG process to deal with it. They decided to write this proposal to include this character outside of the IRG process. The IRG discussed two characters from Adobe at the last meeting in June 2010. The IRG editors agreed that this character is suitable for adding as a Unified Ideograph. But Adobe decided to withdraw it from the IRG process. Japan is not comfortable with such bypassing of IRG, even though it is suitable for inclusion in the unified area. We do understand the reason for the

- urgency and we don't have any opposition to it.
- b. Prof. Kyongsok Kim: Mr. Masahiro Sekiguchi presented the situation accurately. I wrote a proposal on the two characters to IRG. One of these was considered as a variant. Whereas the proposed Adobe character is concerned, I am not sure if it was accepted by the IRG for the next extension or not.
  - c. Mr. Chen Zhuang: I support the concerns expressed by Japan and Korea.
  - d. Mr. Michel Suignard: To some extent the IRG process is sort of broken. It is like stating that a character is in the FCD, but we don't like it and it has to go outside the process completely. An urgently needed character cannot be put in a bucket for ever with no progression. We have added some 9Fxx range characters using the direct processing by WG2. While I agree we should not bypass IRG, and not abuse the direct path through WG2, we have precedents. For example, the last batch of HKSCS characters were added that way. We need to be able to add such urgent requests outside of the IRG process.
  - e. Mr. Mike Ksar: I share the concerns expressed by the three IRG member national bodies. I am surprised that this was not documented in the IRG reports or resolutions. If this was discussed and agreed upon in June IRG meeting a resolution should have been made so that they agree that it has to be added to the standard urgently.
  - f. Mr. Masahiro Sekiguchi: My understanding was Adobe wanted IRG judgment on whether the character is suitable for encoding or not. I do have some concerns on the IRG process - although some people feel that IRG is not working well, no one has come up with a better way. Recently IRG is overloaded with work assigned to them by WG2 with multiple column charts that all work on consideration for new characters etc. is all way behind. At this moment I don't have any idea as to how IRG would be able to improve the process. IRG's normal process will not be treating Adobe any differently from other IRG proposers who have urgent needs as well. Japan is not objecting to have this character to be included based on WG2 discussion. It is technically suitable for inclusion in the third edition.
  - g. Prof. Kyongsok Kim: As Mr. Masahiro Sekiguchi said, we concluded that this character was distinct. The recommendation in IRG document N1700 was to include in Extension E or Extension F. But Extension E was closed already. So it could go only in Extension F. I propose to get input from the IRG convener. If there is an exception to the process I would like to have an ad hoc of IRG members that there is consensus.
  - h. Mr. Chen Zhuang: I would like to delay this discussion till we have input from the IRG convener.
  - i. Mr. Mike Ksar: I expected the IRG report to include at least a statement summarizing the discussion and recommendation from IRG regarding this character.
  - j. Mr. Peter Constable: I wonder if Japan or others can clarify for me. I am hearing that people are taking exception to the process by taking the matter straight to WG2. You are not objecting to adding this particular proposal. But you do have a concern about the process.
  - k. Mr. Michel Suignard: WG2 always asks IRG to review all the CJK characters technically. We have had exceptions that could not wait for the IRG pipeline of extensions. For urgently needed characters WG2 should have a way of adding them. Some IRG members may be uncomfortable with it. We have to use the process of direct path to WG2 with caution.
  - l. Dr. Umamaheswaran: I find we are duplicating the same discussion in WG2 we had when we discussed the HKSCS urgently needed characters. We have always consulted the IRG for technical soundness.
  - m. Mr. Mike Ksar: If there is no objection to it, we can accept it and let IRG take it out of the future extension. I have updated Dr. Lu Qin on the action taken in WG2 about this single ideograph. She was not aware of the U.S. contribution, and was quite surprised. They will inform IRG to take the character of their future extension collection.

Accepted. See item 'h' in relevant resolution M57.02 on page 29.

### 10.13 Sinhala Numerals

Input documents:

- [3876](#) Proposal to add archaic numbers for Sinhala to the BMP and SMP of the UCS; Ireland; 2010-08-08
- [3888](#) Proposal to include Sinhala Numerals to the BMP and SMP of the UCS; Sri Lanka Standards Institution (SLSI); 2010-09-01
- [3888-A](#) Cover Letter from SLSI
- [3888-B](#) Unicode Character Properties of Sinhala Lith Illakkam

Mr. Michael Everson: The Sinhala numerals were originally proposed in 1997, and then re-proposed later.  
Mr. Harsha Wijayawardhana: The proposal is the result of about two years' research. Early inputs were received from Mr. Michael Everson. We did some research and found there were five different sets of numerals. Some of these were letters – also used in India. These are not proposed. Two sets – a set that is proposed by Mr. Michael Everson and the other one called Illakkam. It is derived from Brahmi script which did not have a zero. There was signed document in 1815. These are mostly seen in Royal documents. Used from 4<sup>th</sup> century onwards, in paging of Ola leaves and in astronomical calculations. We also found some old horoscope using the set of numerals. There is a book I authored that is available. A third version is Sinhala Lith Illakkam. It had a zero numeral that conflicted with one of the letters. So a modified form of Halant was used to depict the zero in all the three versions. Similar to having a horizontal line across 7 or diagonal on zero etc., we do have conventions used in these three sets. In India they had used two sets - one with zero and one without zero. Tamil and Malayalam are examples. Zero came into use somewhere around 1800. The Tamil numerals also derived from Brahmi, though they look like Tamil letters. Our request is Lith Illakkam be included in the BMP. The astrologers know these and they use it even today. They are not called Historical digits. Mr. Michael Everson has proposed some annotations and we accept these. The request is to include these in Amendment 1.

**Discussion:**

Dr. Deborah Anderson: The U.S. has reviewed this proposal and we support its encoding.

Dr. Umamaheswaran: Once we encode these, the astrologers in Sri Lanka can start using these numbers in computers.

Mr. Harsha Wijayawardhana: I thank Michael Everson and Deborah Anderson in particular for helping us with this proposal.

**Relevant resolution:**

**M57.14 (Sinhala numerals):**

**Unanimous**

With reference to document N3888, WG2 accepts to:

- Encode **10** Sinhala numerals in code positions 0DE6 to 0DEF in the Sinhala block
- Create a new block in the range 111E0 to 111FF named Sinhala Archaic Numbers and populate it with **20** Sinhala archaic numerals in code positions 111E1 to 111F4,

with the names and glyphs as shown on pages 4, 5 and 20 of document N3891.

**10.14 Minority Lao characters for Khmu language**

**Input document:**

[3893](#) Proposal to add minority characters to Lao script; Martin Hosken; 2010-09-08

Mr. Martin Hosken: The proposal is to add two characters required by minority language Khmu. We would prefer to include in the 3<sup>rd</sup> edition; but it would be alright if it is in the Amendment, Mr. Michael Everson will send in the font.

**Discussion:**

- a. Mr. Peter Constable: This proposal has not been reviewed by the UTC. The attestation is all there. The most important piece of information was about the collation. If we can get the revised one it will be better.
- b. Dr. Umamaheswaran: We can put these in the 3<sup>rd</sup> edition.
- c. Dr. Deborah Anderson: Can we expect a revised version? Personally I am uncomfortable with anything coming in new to go in an FCD stage.
- d. Mr. Martin Hosken: Yes.
- e. Mr. Peter Constable: For the header in nameslist, do you want a subheading, such as: 'For Minority language Khmu'?

Accepted. See item 'i' in relevant resolution M57.02 on page 29.

**10.15 Duployan Shorthands, Chinook script, and Shorthand Format Controls**

**Input documents:**

[3895](#) Proposal to include Duployan Shorthands and Chinook script and Shorthand Format Controls in UCS - revised; Van Anderson; 2010-09-24

[3908](#) On ordering and the proposed Duployan script for shorthands and Chinook; Irish NB; 2010-09-21

[3922](#) Response to Irish NB comments 3908 - Duployan proposal N3895r; Van Anderson; 2010-09-24

[3931](#) Further discussion on ordering and the proposed Duployan N3895; Irish NB – Michael Everson; 2010-10-03

[3940](#) Quick response to Irish NB comments N3931; Van Anderson; 2010-10-05

Dr. Deborah Anderson: It is a short hand for several languages and is also as primary script for several native languages in British Columbia, Canada. This was once used as the short hand for French. There is no sort order provided.

Mr. Peter Constable: There is no sort order provided because it is really based on the shapes. The script is complex and for rendering a higher level protocol will be required similar to Musical Symbols or Math formulas. The set of characters is just the elements that could be used for the shorthands for various languages. It is a unification of several sets and each community would be using the subset that is appropriate for the community. There have been multiple rounds of review in the UTC, and we feel that it is mature to go into the next Amendment.

**Discussion:**

- a. Mr. Michael Everson: There have been many recent documents on it. Ireland has some reservations and concerns on the order of the script in the charts. There is continuing dispute on the order in which to present them. Since this is the first time WG2 has seen it, I would prefer to have national body feedback. I don't think it is ready for encoding now. I am not comfortable with the responses received.
- b. Mr. Michel Suignard: The only controversy seems to be on the order of the characters in the chart; that alone should not be a reason for delaying going ahead.
- c. Mr. Peter Constable: A total of 148 characters is proposed -- 143 characters in a new Duployan block, 1 supplemental punctuation, and 4 in the Shorthand block.
- d. Mr. Michael Everson: This is a complex script with complex behaviour. The user community for this is very small. There is a lack of consensus.
- e. Mr. Michel Suignard: I repeat; the lack of consensus is only an order. There are two rounds of balloting on it. That is what I see in the response from you.
- f. Mr. Peter Constable: As to the comments from Ireland - they are willing to handle the remaining issues in ballot comment. The proposer has already accommodated many of the comments from Ireland. There are not any new issues that have not been accommodated.
- g. Mr. Michael Everson: In response to Ireland's first response document, our concerns were not addressed. Mr. Peter Constable: The comments in your second document did not add anything new from the first. The position of the U.S. is that all the concerns of Ireland have been addressed. Ordering was one of the issues. The organization of the characters in a different way or not is another. Both the U.S. national body and the author feel that what is in the current proposal is appropriate for this set of characters.
- h. Mr. Martin Hosken: I find that in this case the concern may be an issue. I suggest a more conciliatory approach.
- i. Mr. Peter Constable: In this case Ireland is wrong. It is only an issue of order of characters that is open. The U.S. has looked at each case like what we did with Myanmar characters that came to WG2 the first time. Ireland had stated earlier that they can deal with their concerns in ballot comments.
- j. Mr. Mike Ksar: This is the first time we are seeing this in WG2. Is there any urgency for putting these characters in a ballot? We may be able to address the order of characters.
- k. Mr. Peter Constable: The only issue seems to be order of characters as far as Ireland is concerned. We feel that the proposal is mature enough to go to ballot. We feel that is mature enough.
- l. Dr. Umamaheswaran: Would it be a major problem for the U.S. and the UTC if we delay the decision to the next meeting?
- m. Mr. Peter Constable: The concern is one of process. One expert had the opportunity to review and the expert can hold decision of the WG2.
- n. Mr. Masahiro Sekiguchi: Based on the discussion I have heard so far, I see no problem in progressing it. However, I would not have an objection to hold it for further review and feedback.
- o. Prof. Kyongsok Kim: Like Japan I am not an expert in this topic. From the process point of view, if a proposal comes for the first time to WG2, and if there is a request we allow for more time. As the convener asked, if there is no urgency, we should take more time.
- p. Mr. Michael Everson: There is only one issue and it is technically important issue from the user community. I would frankly like to have the discussion with the UTC. I don't support moving this into another ballot.

- q. Mr. Michel Suignard: I would propose that even if we go for a six month delay till Helsinki meeting, and if the issue is still code chart ordering, I think we would accept to go into the amendment at that time.
- r. Mr. Peter Constable: The U.S. has stated its position. If WG2 is willing to do that at Helsinki, we will go along with that.
- s. Mr. Martin Hosken: I like Mr. Michel Suignard's process. If there is no resolution by Helsinki we should progress.
- t. Dr. Umamaheswaran: I think we should wait till Helsinki.

**Action item:** National bodies and liaison organizations are invited to review and provide feedback. WG2 may decide to include this script in Amendment 1 at the Helsinki meeting.

### 10.16 Letter C With Bar

Input document:

[3896](#) Proposal to encode C WITH BAR; Lorna A. Priest (SIL International), Laurentiu Iancu (Microsoft Corporation) and Michael Everson (Evertyp); 2010-09-14

Mr. Michael Everson: This interesting character has turned up in many unrelated places. C with hard sound of KH. It is proposed for h sound. Other evidences of usage of these are given in the proposal.

**Discussion:**

- a. Mr. Peter Constable: The UTC has not reviewed this contribution. It does not seem to be controversial.
- b. Dr. Umamaheswaran: Propose we include it in the 3<sup>rd</sup> edition; one round of technical discussion is available.
- c. Mr. Michel Suignard: I need the font.
- d. Mr. Michael Everson: I will send you the new font containing these. New code position is proposed - A792 and A793 instead of A79C and A79D.

Accepted. See *item 'j'* in relevant resolution M57.02 on page 29.

### 10.17 Special scripts and Characters for Uighur, Kazakh and Kirgiz

Input documents:

[3819](#) Preliminary Proposal for Encoding Special Scripts and Characters in UCS for Uighur, Kazakh and Kirgiz; China NB; 2010-04-15

[3889](#) Response to 3819 "Preliminary Proposal for Encoding Special Scripts and Characters in UCS for Uighur, Kazakh and Kirgiz" (submission by Chinese NB, =L2/10-129); US National Body & Unicode Consortium: Roozbeh Pournader and Deborah Anderson (SEI, UC Berkeley) China NB; 2010-08-11

[3919](#) Proposal to Encode Special Scripts and Characters in UCS for Uighur language; China - NB; 2010-09-15

[3938](#) Ad hoc report on Uighur, Kazakh and Kirgiz (N3888, N3919); Ad hoc chair – Debbie Anderson; 2010-10-05

Dr. Deborah Anderson: We had an ad hoc meeting. Mr. Martin Hosken will work with Prof. Wushour Silamu on a keyboard layout which will address the issues requested in [N3889](#) and [N3919](#). The characters already requested exist and they wanted a mechanism to enter these characters.

**Relevant resolution:**

**M57.26 (Uighur, Kazakh and Kirgiz):**

**Unanimous**

With reference to requests from China in documents [N3889](#) and [N3919](#), WG2 endorses the ad hoc report in document [N3938](#), and invites China to revise their proposal taking into considerations the feedback.

### 10.18 Chinese Chess Symbols

Input document:

[3910](#) Proposal for Encoding Chinese Chess Symbols; China NB; 2010-09-16

Mr. China Zhuang introduced Ms. Huang Shanshan, a Chinese expert on the topic.

Ms. Huang Shanshan: The proposal is to encode Chinese chess symbols – composed of board and pieces. There are 34 symbols to be encoded. 22 pieces and 12 board symbols.

**Discussion:**

- a. Mr. Chen Zhuang: We have already received some verbal feedback.
- b. Prof. Kyongsok Kim: In Korea we use the same Chess but use different symbols. We will review and provide feedback.
- c. Mr. Mike Ksar: Is it a different game?
- d. Mr. Masahiro Sekiguchi: It is the same game.

- e. Mr. Peter Constable: The enclosed ideographs – we already have a few. Should we name these as Chess pieces or follow the convention for enclosed CJK ideographs. The other issue is about line drawing characters. It is not clear there is actual use of line drawing plain text characters. The evidence shows game board layouts as graphics. The current UCS line drawing characters were for compatibility with legacy terminals etc. There is no evidence that there will be implementations of these in plain text. The UTC will provide some written feedback to China and we look forward to a revised document in Helsinki.
- f. Mr. Masahiro Sekiguchi: Your first comment is about some already encoded enclosed ideographs; for example use of circled ideographs. Most of these are from Japanese standards. Your question is whether the existing ones can be used for the chess symbols?
- g. Mr. Peter Constable: I just want to raise that possibility, and consideration for different options.
- h. Mr. Michel Suignard: That is what we did for the ARIB set. We gave them generic names and annotated for typical usage. It allows use of these for other purposes.
- i. Mr. Masahiro Sekiguchi: I have two comments. Assuming we have Chinese chess specific symbols, I think it is questionable we need a separate set of simplified and traditional ones for the piece symbols. As a Chinese game piece there is clear one to one correspondence between the simplified and traditional ones. Having one symbol for the King would be sufficient and the distinction between simplified and traditional etc. should be handled by other means such as font variations etc. If Korea wants to have a different symbol, we could use the same mechanism. The second comment is similar to what Peter mentioned. I don't think line drawing characters for drawing game boards should be plain text characters; they should be graphics. We do have Japanese equivalent of Chess, but with different rules, different board and different symbols.

**Relevant resolution:**

**M57.28 (Chinese Chess symbols):**

**Unanimous**

With reference to document N[3910](#) on Chinese Chess Symbols, WG2 invites China to submit a revised proposal addressing the feedback received during meeting M57 and any further national body feedback received prior to WG2 meeting M58.

**10.19 Palmyrene script**

Input document:

[3867](#) Proposal for encoding the Palmyrene script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project); Michael Everson; 2010-07-15

Mr. Michael Everson: Palmyrene was used during the time from about 44 BC to 300 CE. It has profoundly recognizable ornamental style. It is a straight forward R to L script. Interesting NUN character - has to be treated as Hebrew. It has several ligatures, but it is up to the font design. Ligatures are discretionary. Most of these are touching at the bottom. There are no shaping considerations. The position of the same shape for 10 determines if it is a 10 or 100. There are two punctuation characters pointing left and right, found in the neighborhood of dates, and are proposed as symbols.

**Discussion:**

- a. Dr. Deborah Anderson: The U.S. national body has reviewed and found it is ready for encoding.
- b. Mr. Peter Constable: Looking at the character properties – for the digits, they are right to left. The previous page shows they are written, for example for 11, how should be in the backing store?
- c. Mr. Michael Everson: They are treated as right to left, like Phoenix or NKO etc., but unlike the numbers in Arabic.
- d. Mr. Peter Constable: The logical order is visual Right to Left.
- e. Dr. Umamaheswaran: It is uniformly right to left within the script.
- f. Mr. Mike Ksar: This is proposed for SMP.

**Relevant resolution:**

**M57.18 (Palmyrene script):**

**Unanimous**

WG2 accepts to create a new block named Palmyrene in the range 10860 to 1087F, and populate it with 32 characters in code positions 10860 to 1087F, with their names and glyphs as shown on page 4 in document N[3867](#).

**10.20 Old North Arabian script**

Input documents:

[3773](#) Preliminary proposal to encode the Old North Arabian script in the SMP of the UCS; Michael Everson and Michael C. A. Macdonald; 2010-03-30

[3937](#) Proposal to encode the Old North Arabian script in the SMP of the UCS; UC Berkeley Script Encoding Initiative (Universal Scripts Project); Authors: Michael Everson and M. C. A. Macdonald; 2010-10-04

Mr. Michael Everson: Similar to the other North Arabian script this was used in western two-thirds of Arabia from Syria to the borders of Yemen. There is lot of historical text in the contribution. It is an alphabetical script containing only consonants. It is uniformly Right to Left including numbers. Some dialects can be written left to right or right to left or boustrophedon, or in any direction. We are proposing only the Right to Left. The order for sorting is well-attested. There are the North and the South West Semitic. A comparison of North and South Arabian and Ethiopic is included. The relative order is the same as the North Arabian. Both orders are given. Multiple glyph forms are used; one of these, the Dadanitic is used in the proposal for the charts. Inscriptions using these are included.

#### **Discussion:**

- a. Mr. Mike Ksar: this script does not have any ligation? No.
- b. Dr. Deborah Anderson: We had considerable expert opinion on it, from the SEI perspective. The U.S. national body has reviewed this proposal and accepts its encoding.
- c. Mr. Peter Constable: Given consideration in glyph variations, there is potential for confusion between users between phonemes versus shapes etc. but looking at the charts only.
- d. Mr. Michael Everson: The suggestion was to use dialect specific fonts.
- e. Mr. Peter Constable: In this case we don't want to look at the shapes in the charts, but to look for Phonemes. We have to make it clear in the block description. You have indicated multiple possible writing directions. How do the glyphs behave in different line directions is needed? Some explanation would be useful.
- f. Mr. Michael Everson: The bulk of the inscriptions are in the more orderly Dadanitic style. I don't have answers to all of your questions – such as do you need alternate glyphs for different directions. Our request is to include in Amendment 1.

#### **Relevant resolution:**

##### **M57.19 (Old North Arabian script):**

**Unanimous**

WG2 accepts to create a new block named Old North Arabian in the range 10A80 to 10A9F, and populate it with **32** characters in code positions 10A80 to 10A9F, with their names and glyphs as shown on pages 6 and 7 in document [N3937](#).

## **10.21 Teuthonista phonetic characters**

#### **Input document:**

[3907](#)

**Preliminary proposal to encode Teuthonista phonetic characters in the UCS – replaces N3555; Lehrstuhl für Deutsche Sprachwissenschaft der Universität Passau, & Institut für Österreichische Dialekt- und Namenlexika der Österreichischen Akademie der Wissenschaften -Authors: Michael Everson, Eveline Wandl-Vogt, Alois Dicklberger; 2010-09-23**

Mr. Michael Everson: The current proposal replaces the proposal in document [N3555](#). The information is based on work being done in University of Passau. A subset from the previous set of Latin letters for specialized dialectic alphabets in Germany and Australia is proposed. Like the Uralic phonetic alphabet we have seen in the past, the phonetic characters were devised in 19<sup>th</sup> century. There is a mass of data in this orthography, even though the dialects are not used anymore. Many supporters for the alphabet, there is a long list on page 2 in the proposal. It includes a number of diacritical marks, disjoint with dots etc. The chart on page 3 shows these. Combining letters above are shown on page 5. Two punctuations, the double parentheses are shown on page 7. They could not be unified with the guillemets. Page 10 has a number of Latin letters with fused diacritics which themselves can be further marked with accents. Several x-s with decorations etc. exist. Modifier letters x, a, e, i, u etc. are also proposed. Tables on pp 24 -26 show two columns. The second column shows the proposed shapes in code charts. The second col. Italicized form is what the users see in their documents. First column shows where evidence of use can be found as examples. There are 96 characters are in the set. But based on the examples it can be seen some of these may be dropped. They have been publishing massive maps of dialects etc. and they realized that they did not have UCS characters for many of these. Most of their data is in UCS.

#### **Discussion:**

- a. Mr. Mike Ksar: Looks like all these are in the BMP.
- b. Dr. Deborah Anderson: Some are shown in blue and others are not in the onscreen view.
- c. Mr. Michael Everson: it is just to help me to navigate – done in groups of 8. It will not show up on print outs. I seek feedback from national bodies. Some members of the UTC would prefer the IPA, but that cannot be helped. Thank you very much.

**Action item:** National bodies and liaison organizations are invited to review and provide feedback.

## 10.22 *Six additional Myanmar characters for Shan Pali*

Input document:

[3906](#) Proposal for encoding seven additional Myanmar characters for Shan Pali in the UCS; Michael Everson; 2010-09-21

Mr. Michael Everson: Request came into me from people we worked with in Shan state in Burma. They have been translating Buddhist texts Tipitaka into Shan. They have settled on the repertoire for writing Pali into Myanmar. Seven characters are proposed to meet their needs. Five Pali consonants, one combining mark and one punctuation character are proposed.

### Discussion:

- a. Mr. Peter Constable: This has not been reviewed by the UTC. Information about collation is missing. The combining mark's interaction with others in the Myanmar script needs more information in the proposal.
- b. Mr. Michael Everson: In Shan, the combining mark is only with one letter. They have used it for unit of measure symbol. I have to wait for more information from Mr. Martin Hosken.
- c. Dr. Deborah Anderson: Has the Myanmar government looked at it?
- d. Mr. Michael Everson: The federal government has not looked at it. The Shan state body, I presume, is dealing with it.
- e. Mr. Martin Hosken: The information is certainly needed for the UTC. It should not prevent us from going ahead with the encoding part. We will be happy to provide that information required by the UTC.
- f. Mr. Peter Constable: If the document can be revised with the collation information this week, it will be great. If you have some information about the combining mark before the next UTC meeting it will facilitate the review by the UTC. If WG2 wants to go ahead with the encoding part, we can go along with it. Our preference is to have more complete information.
- g. Mr. Michael Everson: The request is for inclusion in the Amendment. The chart on page 1 does show the order. We can provide that in the proper format. We can provide the other information before the next UTC meeting.
- h. Mr. Peter Constable: Given the above we can live with what we have now.
- i. Mr. Mike Ksar: The authors can take an action item to revise the document for assisting the UTC to review the proposal.
- j. Mr. Martin Hosken: UTN 11 – on Myanmar – is an informative document. The relationship of additional Shan characters in terms of other characters in UTN 11 can be provided.
- k. Mr. Peter Constable: Note that UTN 11 is informative and is not maintained by the UTC.
- l. Mr. Michael Everson: A new block is proposed because it will not fit in the current extended Myanmar. The needed fonts are available.

### Relevant resolution:

**M57.20 (Myanmar additions for Shan Pali):**

**Unanimous**

WG2 accepts to create a new block named Myanmar Extended-B in the range A9E0 to A9FF, and populate it with 7 characters in code positions A9E0 to A9E6, with their names and glyphs as shown on pages 6 and 7 in document [N3906](#).

## 10.23 *Change to the glyph of the Drachma Sign*

Input document:

[3866](#) Proposal to change the glyph of the DRACHMA SIGN; Michael Everson; 2010-07-19

Mr. Michael Everson: This is a character no one really cares for. ELOT asked me to encode this character in ISO/IEC 8859-7 and into UCS. I created the glyph, with no input from ELOT. Page 1 has three samples shown. None of these are in use either. There is a glyph for it that appears in some price tags – a DELTA on top of RO.

### Discussion:

- a. Mr. Peter Constable: I suggest we don't do any changes to it. You are going to make all the vendors spend a lot of effort for no real value. No one cares for this character.
- b. Mr. Michel Suignard: We may be able to add an annotation editorially.
- c. Dr. Umamaheswaran: I am not convinced we have enough evidence even to entertain an annotation. The example shown is one price tag from a private web site. I would like to see if there is backing for this from the national body of Greece - ELOT.

- d. Mr. Mike Ksar: I would like to see at least some support from ELOT before we entertain even the annotation.

**Disposition:** Not accepted; till better evidence is available.

### 10.24 *Khitan characters*

Input documents:

- [3918](#) Proposal of Encode the Khitan Characters to UCS plane; Collection of Khitan Characters glyphs (Ministry of Information Industry of the People's Republic of China Project) Author: Sun Bo-jun Jing Yongshi Liyang; 2010-09-16
- [3925](#) Comments on Khitan proposal 3918; Richard Cook and Deborah Anderson, Script Encoding Initiative, UC Berkeley; 2010-09-24
- [3942](#) Ad hoc on Khitan; Ad hoc – Debbie Anderson; 2010-10-07

Dr. Deborah Anderson: An ad hoc group met and discussed the contributions. See the (updated) ad hoc report [N3942](#) for details. The work will continue and we can expect a revised proposal.

**Relevant resolution:**

**M57.27 (Khitan):**

**Unanimous**

With reference to documents [N3918](#) and [N3925](#) on Khitan, WG2 endorses the ad hoc report in document [N3942](#), and invites China to submit a revised proposal addressing the feedback received to date.

### 10.25 *Triple Diacritics*

Input document:

- [3915](#) Proposal regarding Triple Diacritics; Karl Pentzlin; 2010-09-23

**Discussion:**

- a. Dr. Deborah Anderson: This is a preliminary proposal from Mr. Karl Pentzlin.
- b. Mr. Michel Suignard: The subject is controversial. In Arabic we can do subtending etc. But this one is easy to do. It could be a higher level protocol.
- c. Mr. Michael Everson: I advised him not even talk about solution A. Solution B is something we already do – for example in Coptic. Combining left and right half etc. That would be something that could be looked at. The feedback would be like reject solution A, and look at whether existing characters can be used or not etc.
- d. Mr. Peter Constable: The macron is an exception in that the nature of the glyph is that they all line up.
- e. Mr. Tero Aalto: Whichever of the solution is good, we need a solution. Solution B would be the one to pursue.
- f. Dr. Deborah Anderson: The observation is that the diacritic goes over three characters.
- g. Mr. Peter Constable: The extent of spread is over a variable number of characters. That is why Mr. Michel Suignard suggested may need higher level protocol.
- h. Mr. Masahiro Sekiguchi: The introductory paragraphs seem to indicate these are part of some annotation system rather than part of a writing system.
- i. Mr. Michel Suignard: You are right; that is part of the controversy.
- j. Dr. Umamaheswaran: It is not clear this belongs in a plain text environment.

**Action item:** Mr. Michael Everson to communicate to Mr. Karl Pentzlin that Solution B should be pursued further.

### 10.26 *Latin letters for Janalif*

Input document:

- [3916](#) Revised Proposal to encode Latin letters for Janalif in the UCS (successor of N3581"); Ilya Yevlampiey & Karl Pentzlin; 2010-09-24

Dr. Deborah Anderson: Document [N3916](#) is a revised proposal for Latin Capital and Small Letter Yeru at A792 and A793. We had accepted another two Janalif characters in a previous proposal.

**Discussion:**

- a. Mr. Michel Suignard: The authors are providing more argument not to unify these.
- b. Mr. Peter Constable: They are claiming that these cannot be unified with 0184 and 0185. Janalif is of historic interest only. The Cyrillic alphabet got used in an otherwise Latin orthography. The request is to duplicate the Cyrillic letters into a no longer alive script using Latin.
- c. Mr. Mike Ksar: This is not in use from 1920-1927.

- d. Mr. Michel Suignard: Today's fonts do contain both Latin and Cyrillic with mixed styles. Spoofing detection will remain a problem, but no one is going to create domain names etc. with Janalif. It would be of less concern here. It is not worth adding duplicates that look the same in two different scripts.
- e. Dr. Umamaheswaran: The case has not been made for why the Cyrillic letter cannot be used with the Latin letters for Janalif.
- f. Mr. Michael Everson: He makes the point about sorting problems. But we have dealt with these with other cases. The letters like Q etc. The W is same shape in Latin and Cyrillic etc. There is precedence for disunification of these sorts. This is not going to go away.
- g. Mr. Mike Ksar: The script is not in use today.
- h. Dr. Umamaheswaran: For Janalif data, one could certainly sort using tailored sorting. For multilingual data the sorting will be context dependant.
- i. Mr. Peter Constable: In the Kurdish case, the consensus to encode new characters etc. was based on distinctiveness nature of the q, and the script was still in use. Also if Janalif community continues to use Latin, the discussion may take a different argument.
- j. Mr. Michel Suignard: I would like to point out that the suggested code points are already taken.
- k. Mr. Michael Everson: I would personally support the disunification. There are tons of data over the decades. There may not be current script users. The work around is to use the Cyrillic character.
- l. Dr. Umamaheswaran: There is a need to make a stronger case why the Cyrillic letter cannot be used for Janalif.

**Action item:** Mr. Michael Everson is to communicate to Mr. Karl Pentzlin on the discussion above.

### **10.27 Additions for Lithuanian dialectology**

**Input document:**

[3914](#) Proposal to add characters used in Lithuanian dialectology to the UCS; Vilnius University: Faculty; 2010-09-24

Mr. Michael Everson: This is the first time we are seeing this contribution. The proposal is to add 3 Latin letters, 3 baseline letters for German dialectology, 12 intonation marks and 2 supplemental punctuations. The contribution is valuable and I can take the feedback. Two of these characters are in another proposal from me.

**Discussion:**

- a. Dr. Deborah Anderson: There is not enough information about usage of some of these characters. The properties need some careful review also. I can provide the feedback to the author.
- b. Mr. Peter Constable: There are some open questions on whether these can be unified with existing characters or not.
- c. Mr. Mike Ksar: We will post if for national body review.

**Action item:** National bodies and liaison organizations are invited to review and provide feedback.

### **10.28 Double Hyphen**

**Input document:**

[3917](#) Revised proposal to encode a Double Hyphen in the UCS; Karl Pentzlin; 2010-09-28

**Discussion:**

- a. Mr. Peter Constable: The UTC has seen the previous version of this proposal from the author. The opinion was that this proposed character could be unified with another character. There was a public review posted by Unicode and based on that feedback we are still reviewing the issue. I would suggest we would post this for further national body feedback.
- b. Mr. Michael Everson: I think the author has made a good case. I have no objection to have more review. Either equal sign or Coptic diagonal sign would have been the character proposed to be unified with; do you know which one? (Look at [Unicode PRI 169](#)).

**Action item:** National bodies and liaison organizations are invited to review and provide feedback.

### **10.29 Request for Symbols from JTC1/SC35**

**Input documents:**

[3897](#) Proposal to incorporate symbols of ISO/IEC 9995-7:2009 and Amendment 1 into the UCS; JTC1 SC 35/WG 1 - Liaison; 2010-08-27

[3927](#) Draft Technical Report Cultural and Linguistic Interoperability – Definitions and relationship between symbols, icons, animated icons, pictograms, characters and glyphs; SC35 - Alain LaBonté, project editor, with contribution from Pr. Em. Hiroaki IKEDA; 2010-08-27

**Output document:**

[3943](#) Urgently needed changes for ISO/IEC 9995-7 symbols; Alain LaBonté, Liaison from SC35/WG1 (Convenor of SC35/WG1); 2010-10-06

[3948](#) Response to JTC1/SC35 WG2 N3897; Alain LaBonté; 2010-10-07

Mr. Alain LaBonté: When SC35 standardized the characters for ISO/IEC 9995-7 Keyboard Symbols, we unified some of them with others because there was not enough space in BMP. For the proposed symbols in document [N3897](#), we need either glyph changes or new encodings. The font used in UCS charts did not follow the strict proportions of ISO 7000, for these symbols. The ideal solution would be to replace the glyphs. For those which do not match the names we use in ISO/IEC 9995 we could add annotations. ISO/IEC 9995-7 has been amended twice and there are additional symbols. Document [N3927](#) contains the details. Additionally, named sequences are needed for two symbols in section 4 for [N3897](#).

**Discussion:**

- a. Mr. Peter Constable: I did not understand the first problem you explained.
- b. Mr. Alain LaBonté: For example see the section 5 in page 8. The glyph shapes used in UCS do not follow the ISO 7000 proportions.
- c. Mr. Peter Constable: One concern with the symbols is that people can use these for a variety of purposes. It is hard to enforce one shape.
- d. Mr. Alain LaBonté: There is another contribution about symbols, glyphs, characters etc. in a TR to reconcile all these. In these cases, we lost track of what symbols corresponded to the function keys etc. in ISO/IEC 9995-7. One could use the correct font and fix the problem. However, the annotations are needed to correctly identify their use in ISO/IEC 9995-7.
- e. Dr. Umamaheswaran: Looks like annotations for these characters would fix the concern in most cases.
- f. Mr. Michael Everson: There was an earlier version of the fonts that used the correct proportions. Somewhere the Fiscella's fonts the arrows were stretched etc. I would be happy to change some of these which were specifically for the keyboard symbols.
- g. Mr. Peter Constable: I would like to know when you wanting to make these changes? In the 3<sup>rd</sup> edition or Amendment 1? A number of changes are requested, and I would like to have a national body review. For the new characters, we need some information about the usage. Attestations of use of these symbols would help.
- h. Mr. Alain LaBonté: SC35 is not asking for these just for printing the standard. The new symbols are in the new versions of the standard and are not yet in use. They have to be searchable also.
- i. Mr. Peter Constable: Appearance of symbols appearing on a keyboard layout is not necessarily evidence of use of these. User manuals containing or exemplifying the appearance of these could be.
- j. Dr. Umamaheswaran: We did go through the rationale etc. for the keyboard symbols in the previous go around of accepting symbols from the same ISO keyboard standard. The new symbols are an extension of that set of symbols.
- k. Mr. Peter Constable: The general concern is that not necessarily every pictographic symbol would be candidates for inclusion in UCS. In this particular case there could be good rationale.
- l. Mr. Michael Everson: I appreciate Mr. Peter Constable's word of caution about graphics from any ISO standard. The intent in 1999 was for treating the symbols in this ISO/IEC 9995 standard as characters. The extension of that is set is what is in front of us. Personally I would be supportive of including these in Amendment 1.
- m. Dr. Deborah Anderson: I think I would prefer to get national body review before we go ahead.
- n. Mr. Alain LaBonté: You may be able to accept or refuse some of these; but we cannot change them in ISO/IEC 9995 etc.
- o. Mr. Peter Constable: The U.S. would prefer to get an opportunity to review the proposal. There are several things being asked for.
- p. Dr. Umamaheswaran: We could include in Amendment 1, since it is an extension of set of symbols that we already have in the standard and we would have two rounds of balloting.
- q. Mr. Alain LaBonté: Personally, I don't see any urgency for the new characters. The annotation to existing characters is more urgent.
- r. Mr. Mike Ksar: Could you await a round of national body feedback.
- s. Mr. Martin Hosken: We could have in Amendment 1 and pull things out later if they are problematic.

- t. Mr. Michel Suignard: It is more difficult to pull these out.
- u. Mr. Michael Everson: For some of the annotations, there will be potential problems.
- v. Mr. Michel Suignard: Being annotations if there is agreement on final set we could even include them in the 3<sup>rd</sup> CD. Some of these could be with sub headings in the nameslist.
- w. Dr. Umamaheswaran: We would like to have an agreed upon terminology for annotations.

(There was an ad hoc on the subject.)

Mr. Michel Suignard: As a result of the ad hoc discussions, five glyphs will be improved; these will be indicated in the CD disposition. Exact text for the annotations is needed – as clear instructions.

An ad hoc report (document N3943) containing instructions suitable for editing was prepared by Mr. Alain LaBonté. A liaison report to be sent from SC2 to SC35 summarizing the WG2 decision was also prepared (document N3948).

**Relevant resolution:**

**M57.03 (Request from SC35):**

**Unanimous**

In response to the liaison request in document N3897 from JTC 1/ SC35, WG2 accepts the recommendations in the ad hoc report in document N3943, for several glyph improvements, annotations to several keyboard symbols, and the following two named UCS sequence identifiers to the standard, using the syntax for USIs in the standard:

<21F3, 20E2> KEYBOARD SYMBOL SCROLLING, and

<2139, 20E2> KEYBOARD SYMBOL HELP

WG2 further accepts the liaison response in document N3948, and instructs its convener to forward it to ISO/IEC JTC1/SC35 via the SC2 secretariat.

**10.30 2 combining Arabic characters for Koranic representation**

Input document:

[3933](#) Proposal to encode 2 combining Arabic characters for Koranic representation; King Fahd Glorious Quran Printing Complex; 2010-04-14

**Discussion:**

Dr. Deborah Anderson: The proposal is for two combining marks ARABIC VOWEL SIGN DOT BELOW LEFT and ARABIC VOWEL SIGN DOT LEFT, on page 6 of the contribution. This is the first time we are seeing this document. I consulted the U.S. national body resident expert and his suggestion was that the contribution needs some more work. Our preference is to go for national body feedback.

**Action item:** National bodies and liaison organizations are invited to review and provide feedback.

**10.31 Mro script**

Input document:

[3589](#) Proposal for encoding the Mro script in the SMP of the UCS; Martin Hosken & Michael Everson; 2009-10-27

Mr. Martin Hosken: The document was brought in earlier for preliminary feedback. It has been reviewed and is brought forward with no change in contents. This is a living language for Mro, primarily in Bangladesh. (It is proposed for inclusion in Amendment 1.)

**Discussion:**

- a. Dr. Umamaheswaran: Did we get any feedback from Bangladesh or Government of India?
- b. Mr. Peter Constable: I reviewed this document and would support it going to an amendment.
- c. Mr. Michel Suignard: I don't have the fonts. Mr. Michael Everson will send it to Mr. Michel Suignard.
- d. Dr. Deborah Anderson: Is there any question on the confusable?
- e. Dr. Umamaheswaran: There is a question on what characters are similar to the existing characters or not. The explicit words 'confusables' is not used.
- f. Mr. Peter Constable: Can we get a revised version of the proposal which could call out for those characters are similar to or confusable with something in the standard. Only the script experts will know how they will be.
- g. Mr. Michael Everson: For every proposal we may have to add a long list of characters.
- h. Mr. Masahiro Sekiguchi: I understand the concerns about spoofing etc. But I don't want the duty of cross checking and be responsible for identifying confusables etc.
- i. Mr. Peter Constable: This is information requested from the proposers. It is not aimed at blocking the proposal etc. It is a request for the benefit of user community who are interested in using the scripts on international domain names etc. to prevent spoofing. It is not asking you to do exhaustive research; it is the submitter's prerogative for not submitting the information.

**Relevant resolution:**

**M57.21 (Mro script):**

**Unanimous**

WG2 accepts to create a new block named Mro in the range 16A40-16A6F, and populate it with 43 characters in code positions 16A40 to 16A5E, 16A60 to 16A69, 16A6E and 16A6F, with their names and glyphs as shown on page 6 in document N3589.

## 11 Working draft for future amendment

### 11.1 Draft new repertoire for ISO/IEC 10646 3rd edition

Input document:

[3890](#) Draft new repertoire for ISO/IEC 10646 3rd edition; Mr. Michel Suignard; 2010-09-08

Output documents:

[3936](#) Final disposition of comments on CD ballot for 3rd Edition; Project Editor – Michel Suignard; 2010-10-08

[3945](#) 3rd edition - delta charts; Project Editor – Michel Suignard; 2010-10-08

This document is the project editor's input for use during the meeting, for the scripts and characters that are the 3<sup>rd</sup> edition, or were expected to be added to it at this meeting. It was used as a convenient reference document during discussion of the different contributions at this meeting.

Documents N3936 and N3945 reflect the discussion and decisions made at this meeting.

**Relevant resolution:**

**M57.12 (Progression of 3rd edition):**

**Unanimous**

- WG2 accepts the final disposition of CD ballot comments for the 3<sup>rd</sup> edition of ISO/IEC 10646 in document N3936.
- WG2 instructs its project editor to forward the final text of the 3<sup>rd</sup> edition, which will include the changes arising from resolutions M57.01 to M57.11, along with the final disposition of comments to the SC2 secretariat for an FCD ballot. The consolidated charts containing changes to glyphs, changes to names, and additions are in document N3945.
- WG2 further instructs the IRG to review the G and T source references for CJK Unified Ideographs in extension C, in addition to assisting the project editor with its continuing review of the extension B charts.

The target revised starting dates are FCD 2010-12 and FDIS 2011-09.

### 11.2 Draft repertoire for ISO/IEC 10646 3rd edition Amendment 1

Input document:

[3891](#) Draft repertoire for ISO/IEC 10646 3rd edition Amendment 1; Mr. Michel Suignard; 2010-09-08

Output document:

[3946](#) AMD 1 – 3rd edition charts; Project Editor; 2010-10-08

[3947](#) Subdivision of work for Amendment 1; Convener – Mike Ksar; 2010-10-09

Document N3891 is the project editor's input for use during the meeting, for the scripts and characters that expected to be added to a new Amendment it at this meeting. It was used as a convenient reference document during discussion of the different contributions at this meeting.

Documents N3946 and N3947 reflect the decisions taken at this meeting to create a subdivision of work and the text for Amendment 1 (PDAM1) to the third edition of the standard.

**Relevant resolutions:**

**M57.22 (Subdivision of work):**

**Unanimous**

WG2 instructs its convener and project editor to create a subdivision proposal (document N3947) for creation of Amendment 1 to ISO/IEC 10646 3<sup>rd</sup> edition, to incorporate characters and scripts accepted for encoding in resolutions M57.13 to M57.21 above. The target starting dates are: PDAM 2010-12, DAM 2011-07 and FDAM 2012-05.

**M57.23 (PDAM 1 to 3<sup>rd</sup> edition):**

**Unanimous**

WG2 instructs its project editor to create the text of for Amendment 1 to the 3<sup>rd</sup> edition of ISO/IEC 10646, incorporating the characters accepted for encoding per resolution M57.22 above on subdivision of work, and send it to SC2 secretariat for a PDAM ballot. The consolidated charts are in document N3946.

### 11.3 Proposed additions to ISO/IEC 10646

Input document:

[3894](#) Proposed additions to ISO/IEC 10646; US NB – Debbie Anderson; 2010-08-13

This document contains a summary of contributions that are under WG2 consideration, that the U.S. national body would like to see progress on at this meeting. The contributions pointed to in this document, were discussed at the meeting under various agenda items during the meeting.

## 12 Contributions carried forward

The following contributions, some of which were on the agenda for meeting 57, and the others from previous meetings), are being carried forward.

Please take note of other contributions from the different sections in these minutes that need review and feedback from experts in national bodies and liaison organizations.

The convener will place them on the next meeting agenda if there are revisions or related contributions on any of these.

|  |  |
|--|--|
| Ahom script ( <a href="#">N3928</a> )                                    | Metrical Symbols ( <a href="#">N3913</a> )   |
| Balti scripts ( <a href="#">N2042</a> , <a href="#">N3842</a> )          | Modi script ( <a href="#">N3780</a> )  |
| Dhives Akuru script ( <a href="#">N3848</a> )                            | Nabataean script ( <a href="#">N3875</a> )   |
| Elbasan script ( <a href="#">N3856</a> )                                 | Naxi Dongba ( <a href="#">N3935</a> )  |
| Gangga Malayu script ( <a href="#">N3798</a> )                           | Nushu script ( <a href="#">N3598</a> , <a href="#">N3705</a> , <a href="#">N3719</a> )       |
| Szekler Hungarian Rovas - punctuation ( <a href="#">N3670</a> )          | Obsolete Simplified Chinese characters ( <a href="#">N3695</a> , <a href="#">N3721</a> )     |
| Gondi script ( <a href="#">N3841</a> )                                   | Old Yi script ( <a href="#">N3288</a> )  |
| Hentaigana characters ( <a href="#">N3698</a> )                          | Pahawh Hmong script ( <a href="#">N3667</a> )  |
| Hungarian Runic script ( <a href="#">N3664</a> , <a href="#">N3697</a> ) | Pau Cin Hau script ( <a href="#">N3781</a> , <a href="#">N3784</a> , <a href="#">N3865</a> ) |
| Hungarian script ( <a href="#">N3693</a> )                               | Pyu Script ( <a href="#">N3874</a> )   |
| Khojki Script ( <a href="#">N3883</a> )                                  | Landa script family ( <a href="#">N3766</a> , <a href="#">N3768</a> )                        |
| Kpelle script ( <a href="#">N3762</a> )                                  | Tolong Siki script ( <a href="#">N3811</a> )   |
| Maithili script ( <a href="#">N3765</a> )                                | Zolai script ( <a href="#">N3864</a> )   |
| Manichaeian script ( <a href="#">N3644</a> )                             |  |
| Mende script ( <a href="#">N3863</a> )                                   |  |

**Action item:** National bodies and liaison organizations are invited to review and provide feedback.

## 13 Liaison reports FYI

### 13.1 Unicode Consortium (N3932)

Input document:

[3932](#) UTC Liaison Report; Unicode Consortium – Peter Constable; 2010-09-30

This document was for information to WG2. There was no discussion.

### 13.2 SEI

Input document:

[3926](#) Liaison report from UC Berkeley (Script Encoding Initiative); Deborah Anderson, UC Berkeley (liaison member to SC2) and Project Leader of Script Encoding Initiative; 2010-09-24

This document was for information to WG2. There was no discussion.

## 14 Other business

### 14.1 Web Site Review

**Relevant resolution:**

**M57.30 (Appreciation to DKUUG for web site support):**

**By Acclamation**

WG2 thanks DKUUG and its staff for its continued support of the web site for WG2 document distribution and the e-mail server.

### 14.2 Future Meetings

**Relevant resolution:**

**M57.29 (Future meetings):**

**Unanimous**

WG2 endorses the following schedule for future meetings of WG2 and of IRG:

WG2 meetings:

- Meeting 58 - 2011-06-06/10, Helsinki, Finland (along with SC2 plenary)
- Meeting 59 - 1<sup>st</sup> Quarter 2012, USA (pending confirmation), Germany (as backup)
- Meeting 60 - 4<sup>th</sup> Quarter 2012, Germany (pending confirmation); Thailand (as backup)
- Meeting 61 - 2<sup>nd</sup> Quarter 2013, Looking for host

IRG meetings:

- IRG Meeting 36, Chong Qing, China; 2011-04-11/15
- IRG Meeting 37, Mountain View, CA, USA; 2011-11-07/11

## 15 Closing

### 15.1 Approval of Resolutions of Meeting 56 (N3804)

Output document:

[3904](#) Resolutions of meeting 57; Convener – Mike Ksar; 2010-10-08

Dr. Umamaheswaran had prepared the draft resolutions with assistance from the drafting committee. There were some editorial changes and rewordings brought up during the adoption of various draft resolutions.

Except for the resolution M57.01 on removing the remove the headers C, J, K, V and H for the CJKV charts for the BMP in the 2<sup>nd</sup> edition of the standard, to which Korea objected, and resolution M57.04 on name change for A78F from LATIN LETTER MIDDLE DOT to LATIN LETTER GLOTTAL DOT, on which the U.S. abstained, the rest of the 31 resolutions were adopted unanimously.

The final resolutions are in document [N3904](#).

At the end of the meeting the breakdown of the total number of characters in the standard are as follows:

- **109379** in FDIS of 2nd edition;
- an additional **776** in FCD 3<sup>rd</sup> edition (bringing the total to **110155** in the 3<sup>rd</sup> edition);
- an additional **281** in PDAM1 to 3<sup>rd</sup> edition, (bringing the total to **110436** at the end of Amendment 1 to 3<sup>rd</sup> edition).

#### **Appreciation:**

##### **Relevant resolution:**

##### **M57.31 (Appreciation to Host):**

##### **By Acclamation**

WG2 thanks the national body of Korea (Republic of), Korean Agency for Technology and Standards (KATS), and its staff, in particular Professor KIM Kyongsok, Ms. KIM Eunsook, Ms. LEE Yoojin and Ms. KONG Soon Duck, for hosting the meeting, and providing excellent meeting facilities, and to the Busan Convention & Visitors Bureau and Hancorn Inc. for their kind hospitality.

### 15.2 Adjournment

The convener adjourned the meeting at 12:20h on Friday, 2010-10-08

## 16 Action items

All the action items recorded in the minutes of the previous meetings from 25 to 51, 53 and 55 have been either completed or dropped. Status of outstanding action items from previous meetings 52, 54, 56 and new action items from the last meeting 57 are listed in the tables below.

- Meeting 25, 1994-04-18/22, Antalya, Turkey (document [N1033](#))
- Meeting 26, 1994-10-10/14, San Francisco, CA, USA (document [N1117](#))
- Meeting 27, 1995-04-03/07, Geneva, Switzerland (document [N1203](#))
- Meeting 28, 1995-06-22/26, Helsinki, Finland (document [N1253](#))
- Meeting 29, 1995-11-06/10, Tokyo, Japan (document [N1303](#))
- Meeting 30, 1996-04-22/26, Copenhagen, Denmark (document [N1353](#))
- Meeting 31, 1996-08-12/16, Québec City, Canada (document [N1453](#))
- Meeting 32, 1997-01-20/24, Singapore (document [N1503](#))
- Meeting 33, 1997-06-30/07-04, Heraklion, Crete, Greece (document [N1603](#))
- Meeting 34, 1998-03-16/20, Redmond, WA, USA (document [N1703](#))
- Meeting 35, 1998-09-21/25, London, UK (document [N1903](#))
- Meeting 36, 1999-03-09/15, Fukuoka, Japan (document [N2003](#))
- Meeting 37, 1999-09-17/21, Copenhagen, Denmark (document [N2103](#))
- Meeting 38, 2000-07-18/21, Beijing, China (document [N2203](#))
- Meeting 39, 2000-10-08/11, Vouliagmeni, Athens, Greece (document [N2253](#))
- Meeting 40, 2001-04-02/05, Mountain View, CA, USA (document [N2353](#)), and
- Meeting 41, 2001-10-15/18, Singapore (document [2403](#))
- Meeting 42, 2002-05-20/23, Dublin, Ireland (document [N2453](#))
- Meeting 43, 2003-12-09/12, Tokyo, Japan (document [N2553](#))
- Meeting 44, 2003-10-20/23, Mountain View, CA, USA (document [N2653](#))

- Meeting 45, 2004-06-21/24, Markham, Ontario, Canada (document N2753)  
 Meeting 46, 2005-01-24/28, Xiamen, China (document N2903)  
 Meeting 47, 2005-09-12/15, Sophia Antipolis, France (document N2953)  
 Meeting 48, 2006-04-24/27, Mountain View, CA, USA (document N3103)  
 Meeting 49, 2006-09-25/29, Tokyo, Japan (document N3153)  
 Meeting 50, 2007-04-23/27, Frankfurt-Am-Main, Germany (document N3253)  
 Meeting 51, 2007-09-17/21, Hangzhou, China (document N3353)  
 Meeting 52, 2008-04-21/25, Redmond, WA, USA (document N3453)  
 Meeting 53, 2008-10-13/17, Hong Kong SAR (document N3553)  
 Meeting 54, 2009-04-20/24, Dublin, Ireland (document N3603)  
 Meeting 55, 2009-10-26/30, Tokyo, Japan (document N3703)  
 Meeting 56, 2010-04-19/23, San José, CA, USA (document N3803)  
 Meeting 57, 2010-10-04/08, Busan, Korea (Republic of) (document N3903) (this document)

### 16.1 Outstanding action items from meeting 52, 2008-04-21/25, Redmond, WA, USA

| Item    | Assigned to / action (Reference resolutions in document N3454, and unconfirmed minutes in document N3453 for meeting 52 - with any corrections noted in section 3 in the minutes of meeting 53 in document N3553)   | Status       |
|---------|---|--------------|
| AI-52-7 | <b>Ireland (Mr. Michael Everson)</b>  |              |
|         | <i>To take note of and act upon the following items:</i>  |              |
| a.      | <b>M52.5 (Principles for Dandas):</b> WG2 adopts the principles guiding the encoding of Dandas in Brahmic scripts from document N3457, and instructs its ad hoc group on P&P to incorporate these into its document on Principles and Procedures (along with the additions from resolution M52.4 above). WG2 further invites the Irish national body to investigate and report on the current practice on use of currently encoded Dandas in relevant scripts towards finalizing the list of scripts and their corresponding Dandas. M53, M54 M55, M56 and M57 – in progress. | In progress. |

### 16.2 Outstanding action items from meeting 54, 2009-04-20/24, Dublin, Ireland

| Item    | Assigned to / action (Reference resolutions in document N3604, and unconfirmed minutes in document N3603 for meeting 54, – with any corrections noted in section 3 in the minutes of meeting 55 in document N3703)  | Status       |
|---------|---|--------------|
| AI-54-7 | <b>China (Mr. Chen Zhuang)</b>  |              |
|         | <i>To take note of and act upon the following items:</i>  |              |
| a.      | <b>M54.18 (Nüshu script):</b> WG2 accepts the ad hoc report in document N3635 on Nüshu script and invites the Chinese national body to provide a revised contribution by 2009-07-31, including considerations for items in the ad hoc report. M55, M56 and M57 - in progress. | In progress. |

### 16.3 Outstanding action items from meeting 56, San Jose, CA, USA, 2010-04-19/23

| Item     | Assigned to / action (Reference resolutions in document N3804, and unconfirmed minutes in document N3803 for meeting 56 – with any corrections noted in section 3 in the minutes of meeting 57 in document N3903)  | Status       |
|----------|--|--------------|
| AI-56-7  | <b>Unicode Consortium (Mr. Peter Constable)</b>  |              |
| a.       | To work with the project editor on a mutually acceptable syntax for USIs in NUSI.txt between Unicode and 10646.  | In progress. |
| b.       | To send updates to UTS #37 on Ideographic Variation Database to WG2 for feedback.  | In progress. |
| AI-56-12 | <b>All national bodies and liaison organizations</b>   |              |
|          | <i>To take note of and provide feedback on the following items.</i>  |              |
| a.       | <i>(Authors of the document are from several national bodies)</i><br><b>M56.17 (Tangut script):</b> WG2 accepts the recommendations in the Tangut ad hoc report in document N3833 and invites the authors of the Tangut proposal in document N3797, together with other Tangut experts, to submit a revised proposal taking into account the ad hoc recommendations. | In progress. |
| b.       | <i>(Authors of the document are from several national bodies)</i><br><b>M56.18 (Jurchen script):</b> WG2 invites the authors of the proposal to encode Jurchen script in document N3788 to further revise the document based on feedback in document N3817, discussion at meeting 56, and in consultation with other Jurchen experts.                                | In progress. |

|    |   |              |
|----|---|--------------|
| g. | to take note of the activities on various minority scripts under the Script Encoding Initiative (document N3814), and encourage any national experts on these scripts to review and contribute. | In progress. |
|----|---|--------------|

**16.4 New action items from meeting 57, Busan, Korea (Republic of), 2010-10-04/08**

| Item           | Assigned to / action (Reference resolutions in document N3904, and unconfirmed minutes in document N3903 for meeting 57 (this document you are reading)).   | Status                         |
|----------------|---|--------------------------------|
| <b>AI-57-1</b> | <b>Recording Secretary - Dr. V.S. UMaaheswaran</b>  |                                |
| a.             | To finalize the document N3904 containing the adopted meeting resolutions and send it to the convener as soon as possible.  | Completed; see document N3804. |
| b.             | To finalize the document N3903 containing the unconfirmed meeting minutes and send it to the convener as soon as possible.  | Completed; see document N3903. |
| <b>AI-57-2</b> | <b>Convener - Mr. Mike Ksar</b>   |                                |
|                | <i>To take note of and act upon the following items:</i>  |                                |
| a.             | M57.24 (Roadmap snapshot): WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3929) to the WG2 web site and communicate the same to SC2 secretariat.   | Completed.                     |
| b.             | M57.03 (Request from SC35): In response to the liaison request in document N3897 from JTC 1/ SC35, WG2 accepts the recommendations in the ad hoc report in document N3943, for several glyph improvements, annotations to several keyboard symbols, and the following two named UCS sequence identifiers to the standard, using the syntax for USIs in the standard:<br><21F3, 20E2> KEYBOARD SYMBOL SCROLLING, and<br><2139, 20E2> KEYBOARD SYMBOL HELP<br>WG2 further accepts the liaison response in document N3948, and <b>instructs its convener to forward it to ISO/IEC JTC1/SC35 via the SC2 secretariat.</b> | Completed.                     |
| c.             | To communicate with the SC2 secretariat to ensure that the ballot summary document identifies the source (national body) associated with the ballot comments.   |                                |
| d.             | M57.22 (Subdivision of work): WG2 instructs its convener and project editor to create a subdivision proposal (document N3947) for creation of Amendment 1 to ISO/IEC 10646 3rd edition, to incorporate characters and scripts accepted for encoding in s M57.13 to M57.21 above. The target starting dates are: PDAM 2010-12, DAM 2011-07 and FDAM 2012-05.   | Completed.                     |
| e.             | To add relevant contributions carried forward from previous meetings to agenda of next meeting. (See list under AI-57-xx-yy below.)   |                                |
| <b>AI-57-3</b> | <b>Editor of ISO/IEC 10646: (Mr. Michel Suignard with assistance from contributing editors)</b>   |                                |
|                | <i>To prepare the appropriate amendment texts, sub-division proposals, collection of editorial text for the next edition, corrigendum text, or entries in collections of characters for future coding, with assistance from other identified parties, in accordance with the following:</i>   |                                |
| a.             | The editor is to prepare a contribution to the UTC, to describe the proposed new Extension B format containing the UCS11 sources, along with some sample charts.  |                                |
| b.             | M57.01 (Headers in CJK main block charts): WG2 decides to remove the headers C, J, K, V and H in the charts for the CJK Unified Ideographs block (4E00 to 9FCB) in the BMP of the standard, retaining the glyphs in the current sequence for source references (G, T, J, K, V, H), including retaining any blank slots in their current positions. WG2 instructs its project editor to reflect this decision in the charts for FDIS of ISO/IEC 10646 2nd edition prior to issuing the FDIS ballot, and to reflect the same change in the text to be generated for the third edition at the end of this meeting.       |                                |
| c.             | M57.02 (Miscellaneous character additions): WG2 accepts the following characters for encoding in the standard:<br>a. 20B9 INDIAN RUPEE SIGN with its glyph as shown in document N3887, with a cross reference pointing out that it is not the same as the current 20A8 RUPEE SIGN.<br>b. 1CF3 VEDIC SIGN ROTATED ARDHAVISARGA<br>1CF4 VEDIC TONE CANDRA ABOVE<br>1CF5 VEDIC SIGN JHVAMULIYA, and,<br>1CF6 VEDIC SIGN UPADHMANIYA  |                                |

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|  | <p>with their glyphs as shown on page 14 of document <a href="#">N3890</a>.</p> <p>c. A7F8 MODIFIER LETTER CAPITAL H WITH STROKE<br/>A7F9 MODIFIER LETTER SMALL LIGATURE OE, and<br/>A7AA LATIN CAPITAL LETTER H WITH HOOK (along with the related annotations from document <a href="#">N3840</a>)<br/>with their glyphs as shown on page 27 of document <a href="#">N3890</a>.</p> <p>d. 1F16A RAISED MC SIGN, and<br/>1F16B RAISED MD SIGN<br/>with their glyphs as shown on page 50 of document <a href="#">N3890</a>.</p> <p>e. 2CF2 COPTIC CAPITAL LETTER BOHAIRIC KHEI, and<br/>2CF3 COPTIC SMALL LETTER BOHAIRIC KHEI<br/>with their glyphs as shown on page 17 of document <a href="#">N3890</a>.</p> <p>f. 2E33 RAISED DOT<br/>2E34 RAISED COMMA<br/>with their glyphs as shown on page 1 of document <a href="#">N3912</a>.</p> <p>g. 2D66 TIFINAGH LETTER YE, and<br/>2D67 TIFINAGH LETTER YO<br/>with their glyphs as shown on page 20 of document <a href="#">N3890</a>.</p> <p>h. CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source reference UTC-00867, and with its glyph as shown in document <a href="#">N3885</a>.<br/>The IRG convener is to take note of this addition and remove it from the IRG's collection for future extension.</p> <p>i. 0EDE LAO LETTER KHMU GO, and<br/>0EDF LAO LETTER KHMU NYO<br/>with their glyphs as shown on page 2 of document <a href="#">N3893</a>.</p> <p>j. A792 LATIN CAPITAL LETTER C WITH BAR, and<br/>A793 LATIN SMALL LETTER C WITH BAR<br/>with their glyphs as shown in document <a href="#">N3896</a>.</p> |  |
|  | <p>d. <i>M57.03 (Request from SC35)</i>: In response to the liaison request in document <a href="#">N3897</a> from JTC 1/ SC35, WG2 accepts the recommendations in the ad hoc report in document <a href="#">N3943</a>, for several glyph improvements, annotations to several keyboard symbols, and the following two named UCS sequence identifiers to the standard, using the syntax for USIs in the standard:<br/>&lt;21F3, 20E2&gt; KEYBOARD SYMBOL SCROLLING, and<br/>&lt;2139, 20E2&gt; KEYBOARD SYMBOL HELP<br/>WG2 further accepts the liaison response in document <a href="#">N3948</a>, and instructs its convener to forward it to ISO/IEC JTC1/SC35 via the SC2 secretariat.</p>  |  |
|  | <p>e. <i>M57.04 (Miscellaneous name changes)</i>: WG2 accepts the following character name change in the standard:<br/>A78F - from LATIN LETTER MIDDLE DOT to LATIN LETTER GLOTTAL DOT</p>  |  |
|  | <p>f. <i>M57.05 (Miscellaneous name changes)</i>: WG2 accepts the following character name changes in the standard:<br/>1F540 - from CIRCLED CROSS POMMY to CIRCLED CROSS POMMEE<br/>1F541 - from CROSS POMMY WITH HALF-CIRCLE BELOW to CROSS POMMEE WITH HALF-CIRCLE BELOW<br/>1F542 - from CROSS POMMY to CROSS POMMEE</p>  |  |
|  | <p>g. <i>M57.06 (Formal name alias)</i>: WG2 accepts to add the formal name alias "WEIERSTRASS ELLIPTIC FUNCTION" to 2118 SCRIPT CAPITAL P.</p>   |  |
|  | <p>h. <i>M57.07 (CJK Ext. B glyphs from 2nd edition)</i>: WG2 accepts to add the glyphs from the chart for CJK Extension B in the 2nd edition, as a set of additional glyphs to be included in the chart for CJK Extension B in the 3rd edition. These glyphs are to be identified with a pseudo-source reference in the form of UCS11-2xxxx, where 2xxxx is a code point in the SIP in the 2nd edition.</p>  |  |
|  | <p>i. <i>M57.08 (Annex S)</i>: WG2 accepts replacing Annex S in the 3rd edition with a revised version of Annex S from the 2nd edition.</p>   |  |
|  | <p>j. <i>M57.09 (Named USIs for Sinhala)</i>: WG2 accepts to add the following three named UCS sequence identifiers to the standard, using the syntax of USIs in the standard:<br/>&lt;0DCA, 200D, 0DBA&gt; SINHALA CONSONANT SIGN YANSAYA<br/>&lt;0DCA, 200D, 0DBB&gt; SINHALA CONSONANT SIGN RAKAARAANSAYA, and<br/>&lt;0DBB, 0DCA, 200D&gt; SINHALA CONSONANT SIGN REPAYA</p>  |  |
|  | <p>k. <i>M57.10 (Arabic additions)</i>: WG2 accepts to add 35 characters in code positions 08A0,</p>  |  |

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|           | 08A2 to 08AC, 08E4 to 08EF, and 08F4 to 08FE, in the Arabic Extended-A block, with their names, code positions and glyphs as shown on page 2 in document N3882, in support of several African and Asian languages.   |  |
| <b>i.</b> | <p><i>M57.11 (Miao script):</i> With reference to document N3877 WG2 accepts the following changes to the encoding of Miao script:</p> <p>a. Add one column to the Miao block so that it extends from 16F00 to 16F9F</p> <p>b. Insert the following 5 additional Miao characters, rearranging the characters in the block:</p> <ul style="list-style-type: none"> <li>U+16F0C MIAO LETTER YI TTA <ul style="list-style-type: none"> <li>• used in Hei Yi</li> </ul> </li> <li>U+16F12 MIAO LETTER YI NNA <ul style="list-style-type: none"> <li>• used in Hei Yi</li> </ul> </li> <li>U+16F31 MIAO LETTER YI DZHA <ul style="list-style-type: none"> <li>• used in Hei Yi</li> </ul> </li> <li>U+16F56 MIAO VOWEL SIGN AHH <ul style="list-style-type: none"> <li>• used in Gan Yi</li> </ul> </li> <li>U+16F5B MIAO VOWEL SIGN WO <ul style="list-style-type: none"> <li>• used in Hei Yi</li> </ul> </li> </ul> <p>c. the following name changes:</p> <ul style="list-style-type: none"> <li>16F51 from MIAO LETTER ASPIRATION to MIAO SIGN ASPIRATION</li> <li>16F52 from MIAO LETTER REFORMED VOICING to MIAO SIGN REFORMED VOICING,</li> <li>16F53 from MIAO LETTER REFORMED ASPIRATION to MIAO SIGN REFORMED ASPIRATION</li> <li>16F7D from MIAO LETTER TONE RIGHT to (moved) 16F8F MIAO TONE RIGHT</li> <li>16F7E from MIAO LETTER TONE TOP RIGHT to (moved) 16F90 MIAO TONE TOP RIGHT</li> <li>16F7F from MIAO LETTER TONE ABOVE to (moved) 16F91 MIAO TONE ABOVE, and</li> <li>16F80 from MIAO LETTER TONE BELOW to (moved) 16F92 MIAO TONE BELOW</li> </ul> <p>See the final chart for the Miao block is as shown in document N3945.</p> |  |
| <b>m.</b> | <p><i>M57.12 (Progression of 3rd edition):</i></p> <ul style="list-style-type: none"> <li>- WG2 accepts the final disposition of CD ballot comments for the 3rd edition of ISO/IEC 10646 in document N3936.</li> <li>- WG2 instructs its project editor to forward the final text of the 3rd edition, which will include the changes arising from s M57.01 to M57.11, along with the final disposition of comments to the SC2 secretariat for an FCD ballot. The consolidated charts containing changes to glyphs, changes to names, and additions are in document N3945.</li> <li>- WG2 further instructs the IRG to review the G and T source references for CJK Unified Ideographs in extension C, in addition to assisting the project editor with its continuing review of the extension B charts.</li> </ul> <p>The target revised starting dates are FCD 2010-12 and FDIS 2011-09.</p>  | Completed (items b through m); see document N3967 (FCD 3 <sup>rd</sup> Ed.). |
| <b>n.</b> | <p><i>M57.13 (Armenian additions):</i> WG2 accepts to encode:</p> <ul style="list-style-type: none"> <li>1F53E RIGHT-FACING ARMENIAN ETERNITY SIGN, and</li> <li>1F53F LEFT-FACING ARMENIAN ETERNITY SIGN</li> </ul> <p>with their glyphs as shown in document N3924.</p>  |  |
| <b>o.</b> | <p><i>M57.14 (Sinhala numerals):</i> With reference to document N3888, WG2 accepts to:</p> <ul style="list-style-type: none"> <li>- Encode 10 Sinhala numerals in code positions 0DE6 to 0DEF in the Sinhala block</li> <li>- Create a new block in the range 111E0 to 111FF named Sinhala Archaic Numbers and populate it with 20 Sinhala archaic numerals in code positions 111E1 to 111F4,</li> </ul> <p>with the names and glyphs as shown on pages 4, 5 and 20 of document N3891.</p>   |  |
| <b>p.</b> | <p><i>M57.15 (Bassa Vah script):</i> WG2 accepts to create a new block named Bassa Vah in the range 16AD0 to 16AFF, and populate it with 37 characters, some of which are combining, in code positions 16AD0 to 16AED and 16AF0 to 16AF6, with their names and glyphs as shown on page 4 in document N3941.</p>  |  |
| <b>q.</b> | <p><i>M57.16 (Coptic numbers):</i> With reference to document N3843, WG2 accepts to:</p> <ul style="list-style-type: none"> <li>- Encode 0605 ARABIC COPTIC NUMBER MARK (name and code position</li> </ul>   |  |

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|                | <p>changed) in the Arabic block</p> <ul style="list-style-type: none"> <li>- Create a new block in the range 102E0 to 102FF named Coptic Numbers and populate it with 28 characters, one of which is a combining mark, in code positions 102E0 to 102FB, with the final names and glyphs as shown on pages 2 and 7 of document <a href="#">N3946</a>.</li> </ul>   |   |
| r.             | <i>M57.17 (Sindhi script)</i> : With reference to document N3871, WG2 accepts to create a new block named Sindhi in the range 112B0 to 112FF, and populate it with 69 characters, some of which are combining, in code positions 112B0 to 112EA and 112F0 to 112F9, with their names and glyphs as shown on page 12 in document <a href="#">N3946</a> .  |   |
| s.             | <i>M57.18 (Palmyrene script)</i> : WG2 accepts to create a new block named Palmyrene in the range 10860 to 1087F, and populate it with 32 characters in code positions 10860 to 1087F, with their names and glyphs as shown on page 4 in document <a href="#">N3867</a> .  |   |
| t.             | <i>M57.19 (Old North Arabian script)</i> : WG2 accepts to create a new block named Old North Arabian in the range 10A80 to 10A9F, and populate it with 32 characters in code positions 10A80 to 10A9F, with their names and glyphs as shown on pages 6 and 7 in document <a href="#">N3937</a> .   |   |
| u.             | <i>M57.20 (Myanmar additions for Shan Pali)</i> : WG2 accepts to create a new block named Myanmar Extended-B in the range A9E0 to A9FF, and populate it with 7 characters in code positions A9E0 to A9E6, with their names and glyphs as shown on pages 6 and 7 in document <a href="#">N3906</a> .  |   |
| v.             | <i>M57.21 (Mro script)</i> : WG2 accepts to create a new block named Mro in the range 16A40- 16A6F, and populate it with 43 characters in code positions 16A40 to 16A5E, 16A60 to 16A69, 16A6E and 16A6F, with their names and glyphs as shown on page 6 in document <a href="#">N3589</a> .   |   |
| w.             | <i>M57.22 (Subdivision of work)</i> : WG2 instructs its convener and project editor to create a subdivision proposal (document <a href="#">N3947</a> ) for creation of Amendment 1 to ISO/IEC 10646 3rd edition, to incorporate characters and scripts accepted for encoding in s M57.13 to M57.21 above. The target starting dates are: PDAM 2010-12, DAM 2011-07 and FDAM 2012-05.   | Complete.   |
| x.             | <i>M57.23 (PDAM 1 to 3rd edition)</i> : WG2 instructs its project editor to create the text of for Amendment 1 to the 3rd edition of ISO/IEC 10646, incorporating the characters accepted for encoding per M57.22 above on subdivision of work, and send it to SC2 secretariat for a PDAM ballot. The consolidated charts are in document <a href="#">N3946</a> .  | Complete (items n to v); see document <a href="#">N3968</a> (PDAM1).    |
| <b>AI-57-4</b> | <b>IRG Rapporteur and IRG Editor (Dr. Lu Qin)</b>  |   |
|                | <i>To take note of and act upon the following items:</i>   |   |
| a.             | <p><i>M57.02 (Miscellaneous character additions)</i>: WG2 accepts the following characters for encoding in the standard:</p> <p>...</p> <p>h. CJK UNIFIED IDEOGRAPH-9FCC (corresponding to Adobe-Japan1-6 CID+20156), with its source reference UTC-00867, and with its glyph as shown in document <a href="#">N3885</a>.</p> <p><b>The IRG convener is to take note of this addition and remove it from the IRG's collection for future extension.</b></p> <p>...</p> |   |
| b.             | <p><i>M57.12 (Progression of 3rd edition)</i>:</p> <p>...</p> <ul style="list-style-type: none"> <li>- WG2 further instructs the IRG to review the G and T source references for CJK Unified Ideographs in extension C, in addition to assisting the project editor with its continuing review of the extension B charts.</li> </ul> <p>...</p>  | Complete; see document <a href="#">N3967</a> (FCD 3 <sup>rd</sup> Ed.). |
| <b>AI-57-5</b> | <b>Ad hoc group on Principles and Procedures (Dr. Umamaheswaran)</b>   |   |
| a.             | <b>M57.25 (Annex I of P&amp;P)</b> : WG2 accepts the text for replacing section I.2 Guideline for "to be disunified" errors, in document <a href="#">N3859</a> from the IRG, and instructs its ad hoc on Principles and Procedures to update Annex I in the P&P document (as document <a href="#">N3902</a> ) for adoption at WG2 meeting 58.  | Complete.   |
| <b>AI-57-6</b> | <b>Ad hoc group on roadmap (Dr. Umamaheswaran)</b>   |   |
| a.             | To update the Roadmaps with the results from this meeting.   |   |
| <b>AI-57-7</b> | <b>Ireland (Mr. Michael Everson)</b>   |   |

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| a.              | to contact Armenia about the discussion at the meeting regarding Armenian Eternity symbols, and get the feedback to WG2.   |  |
| b.              | to communicate to Mr. Karl Pentzlin, with reference to his contribution on Triple Diacritics in document <a href="#">N3915</a> to pursue Solution B rather than Solution A.  |  |
| c.              | to communicate to Mr. Karl Pentzlin et al a summary of WG2 meeting 57 discussion on their contribution on Latin letters for Janlif in document <a href="#">N3916</a> ,   |  |
| d.              | is invited to make contributions on proposed changes or improvement to charts, for feedback from national bodies and liaison organizations, prior to bringing them up as ballot comments.  |  |
| <b>AI-57-8</b>  | <b>China (Mr. Chen Zhuang)</b>   |  |
|                 | <i>To take note of and act upon the following items:</i>   |  |
| a.              | <i>M57.26 (Uighur, Kazakh and Kirgiz):</i> With reference to requests from China in documents <a href="#">N3889</a> and <a href="#">N3919</a> , WG2 endorses the ad hoc report in document <a href="#">N3938</a> , and invites China to revise their proposal taking into considerations the feedback.   |  |
| b.              | <i>M57.27 (Khitani):</i> With reference to documents <a href="#">N3918</a> and <a href="#">N3925</a> on Khitan, WG2 endorses the ad hoc report in document <a href="#">N3942</a> , and invites China to submit a revised proposal addressing the feedback received to date.  |  |
| c.              | <i>M57.28 (Chinese Chess symbols):</i> With reference to document <a href="#">N3910</a> on Chinese Chess Symbols, WG2 invites China to submit a revised proposal addressing the feedback received during meeting M57 and any further national body feedback received prior to WG2 meeting M58.   |  |
| <b>AI-57-9</b>  | <b>Norway</b>  |  |
| a.              | Is invited, with reference to the disposition of its ballot comment T2 on CD 10646 3rd edition in document <a href="#">N3936</a> , to submit a separate contribution proposing new characters addressing the issue of removing the annotation on U+041A LATIN CAPITAL LETTER ENG, including addressing any data that may be broken.  |  |
| <b>AI-57-10</b> | <b>All national bodies and liaison organizations</b>   |  |
|                 | <i>To take note of and provide feedback on the following items.</i>  |  |
| a.              | document <a href="#">N3927</a> DTR on 'Definitions and relationship between symbols, icons, animated icons, pictograms, characters and glyphs'; from SC35.   |  |
| b.              | documents <a href="#">N3895</a> , <a href="#">N3908</a> , <a href="#">N3922</a> , <a href="#">N3931</a> and <a href="#">N3940</a> on Duployan shorthands; WG2 may decide to include this script in Amendment 1 at Helsinki meeting.  |  |
| c.              | document <a href="#">N3907</a> on Teuthonista phonetic characters.   |  |
| d.              | document <a href="#">N3914</a> on Characters used in Lithuanian dialectology.  |  |
| e.              | document <a href="#">N3917</a> on Double Hyphen (revised)  |  |
| f.              | document <a href="#">N3933</a> on 2 combining Arabic characters for Koranic representations.   |  |
| g.              | proposals carried over from previous meetings: Ahom script ( <a href="#">N3928</a> ), Balti scripts ( <a href="#">N2042</a> , <a href="#">N3842</a> ), Dhives Akuru script ( <a href="#">N3848</a> ), Elbasan script ( <a href="#">N3856</a> ), Gangga Malayu script ( <a href="#">N3798</a> ), Szekler Hungarian Rovas - punctuation ( <a href="#">N3670</a> ), Gondi script ( <a href="#">N3841</a> ), Hentaigana characters ( <a href="#">N3698</a> ), Hungarian Runic script ( <a href="#">N3664</a> , <a href="#">N3697</a> ), Hungarian script ( <a href="#">N3693</a> ), Khojki Script ( <a href="#">N3883</a> ), Kpelle script ( <a href="#">N3762</a> ), Maithili script ( <a href="#">N3765</a> ), Manichaean script ( <a href="#">N3644</a> ), Mende script ( <a href="#">N3863</a> ), Metrical Symbols ( <a href="#">N3913</a> ), Modi script ( <a href="#">N3780</a> ), Nabataean script ( <a href="#">N3875</a> ), Naxi Dongba ( <a href="#">N3935</a> ), Nushu script ( <a href="#">N3598</a> , <a href="#">N3705</a> , <a href="#">N3719</a> ), Obsolete Simplified Chinese characters ( <a href="#">N3695</a> , <a href="#">N3721</a> ), Old Yi script ( <a href="#">N3288</a> ), Pahawh Hmong script ( <a href="#">N3667</a> ), Pau Cin Hau script ( <a href="#">N3781</a> , <a href="#">N3784</a> , <a href="#">N3865</a> ), Pyu Script ( <a href="#">N3874</a> ), Landa script family ( <a href="#">N3766</a> , <a href="#">N3768</a> ), Tolong Siki script ( <a href="#">N3811</a> ), Zolai script ( <a href="#">N3864</a> ). |  |
| h.              | <i>Resolution M57.29 (Future meetings):</i> WG2 endorses the following schedule for future meetings of WG2 and of IRG:<br>WG2 meetings:<br>Meeting 58 - 2011-06-06/10, Helsinki, Finland (along with SC2 plenary)<br>Meeting 59 - 1 <sup>st</sup> Quarter 2012, USA (pending confirmation), Germany (as backup)<br>Meeting 60 - 4 <sup>th</sup> Quarter 2012, Germany (pending confirmation); Thailand (as backup)<br>Meeting 61 - 2 <sup>nd</sup> Quarter 2013, Looking for host<br>IRG meetings:<br>IRG Meeting 36, Chong Qing, China; 2011-04-11/15<br>IRG Meeting 37, Mountain View, CA, USA; 2011-11-07/11  |  |

**END OF MINUTES DOCUMENT**