

**Universal Multiple-Octet Coded Character Set  
(UCS)**

ISO/IEC JTC 1/SC 2 N \_\_\_\_\_  
ISO/IEC JTC 1/SC 2/WG 2 N4254  
Date: 2012-02-17

<b>Source:</b> WG 2 meeting 59, Microsoft Campus, Mountain View, CA, USA; 2012-02-13/17
<b>Title:</b> Resolutions of WG 2 meeting 59
<b>Action:</b> For approval by SC 2 and for information to WG 2
<b>Status:</b> Adopted at meeting 59 of WG 2
<b>Distribution:</b> ISO/IEC JTC 1/SC 2 and WG 2

Experts from Canada, China, Finland, Ireland, IRG, Japan, JTC1/SC35 (Liaison), Korea (Republic of), Lithuania, SEI - UC Berkeley (Liaison), TCA (Liaison), the Unicode Consortium (Liaison), and USA were present when the following resolutions were adopted (see attached attendance list).

*(Reset) Character count 110181 in FDIS 3rd edition*

*Addition of 1844 in FCD 3<sup>rd</sup> edition*

*Character count 112025 (total at end of Amd. 1 to 3<sup>rd</sup> edition)*

**RESOLUTION M59.01 (Disposition of ballot comments of PDAM 1.2):**

**Unanimous**

WG2 accepts the disposition of PDAM 1.2 ballot comments in document N4239. The following significant changes are noted:

- a. A78F LATIN LETTER MIDDLE DOT is moved out for processing in the next amendment
- b. 109 characters in the OLD HUNGARIAN block 10C80 to 10CFF, with unchanged block name and character names, and a revised font from document N4196, are moved out for processing in the next amendment
- c. 1F37E FORK AND KNIFE WITH BLACK PLATE is moved out for processing in the next amendment
- d. 2BF4 and 10 Arrows in the range 1F880-1F889 are deleted unifying them with other symbols
- e. Two combining characters FE2B COMBINING MACRON LEFT HALF BELOW and FE2C COMBINING MACRON RIGHT HALF BELOW, from document N4131, are added
- f. 1F678 SANS-SERIF HEAVY LOW DOUBLE COMMA QUOTATION MARK ORNAMENT is added
- g. **43** Wingdings and other symbols are added
- h. Various symbols were reordered or reassigned code positions
- i. Several of the Arrows were renamed
- j. Glyphs for several encoded Arrows in the Arrows block and in the first column in Miscellaneous Symbols and Arrows block, and some other symbols in different blocks were updated

The final code positions, glyphs and names are in the charts in document N4244.

*count: 1844-76 = 1768 additions in Amendment 1*

*count: 111 additions in next Amendment*

*[NOTE: Item g above was corrected from 44 Wingdings to 43 Wingdings after double-checking by the project editor, after the adoption of resolutions at the meeting; the total in Amd. 1 is corrected to 1768 ... Uma]*

**RESOLUTION M59.02 (Progression of Amendment 1):**

**Unanimous**

WG2 instructs its project editor to prepare and to forward the final text of Amendment 1 to the 3<sup>rd</sup> Edition, which will include the changes arising from resolutions M59.01 above, along with the final disposition of comments, to the SC2 secretariat for a DAM ballot. The (unchanged) target starting dates are - DAM 2012-03 and FDAM 2012-11.

*count: addition of 1768 in Amendment 1*

**RESOLUTION M59.03 (IDS Syntax in Annex I):**

**Korea (Republic of) - Abstained**

**Canada, China, Finland, Ireland, Japan, Lithuania and USA - Accepted**

WG2 accepts the proposal from the US national body in document N4234 to remove the deficiency and align the definition of IDS with the current practice, and instructs its project editor to modify the text in Annex I accordingly.

**RESOLUTION M59.04 (Emoji variants):**

**Unanimous**

WG2 accepts the 214 standard variants for Emoji as described in document N4182 for inclusion in the next amendment to the standard.

**RESOLUTION M59.05 (Named USIs for characters for Uyghur and Chaghatay):**

**Unanimous**

With reference to request for NUSIs from China in document [N4218](#) and the proposed alternative NUSIs in document [N4231](#) from SEI, WG2 accepts the proposed 9 language-neutral NUSIs from document [N4231](#) for inclusion in the next amendment to the standard. WG2 further invites China to work with experts from the Unicode Consortium in preparing a Unicode Technical Note to assist the Uyghur and Chaghatay users in implementation using the standard.

**RESOLUTION M59.06 (Characters from PDAM 1.2 ballot comments for next Amendment):**

**Unanimous**

WG2 accepts the following characters proposed in national body ballot comments, from the disposition of ballot comments in document [N4239](#) to be encoded in the next amendment:

- 3 characters 1F594 to 1F596 from Irish comment T.6 item a
- 2 characters 2B74 and 2B75 from Irish comment T.1 item c
- 92 characters from US comment T.6 item c, and,
- 2 characters 1F4F8 and 1F3C5 from US comment T.6 item d.

*count: 111+99=210 additions in next Amendment*

**RESOLUTION M59.07 (Psalter Pahlavi script):**

**Unanimous**

WG2 accepts to create a new block named Psalter Pahlavi in the range 10B80 to 10BAF, and populate it with **29** characters in code positions 10B80 to 10B91, 10B99 to 10B9C, and 10BA9 to 10BAF, with their glyphs and character names as shown on page 6 in document [N4040](#). The script is a right-to-left script.

*count: 210+29=239 additions in next Amendment*

**RESOLUTION M59.08 (Mahajani script):**

**Unanimous**

WG2 accepts to create a new block named Mahajani in the range 11150 to 1117F, and populate it with **39** characters in code positions 11150 to 11176, with their glyphs and character names as shown on page 11 in document [N4126](#).

*count: 239+39=278 additions in next Amendment*

**RESOLUTION M59.09 (Grantha script):**

**Unanimous**

WG2 accepts to create a new block named Grantha in the range 11300 to 1137F, and populate it with **82** characters in code positions 11301 to 11303, 11305 to 1130C, 1130F to 11310, 11313 to 11328, 1132A to 11330, 11332, 11333, 11335 to 11339, 1133C to 11344, 11347, 11348, 1134B to 1134D, 11357, 1135E to 11363, 11366 to 1136C, and 11370 to 11374, with their glyphs and character names as shown on pages 4 to 8 in document [N4135](#), and 1135D GRANTHA SIGN PLUTA with its glyph from document [N4136](#). Some of these characters are combining marks.

*count: 278+83=361 additions in next Amendment*

**RESOLUTION M59.10 (Modi script):**

**Unanimous**

WG2 accepts to create a new block named Modi in the range 11600 to 1165F, and populate it with **79** characters in code positions 11600 to 11644, and 11650 to 11659, with their glyphs and character names as shown on pages 20 and 21 in document [N4034](#). Some of these characters are combining marks.

*count: 361+79=440 additions in next Amendment*

**RESOLUTION M59.11 (Mende script):**

**Unanimous**

WG2 accepts to create a new block named Mende in the range 1E800 to 1E8CF, and populate it with **197** characters in code positions 1E800 to 1E8C4, with their glyphs and character names as shown on pages 7 to 11 in document [N4167](#). Mende is a right-to-left script.

*count: 440+197=637 additions in next Amendment*

**RESOLUTION M59.12 (Playing Card additions):**

**Unanimous**

WG2 accepts to add **23** Playing Card symbols at 1F0BF, and 1F0E0 to 1F0F5, with their names and glyphs from pages 9 to 11 in document [N4089](#).

*count: 637+23=660 additions in next Amendment*

**RESOLUTION M59.13 (Myanmar Extended-B additions):**

**Unanimous**

WG2 accepts to add **24** Myanmar Extended-B characters at A9E7 to A9FE, with their names and glyphs from pages 9 to 11 in document [N3976](#).

*count: 660+24=684 additions in next Amendment*

**RESOLUTION M59.14 (Caucasian Albanian script):**

**Unanimous**

WG2 accepts to create a new block named Caucasian Albanian in the range 10530 to 1056F, and populate with **53** characters in code positions 10530 to 10563 and 1056F with their names and glyphs from pages 6 in document [N4131](#) (with modified glyph for 1056F as shown in the chart in document [N4245](#)).

*count: 684+53=737 additions in next Amendment*

**RESOLUTION M59.15 (Pahawh Hmong script):**

**Unanimous**

WG2 accepts to create a new block named Pahawh Hmong in the range 16B00 to 16B8F, and populate with **126** characters in code positions 16B00 to 16B45, 16B50 to 16B59, 16B5B to 16B61, 16B63 to 16B77, and 16B7E to 16B8F, with their names and glyphs as shown in document [N4245](#).

*count: 737+126=863 additions in next Amendment*

**RESOLUTION M59.16 (Miscellaneous character additions):**

**Unanimous**

WG2 accepts to encode the following **37** characters in the standard:

- a. 111C9 SHARADA EKAM, in the Sharada block, with its glyph from page 1 in document [N4158](#).
- b. **2** combining marks in the Vedic Extensions block:  
1CF8 VEDIC TONE RING ABOVE, and  
1CF9 VEDIC TONE DOUBLE RING ABOVE  
with their glyphs from page 1 in document [N4134](#).
- c. 061C ARABIC LETTER MARK (from document [N4180](#)) in the Arabic block, with its glyph as a dashed box with 'ALM' inside it.
- d. 1107F BRAHMI NUMBER JOINER in the Brahmi block, with its glyph from page 2 in document [N4166](#).
- e. 0C34 TELUGU LETTER LLLA, in the Telugu block, with its glyph from page 1 in document [N4214](#).
- f. **2** characters in the Ancient Greek Numbers block:  
1018B GREEK ONE QUARTER SIGN  
1018C GREEK SINUSOID SIGN  
with their glyphs from page 1 in document [N4194](#).
- g. 101A0 GREEK SYMBOL TAU RHO, in the Ancient Symbols block, with its glyph from page 1 in document [N4194](#).
- h. **2** characters in the Cyrillic Supplement block:  
0528 CYRILLIC CAPITAL LETTER EN WITH LEFT HOOK, and  
0529 CYRILLIC SMALL LETTER EN WITH LEFT HOOK,  
with their glyphs from page 1 in document [N4137](#).
- i. **4** characters in the Cyrillic Supplement block:  
052A CYRILLIC CAPITAL LETTER DZZHE  
052B CYRILLIC SMALL LETTER DZZHE  
052C CYRILLIC CAPITAL LETTER DCHE  
052D CYRILLIC SMALL LETTER DCHE  
with their glyphs from page 1 in document [N4199](#).
- j. **2** characters in the Cyrillic Supplement block:  
052E CYRILLIC CAPITAL LETTER EL WITH DESCENDER  
052F CYRILLIC SMALL LETTER EL WITH DESCENDER  
with their glyphs from page 1 in document [N4219](#).
- k. **4** characters in the Myanmar Extended-A block:  
AA7C MYANMAR SIGN TAI LAING TONE-2  
AA7D MYANMER SIGN TAI LAING TONE-5  
AA7E MYANMAR LETTER SHWE PALAUNG CHA  
AA7F MYANMAR LETTER SHWE PALAUNG SHA  
with their glyphs from document [N3976](#).
- l. **8** characters in the Runic block:

16F1 RUNIC LETTER K  
16F2 RUNIC LETTER SH  
16F3 RUNIC LETTER OO  
16F4 RUNIC LETTER FRANKS CASKET OS  
16F5 RUNIC LETTER FRANKS CASKET IS  
16F6 RUNIC LETTER FRANKS CASKET EH  
16F7 RUNIC LETTER FRANKS CASKET AC  
16F8 RUNIC LETTER FRANKS CASKET AESC  
with their glyphs from page 1 in document [N4013](#).

- m. **5** characters in the Latin Extended-D block:  
A796 LATIN CAPITAL LETTER B WITH FLOURISH  
A797 LATIN SMALL LETTER B WITH FLOURISH  
A7AB LATIN CAPITAL LETTER REVERSED OPEN E  
A7AC LATIN CAPITAL LETTER SCRIPT G  
A7F7 LATIN EPIGRAPHIC LETTER SIDEWAYS I  
with their glyphs from page 1 in document [N4030](#).
- n. A7AD LATIN CAPITAL LETTER L WITH BELT in the Latin Extended-D block with its glyph from page 1 in document [N4228](#).
- o. **2** characters in the Kana Supplement block:  
1B002 HIRAGANA LETTER SMALL KO  
1B003 KATAKANA LETTER SMALL KO  
with their glyphs from document [N3987](#).

*count: 863+37=900 additions in next Amendment*

**RESOLUTION M59.17 (Subdivision of work):**

**Unanimous**

WG2 instructs its convener and project editor to create a subdivision proposal (document [N4248](#)) for creation of Amendment 2 to ISO/IEC 10646 3<sup>rd</sup> edition, to incorporate characters and scripts accepted for encoding in resolutions M59.03 to M59.16 above. WG2 notes that the subdivision proposal includes provisions for including additional characters or new scripts during the ballot resolution phase towards agile processing of PDAMs and speeding up the work of WG2 between face to face meetings. The target starting dates are: PDAM 2012-03, DAM 2012-11 and FDAM 2013-07.

**RESOLUTION M59.18 (PDAM 2 to 3rd edition):**

**Unanimous**

WG2 instructs its project editor to create the text of for Amendment 2 to the 3<sup>rd</sup> edition of ISO/IEC 10646, incorporating the characters accepted for encoding per resolution M59.17 above on subdivision of work, and send it to SC2 secretariat for a PDAM ballot. The consolidated charts are in document [N4245](#).

*count: 900 additions in Amd.2 to 3<sup>rd</sup> edition*

**RESOLUTION M59.19 (Old Hanzi and IRG):**

**Unanimous**

WG2 accepts the proposals from China, TCA and Japan, and instructs the IRG, to remove Old Hanzi related tasks from the scope of work items of the IRG, effective after IRG meeting 38, 2012-06-18/22. Mature Old Hanzi proposals, when available, can be submitted directly to WG2.

**RESOLUTION M59.20 (Lithuanian):**

**Unanimous**

With reference to various documents on Lithuanian, WG2 accepts the recommendation from the Lithuanian ad hoc group in document [N4242](#).

WG2 will *not* take action to encode additional characters as was proposed in [N4191](#). Instead the recommendation is to continue using the defined USI sequences in the standard. WG2 invites national bodies and liaison organizations to alert their software implementers to take special care to properly process the USIs in the standard that are used to represent various characters in languages worldwide, including Lithuanian. WG2 further invites the Lithuanian national body to refer to the ad hoc report in document [N4242](#) for details.

**RESOLUTION M59.21 (Roadmap snapshot):**

**Unanimous**

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document [N4186](#)) to the WG2 web site and communicate the same to SC2 secretariat.

**RESOLUTION M59.22 (Future meetings):**

**Unanimous**

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

WG2 meetings:

Meeting 60 - 2012-10-22/26, Chiang Mai, Thailand (N4255 - Logistics and N4255-A - Invitation)  
(colocated with SC2 meeting 18)

Meeting 61 – 2013-06-10/14, Vilnius, Lithuania (pending confirmation of dates);  
Berlin, Germany (as backup, pending confirmation)

Meeting 62 – 4th Quarter 2013; Looking for host.

IRG meetings:

IRG Meeting 38, Gyeongju, Korea, 2012-06-18/22

IRG Meeting 39, Hanoi, Vietnam (venue changed from Hong Kong S.A.R.), 2012-11-12/16

**RESOLUTION M59.23 (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.

**RESOLUTION M59.24 (Appreciation to Host):**

**By Acclamation**

WG2 thanks the national body of the United States of America, the Unicode Consortium and its officers and staff, in particular Dr. Mark Davis, Mr. Michel Suignard, Ms. Lisa Moore and Ms. Irina Shlyapnikova, for hosting the meeting, providing excellent meeting facilities and for their kind hospitality.

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*(Reset) Character count 110181 in FDIS 3rd edition*

*Addition of 1768 in DAM 1 to 3<sup>rd</sup> edition*

*Addition of 900 in PDAM 2 to 3<sup>rd</sup> edition*

*Character count 112849 (total at end of Amd. 2 to 3<sup>rd</sup> edition)*

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**Attendance List**

**JTC1/SC2/WG2 Meeting 59, Mountain View, CA, USA; 2012-02-13/17**

The following **25** attendees representing **8** national bodies, and **4** liaison organizations were present at different times during the meeting.

<b>Name</b>	<b>Representing</b>	<b>Affiliation</b>
Mike KSAR	.Convener, USA	Independent
Irina SHLYAPNIKOVA	.Host, Unicode Consortium	Unicode Consortium
Mark DAVIS	.Host, Unicode Consortium	Unicode Consortium
LU Qin	.IRG Rapporteur	Hong Kong Polytechnic University
Julie S. C. CHUANG	.TCA – Liaison	Academia Sinica
Lin-Mei WEI	.TCA – Liaison	Chinese Foundation for Digitization Technology
Alain LABONTÉ	Canada; Editor 14651; SC35 - Liaison	Independent
V. S. (Uma) UMAMAHESWARAN	Canada; Recording Secretary	IBM Canada Limited
CHEN Zhuang	China	Chinese Electronics Standardization Institute
Wushour SILAMU	China	Xinjiang University
Tero AALTO	Finland	CSC-IT Center for Science
Michael EVERSON	Ireland; Contributing Editor	Evertype
Satoshi YAMAMOTO	Japan	Hitachi Limited
KIM Kyongsok	Korea (Republic of)	Busan National University
Algidas KRUPOVNICKAS	Lithuania	Lithuanian Standards Board
Evaldos KULBOKAS	Lithuania	Lithuanian IT Association
Craig CUMMINGS	USA	Rearden Commerce
Ken LUNDE	USA	Adobe Systems Inc.
Lisa MOORE	USA	IBM Corporation
Richard COOK	USA	Dept. of Linguistics, Univ., of California, Berkeley
Roozbeh POURNADER	USA	Google Inc.
Ken WHISTLER	USA; Contributing Editor	Sybase Inc.
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