

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

ISO/IEC JTC 1/SC 2 N4375  
ISO/IEC JTC 1/SC 2/WG 2 N4604  
Date: 2014-10-03

<b>Source:</b> WG 2 meeting 63, Hotel Taj Samudra, Colombo, Sri Lanka; 2014-09-29/10-03
<b>Title:</b> Recommendations from WG 2 meeting 63
<b>Action:</b> For approval by SC 2 and for information to WG 2
<b>Status:</b> Adopted at meeting 63 of WG 2
<b>Distribution:</b> ISO/IEC JTC 1/SC 2 and WG 2

Experts accredited by the national bodies or liaison organizations for Canada, China, Ireland, IRG, Japan, JTC1/SC35 (Liaison), Korea (Republic of), SEI - UC Berkeley (Liaison), Sri Lanka, TCA (Liaison), the United Kingdom, the Unicode Consortium (Liaison), and the USA were present when the following recommendations were adopted (see attached attendance list).

*Character count 120585 in 4th edition  
101 additions in DAM1 to the 4th edition  
6741 for future amendment 2 (end of meeting 62)  
Character count 127427 (total allocated till end of meeting 62)*

**Recommendation M63.01 (Disposition of DAM1 ballot comments):**

**Unanimous**

WG2 accepts the disposition of ballot comments for DAM1 to the 4th edition in document [N4615](#). All the comments being editorial, WG2 further recommends that the updated text of DAM1 be sent to SC2 to forward to ITTF for publication.

**count: 101 additions in Amendment 1(unchanged)**

**Recommendation M63.02 (Amendment 2 additions since meeting 62):**

**Unanimous**

WG2 notes that in addition to the total of **6741** characters listed under resolutions M62.14 (in document [N4454](#)) the following additions were included in the PDAM2 ballot document SC2/N4340 (preliminary charts in [N4585](#)):

- a. A new block named Bhaiksuki 11C00-11C6F populated with **97** characters from document [N4573](#)
- b. **14** Arabic Quranic marks in Arabic Extended-A block from document [N4589](#)
- c. **5** Mongolian Birga characters in the Mongolian block from document [N4542](#)
- d. **4** CJK unified ideographs 9FCD...9FD0 requested per IRG resolutions IRG 42.4 and IRG 42.8 (document [N4582](#))
- e. **5** urgently needed CJK unified ideographs from Unicode Consortium in document [N4584](#)
- f. **20** CJK unified ideographs for Slavonic transliteration from document [N4583](#) (Table 1), and,
- g. **1** character 1123E KHOJKI SIGN SUKUN from document [N4575](#)

**count: 6741+146 = 6887 additions in Amendment 2**

**Recommendation M63.03 (Disposition of ballot comments of PDAM2 to 4th edition):**

**Mr. Toshiya Suzuki objected**

WG2 accepts the disposition of PDAM2 ballot comments in document [N4649](#). The following significant changes are noted:

- a. Create a new block 11660...1167F named MONGOLIAN SUPPLEMENT  
Move the 5 currently encoded Birgas from 181A...181E in the Mongolian block to this new block  
Accept the proposed **8** new Birgas in document [N4632](#) and add them in this new block  
Rename existing ones and name new ones per suggestion for naming proposed in comment T.5 by UK with code positions, names and glyphs as shown in the charts in document [N4637](#)
- b. Insert **1** new Tangut ideograph after 17131, correct the glyphs and reorder several of the Tangut ideographs, per document [N4588R2](#) (final charts in document [N4637](#)) and in response to PDAM2 comment T.2 from China
- c. Move 6 Tamil archaic characters from 0BDF, 0BFB...0BFF to 11FF0...11FF5 in Tamil Supplement block
- d. Rename 11A29 to ZANABAZAR SQUARE LETTER-A
- e. Rename 1B100 to NUSHU ITERATION MARK and move it to 16FE1 in Ideographic Symbols and Punctuation block; reorder the Nushu block by moving up 1B101...1B28C by one code position
- f. Add **1** character 08D4 ARABIC SMALL HIGH WORD AR-RUB in Arabic Extended-A block (from document [N4592](#))
- g. Add **3** characters - 08BB ARABIC LETTER AFRICAN FEH, 08BC ARABIC LETTER AFRICAN QAF, and 08BD ARABIC LETTER AFRICAN NOON in Arabic Extended-A block (from document [N4597](#))
- h. Move 1F32D to 23FE and rename it POWER SLEEP SYMBOL, and,
- i. Several corrections to glyphs, annotations and headings in nameslists

**count: 6887+13 = 6900 additions in Amendment 2**

**Recommendation M63.04 (Changes to sub-clauses related to presentation of CJK ideograph sources):**

**Mr. Toshiya Suzuki objected**

WG2 accepts the proposed changes to sub-clause 23.1, sub-clause 23.2, and the updated glyphs for 205 J column ideographs, described in section 2.2 from document [N4620](#), for inclusion in Amendment 2. WG2 further requests SC2 to communicate to Unicode Consortium to take note of recommendation in section 2.3 of document [N4620](#). WG2 additionally requests the IRG to review the resulting CJK Unified Ideographs charts that will be in document [N4624](#).

**Recommendation M63.05 (Updates to CJK chart and source references):**

**Unanimous**

WG2 accepts the proposed changes to the seven source references and glyphs as proposed in document [N4621](#) for inclusion in Amendment 2.

**Recommendation M63.06 (CJK Unified Ideographs Extension F):**

**Unanimous**

WG2 accepts to create a new block named 'CJK Unified Ideographs Extension F' in the range 2CEB0...2DDBF in the SMP, and populate it with the **3852** ideographs proposed in document [N4580](#) (summary form and its attached files), for inclusion in Amendment 2.

**count: 6900+3852 = 10752 additions in Amendment 2**

**Recommendation M63.07 (Osage script):**

**Unanimous**

WG2 accepts to create a new block named 'Osage' in the range 104B0...104FF in the SMP, and populate it with **72** characters in code positions 104B0...104D3 and 104D8...104FB, with their names and glyphs as shown in document [N4619](#), for inclusion in Amendment 2.

**count: 10752+72 =10824 additions in Amendment 2**

**Recommendation M63.08 (Cyrillic characters):**

**Unanimous**

WG2 accepts to create a new block named 'Cyrillic Extended-C' in the range 1C80...1C8F in the BMP, and populate it with **9** characters in code positions 1C80...1C88, with their names and glyphs based on document [N4607](#), with updated names and charts shown in document [N4637](#), for inclusion in Amendment 2.

**count: 10824+9 =10833 additions in Amendment 2**

**Recommendation M63.09 (Combining Glagolitic letters):**

**Unanimous**

WG2 accepts to create a new block named 'Glagolitic Supplement' in the range 1E000...1E02F in the SMP, and populate it with **38** characters (all are combining letters) in code positions 1E000...1E02A, with their names and glyphs as shown in document [N4608](#), for inclusion in Amendment 2.

**count: 10833+38 =10871 additions in Amendment 2**

**Recommendation M63.10 (Tangut radicals):**

**Unanimous**

WG2 accepts to create a new block named 'Tangut Radicals' in the range 18900..18BFF in the SMP, and populate it with **753** characters in code positions 18900..18BF0, with their names and glyphs as shown in document [N4636](#), for inclusion in Amendment 2.

**count: 10871+753 = 11624 additions in Amendment 2**

**Recommendation M63.11 (Additional changes in Amendment 2):**

**Unanimous**

WG2 accepts the following additional changes in Amendment 2:

- a. Add A8C5 SAURASHTRA SIGN CANDRABINDU with its glyph from document [N4590](#) in the Saurashtra block
- b. Add 0C80 KANNADA SIGN SPACING CANDRABINDU with its glyph in document [N4591](#) in the Kannada block
- c. Add 20BE LARI SIGN in the Currency Symbols block, with a glyph based on the Logo in document [N4593](#) that is acceptable to the proposers
- d. Add 1018E NOMISMA SIGN in the Ancient Greek Numbers block; with the 'default' form for the glyph shown in document [N4594](#)
- e. Add 2E44 DOUBLE SUSPENSION MARK in the Supplemental Punctuation block, with glyph similar to the one in document [N4595](#)
- f. Add 1018D GREEK INDICTION SIGN in Ancient Greek Numbers block, with 'default' form for the glyph from document [N4596](#)
- g. Rotate the glyph for 3127 BOPOMOFO LETTER I by 90 degrees, with an appropriate change in the annotation, per request in document [N4609](#), and,
- h. Reverse the shape of current glyph for 301C WAVE DASH as requested in document [N4606](#)
- i. Add a new extended collection named MOJI-JOHO-KIBAN IDEOGRAPHS based on document [N4625](#), introductory text for collection from Japanese expert and an appropriate modification by the editor to Note 3 under section 4.25 to permit non-named sequences in extended collections.

**Recommendation M63.12 (Progression of PDAM2):**

**Mr. Toshiya Suzuki abstained**

WG2 recommends that its project editor prepares and forwards the final text of Amendment 2 to the 4th edition of the standard, which will include the changes arising from recommendations **M63.03** to **M63.11** above, along with the final disposition of comments (document [N4649](#)) to the SC2 secretariat for processing as a PDAM 2.1 ballot. The final code charts will be in document [N4637](#). The target starting dates are modified to: PDAM 2.1 2014-10 DAM: 2015-05, FDAM: 2015-11.

WG2 notes that a possibly revised Adlam script and characters to satisfy 'tones on human being emoji', are some additional candidates for inclusion in the text of Amendment 2.

**Recommendation M63.13 (Tones for human being emoji):**

**Unanimous**

WG2 requests SC2 to communicate to Unicode Consortium that SC2 would like UTC to have a public review issue on the encoding to satisfy 'tones on human being emoji' to enable national bodies to get public feedback from their countries or regions. SC2 is requested also to alert national bodies to keep a lookout for the announcement of such a public review issue on the Unicode web site.

**Recommendation M63.14 (Project subdivision for future 5th edition of the standard):**

**Unanimous**

Recognizing the need to amalgamate the content of 4th edition with Amendments 1 and 2, and to enable further additions to the standard that have been proposed once they are mature, WG2 recommends to its convener and project editor to generate a new project subdivision proposal for the next (5th) edition of the standard, along with a suitable schedule, and submit it to SC2 for approval.

**Recommendation M63.15 (Khitan Large script):**

**Unanimous**

WG2 invites the authors of document [N4631](#) to revise their proposal on the Khitan Large script taking into account the feedback summarized in the ad hoc report document [N4642](#), working with other experts interested in this script.

**Recommendation M63.16 (Shuishu script):**

**Unanimous**

WG2 invites the authors of document [N4638](#) to revise their proposal on the Shuishu script taking into account the feedback received at this meeting, working with other experts interested in this script.

**Recommendation M63.17 (Naxi Dongba script):**

**Unanimous**

WG2 invites the authors of document [N4633](#) to revise their proposal on the Naxi Dongba script taking into account the feedback received at this meeting, working with other experts interested in this script.

**Recommendation M63.18 (Roadmap snapshot):**

**Unanimous**

WG2 requests its convener to post the updated snapshot of the roadmaps (in document [N4617](#)) to the WG2 web site and communicate the same to SC2 secretariat.

WG2 also requests SC2 to create on SC2 LiveLink site, a standing document named 'Roadmaps', an appropriately edited version of the current '[Roadmaps](#)' page on WG2 website, with a single URL pointing to [www.unicode.org/roadmaps](http://www.unicode.org/roadmaps), towards eliminating the need to create a snapshot prior to each WG2 meeting.

**Recommendation M63.19 (Future meetings):**

**Unanimous**

WG2 endorses the following schedule for future meetings:

WG2 Meeting 64 - 2015-10-19/23, Matsue, Japan (location is tentative) (co-located with SC2)

WG2 Meeting 65 - 2016-10 (tentative), Russia (tentative), USA (backup) (co-located with SC2)

WG2 Meeting 66 - 2017-10 (tentative), China (pending confirmation) (co-located with SC2)

IRG Meeting 44 - 2015-06-15/19, Seoul, Korea (Republic of)

IRG Meeting 45 - 2015-10-26/30 (2015-11-16/20 as backup), HK Polytechnic Univ., Hong Kong SAR

**Recommendation M63.20 (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.

**Recommendation M63.21 (Appreciation to Host):**

**By Acclamation**

WG2 thanks the Sri Lankan Standards Institution (SLSI) and Information and Communication Technology Agency (ICTA) of Sri Lanka, in particular, Dr. Senaweera, Mr. Reshan Dewapura, Ms. Aruni Goonetilleke, Ms. Chamali Perera, Ms. Rita Kern, Mr. Athula Pushpakumara, Mr. Malth Galketiya and Mr. Dinesh Fernando, for hosting the meeting, providing excellent meeting facilities, and for their kind hospitality and dinner.

**Recommendation M63.22 (Appreciation to the Convener):**

**By Acclamation**

WG2 expresses its profound gratitude for the expert guidance and leadership provided to WG2 over the past 25+ years in the progression and development of ISO/IEC 10646 by our convener Mr. Mike Ksar, and wishes him all the best in his future endeavours.

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*Character count **120585** in 4th edition  
101 additions in DAM1 to the 4th edition  
11630 in PDAM2.1 (end of meeting 63)  
Character count **132316** (total allocated till end of meeting 63)*

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**Attendance List**

**JTC1/SC2/WG2 Meeting 63, Colombo, Sri Lanka; 2014-09-29/10-03**

The following **44** experts accredited by **8** national bodies and **4** liaison organizations were present at different times during the meeting.

<b>Name</b>	<b>Accreditation</b>	<b>Affiliation</b>
Mike KSAR	Convener, USA	Independent
LU Qin	IRG Rapporteur	Hong Kong Polytechnic University
Hsiu-Sheng CHI	TCA – Liaison	Chinese Culture University
Kuang-Shun (Rick) LIN	TCA – Liaison	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs
Lin-Mei (Selena) WEI	TCA – Liaison	Chinese Foundation for Digitization Technology
Suh-Chyin CHUANG	TCA – Liaison	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs
Alain LABONTÉ	Canada; Editor 14651; SC35 - Liaison (acting)	Independent
V. S. (Uma) UMAMAHESWARAN	Canada; Recording Secretary	IBM Canada Limited
CHEN Zhuang	China	Chinese Electronics Standardization Institute
DING Biyuan	China	Department of Computer Science and Technology, Tsinghua University
HE Lifeng	China	Yunnan Minority Languages Committee
HE Lili	China	China Publishing Group Digital Media Co. Ltd.
LI Guoying	China	Beijing Normal University
NIE Hongyin	China	Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences
SUN Bojun	China	Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences
WU Yingzhe	China	Inner Mongolia University
XIA Jinjing	China	Department of Computer Science and Technology, Tsinghua University
YAO Qinjun	China	Institute of Ethnology
Yasen YIMING	China	Xinjiang Uyghur Autonomous Regional Working Committee of Minorities' Language and Writing
ZHANG Yifei	China	China National Database of Characters Program Leading Office
ZHAO Liming	China	School of Humanities, Tsinghua University
ZHAO Qinglian	China	Yunnan Minority Languages Committee
ZHOU Xiaowen	China	Beijing Normal University
Michael EVERSON	Ireland; Contributing Editor	Evertime
Shuichi TASHIRO	Japan	IT Promotion Agency (IPA)
Tatsuo KOBAYASHI	Japan	IT Promotion Agency (IPA)
Toshiya SUZUKI	Japan	Hiroshima University
KIM Kyongsok	Rep. of KOREA	Pusan National University, Rep. of KOREA
Yoshiki MIKAMI	SC2 Chair	University of Technology, Japan
Ayuko NAGASAWA	SC2 Secretariat	IPSJ/ITSCJ
Aruni GOONETILLEKE	Sri Lanka	ICTA
G. Balachandran	Sri Lanka	Banks' CSIRT
Hasitha KARUNARATNE	Sri Lanka	Sri Lankan Standards Institution (SLSI)
Harsha WIJAYAWARDHANA	Sri Lanka	School of Computing, University of Colombo
Jayantha FERNANDO	Sri Lanka	ICTA
M.C. FERNANDO	Sri Lanka	Sri Lankan Standards Institution (SLSI)
Ruvan WEERASINGHE	Sri Lanka	School of Computing, University of Colombo
S. SHANMUGARAJAH	Sri Lanka	Consultant
T. UTHAYAKUMAR	Sri Lanka	Sri Lankan Standards Institution (SLSI)
Viraj WELGAMA	Sri Lanka	School of Computing, University of Colombo
Andrew WEST	UK	Independent
Michel SUIGNARD	USA; Project Editor	Unicode Consortium
Deborah ANDERSON	USA; SEI, UC Berkeley – Liaison	Department of Linguistics, University of California, Berkeley
Peter CONSTABLE	USA; Unicode Consortium – Liaison	Microsoft Corporation