

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

ISO/IEC JTC 1/SC 2 N4497
ISO/IEC JTC 1/SC 2/WG 2 N4772
Date: 2016-09-30

Source: WG 2 meeting 65, Adobe, San Jose, CA, USA; 2016-09-26/30
Title: Recommendations from WG 2 meeting 65
Action: For approval by SC 2 and for information to WG 2
Status: Adopted at meeting 65 of WG 2
Distribution: ISO/IEC JTC 1/SC 2 and WG 2

Experts accredited by the national bodies or liaison organizations for Canada, IRG, Japan, SEI - UC Berkeley (Liaison), the Unicode Consortium (Liaison), and the USA were present when the following recommendations were adopted (see attached attendance list). *All the recommendations were accepted without any objection.*

*Character count **120585** in 4th edition
101 additions in DAM1 to the 4th edition
7278 in FDAM2 (end of meeting 64)
Character count prior to additions to 5th edition **127964**
4833 additions in 2nd CD of 5th edition (end of meeting 64)
Character count **132797** (total allocated till end of meeting 64)*

Observation M65.01 (Additions in 5th edition since meeting 64):

WG2 notes that document N4728 lists **8447** character additions over and above 4th edition plus its two amendments, as sent out for DIS ballot. This is an increase in the count from **4833** noted as part of CD for 5th edition at the end of meeting 64, an increase of **3614** characters.

Count: 132797+3614=136411 in DIS for 5th edition

Observation M65.02 (Additions in Amendment 1 to 5th edition):

WG2 also notes that the balloted text for PDAM1 to the 5th edition, per document N4729, added **359** characters.

Count in Amd. 1 to 5th edition: 359

Recommendation M65.03 (Hentaigana)

WG2 recommends that SC2 accept the repertoire of **285** Hentaigana characters from document N4732 (Hentaigana_Revised_Repertoire-201606.pdf), and encode the first 254 of these in code points 1B002 to 1B0FF in the Kana Supplement block, and the remaining 31 characters at code points 1B100...1B11E, in a new block named Kana Extended-A (in the range 1B100..1B12F), for inclusion in Amendment 1 to the 5th edition. WG2 also recommends adding the character name alias 'HENTAIGANA LETTER E-1' to 1B001 as proposed in document N4731.

Count in Amd. 1 to 5th edition: 359+285=644

Recommendation M65.04 (Disposition of ballot comments of PDAM-1 to 5th Edition):

WG2 recommends that SC2 accept the disposition of PDAM-1 ballot comments in document N4767. The following significant changes are noted:

- a. Dropping the word 'ASTROLOGICAL' in the character names for the 4 Astrological Symbols for Pluto: 2BD4...2BD7.
- b. Dropping the word 'ASTROLOGICAL PLANET' in the character names for the 8 Uranian Astrological symbols: 2BE0...2BE7.
- c. Correcting the name for 2E4B to 'TRIPLE DAGGER'
- d. Removing 13430 EGYPTIAN HIEROGLYPH LIGATURE JOINER, moving characters at 13431...13432 up by one code position to 13430..13431, naming the column 13430...1343F as a new block 'Egyptian Hieroglyphs Format Controls', and, moving the start of the Egyptian Hieroglyphs Extended-A block to 13440.
- e. Adding Tangut ideographs 187ED...187F1 to TangutSrc.txt file.

Count in Amd. 1 to 5th edition: 644-1 = 643

Recommendation M65.05 (Khitan Small Script)

WG2 accepts the recommendations of the ad hoc on Khitan Small Script, in document N4768, and recommends that SC2 accept to encode the script in a new block 18B00...18CFF named 'Khitan Small Script' and populate it with **484** characters with their names, code positions and glyphs based on document N4771.

Count in Amd. 1 to 5th edition: 643+484=1127

Recommendation M65.06 (Xiangqi game symbols)

WG2 recommends that SC2 accept the set of 30 Xiangqi game symbols (circled ideographs) in the Enclosed Ideographic Supplement block, with their names, code positions and glyphs based on document [N4766](#).

Count in Amd. 1 to 5th edition: 1127+30=1157

Recommendation M65.07 (Japanese core Kanji collection)

WG2 recommends that SC2 accept to add a new collection named 'Japanese core Kanji' consisting of 2136 ideographs to add to clause A.4 CJK Collections, along with the JapaneseCoreKanji.txt file, based on document [N4744](#).

Recommendation M65.08 (Additional changes in Amendment 1 to 5th edition):

WG2 recommends that SC2 accept the following additional changes in the Amendment 1 to the 5th edition of the standard:

- a. Add the following **4** circled characters in the Geometric Shapes Extended block (with their glyphs from document [N4719R](#)):
1F7D5 CIRCLED TRIANGLE
1F7D6 NEGATIVE CIRCLED TRIANGLE
1F7D7 CIRCLED SQUARE
1F7D8 NEGATIVE CIRCLED SQUARE
- b. Add the following **3** Medieval punctuation marks in Supplemental Punctuation block.
2E4C MEDIEVAL COMMA (with its glyph from document [L2/16-220](#))
2E4D PARAGRAPHUS MARK, and, 2E4E PUNCTUS ELEVATUS MARK (with their glyphs from document [L2/16-235](#))
- c. Move up characters 2BD4...2BD7 by one code position to 2BD3...2BD6 in Miscellaneous Symbols and Arrows block.
- d. Add following **9** astrological symbols (with their glyphs from document [L2/16-080R](#)) in Miscellaneous Symbols and Arrows block:
2BD7 TRANSPLUTO
2BD8 PROSERPINA
2BD9 ASTRAEA
2BDA HYGIEA
2BDB PHOLUS
2BDC NESSUS
2BDD WHITE MOON SELENA
2BDE BLACK DIAMOND ON CROSS
2BDF TRUE LIGHT MOON ARTA
- e. Add following **4** half-star symbols (with their glyphs from document [N4747](#)) in Miscellaneous Symbols and Arrows block:
2BE8 LEFT HALF BLACK STAR
2BE9 RIGHT HALF BLACK STAR
2BEA STAR WITH LEFT HALF BLACK
2BEB STAR WITH RIGHT HALF BLACK
- f. Add 0A76 GURMUKHI ABBREVIATION SIGN (with its glyph from document [L2/16-209R](#)) in Gurmukhi block

Count in Amd. 1 to 5th edition: count 1157+21=1178

Recommendation M65.09 (Progression of Amendment 1 to the 5th edition):

WG2 recommends that its project editor prepares the final text of Amendment 1 to the 5th edition of the standard, which will include the changes arising from recommendations **M65.03** to **M65.08** above, along with the final disposition of comments (document [N4767](#)), and forward it to the SC2 secretariat for processing as a PDAM 1.2 ballot. The draft code charts are in document [N4770](#).

The target starting dates are modified to PDAM 1.2 2016-12, DAM 1 2017-04.

Count: 1178 additions in Amendment 1

Recommendation M65.10 (Mongolian ad hoc report):

WG2 accepts the Mongolian ad hoc report in document [N4769](#), and recommends to SC2 that the project editor prepares the recommended updates to the Standardized Variation Sequences for Mongolian in the standard. At the discretion of the project editor, these changes could be considered as part of disposition of ballot comments on the DIS of the 5th edition (which is currently under ballot).

Recommendation M65.11 (Project subdivision for Amendment 2 to the 5th edition of the standard):

Anticipating the need for encoding additional scripts and characters that will have mature proposals prior to the next SC2 meeting, WG2 recommends to its convener and project editor to generate a new project subdivision proposal for a second amendment to the 5th edition of the standard, and submit it to SC2 for approval. WG2 notes that adding 'CJK Extension G characters' is a candidate for inclusion in Amendment 2. Tentative target starting dates for Amendment 2 to the 5th edition are: PDAM2 2017-07, DAM2 2017-12.

Recommendation M65.12 (Shuishu script):

WG2 invites the authors of document N4758 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 M65.13 (Primitive Scripts of South West China):

WG2 invites the authors of document N4759 to revise their proposal on the Primitive Scripts of South West China taking into account the feedback received at this meeting, working with other experts interested in this script.

Recommendation M65.14 (Request from SAT Daizokyo for Cat. C liaison):

WG2 welcomes the liaison relationship with SAT (as requested in document N4714) and accepts the offer from Dr. Ken Lunde to be the liaison representative to SAT from WG2. WG2 recommends that SC2 accept the request, and process it further.

Recommendation M65.15 (Future meetings):

WG2 endorses the following schedule for future meetings:

WG2 Meeting 66 - 2017-09-25/29, Hohhot, Inner Mongolia, China, (co-located with SC2).
(Date to be confirmed)

WG2 Meeting 67 - 2018-09 or 10 (London, UK).

IRG Meeting 49 – San Jose, CA, USA (Adobe), 2017-10-16/20.

Appreciation M65.16 (Appreciation to DKUUG for web site support):

WG2 thanks DKUUG and its staff for its continued support of the web site for the older WG2 documents.

Appreciation M65.17 (Appreciation to Unicode Consortium for web site support):

WG2 thanks the Unicode Consortium and its staff for providing the new web site and its support for WG2.

Appreciation M65.18 (Appreciation to Host):

WG2 thanks the national body of USA (INCITS) for hosting the meeting. WG 2 expresses its appreciation to the Unicode Consortium and Adobe Systems Inc. and their staff, in particular to Ms. Ellen Mastro and Dr. Ken Lunde, for arranging the meeting facilities and for the administrative support. WG2 also expresses its appreciation to the Unicode Consortium for their kind hospitality.

*Character count prior to additions to 5th edition***127964**
8447 additions in DIS of 5th edition (prior to and at end of meeting 65)
1178 additions in PDAM 1.2 (end of meeting 65)
Character count **137589**(total allocated till end of meeting 65)

Attendance List

JTC1/SC2/WG2 Meeting 65, Adobe, San Jose, CA, USA; 2016-09-26/30

The following 29 experts and guests accredited by 5 national bodies and 3 liaison organizations were present at different times during the meeting.

Name	Accreditation	Affiliation
Shuichi TASHIRO	.Acting SC 2 Chairman	Information-technology Promotion Agency
Ayuko NAGASAWA	.Acting SC 2 Secretariat	IPSJ/ITSCJ
Qin LU	.IRG rapporteur	Hong Kong Polytechnic University
Chui-Hsing CHIU	.TCA (Cat.C Liaison)	Bureau of Standards, Ministry of Economic Affairs
Lin Mei WEI	.TCA (Cat.C Liaison)	Chinese Foundation for Digitization Technology
Suh-Chyin CHUANG	.TCA (Cat.C Liaison)	Bureau of Standards, Ministry of Economic Affairs
Michel SUIGNARD	.WG 2 Convenor; USA	Unicode Inc.
Alain LABONTÉ	Canada	Independent
V.S. (Uma) UMAMAHESWARAN	Canada	IBM Canada
Chaolin PAN	China	Guizhou Minzu University
Ching-Ju (Daisy) LAI	China	SIL International
Jinshi WEI	China	Archives of Sandu County
Liming ZHAO	China	Tsinghua University
Nashunwuritu	China	Inner Mongolia University
Qinjun YAO	China	Shui Scripts Research Center of Libo County
Yingzhe WU	China	Inner Mongolia University
Zhuang CHEN	China	CESI
Michael EVERSON	Ireland	Evertype
Tatsuo KOBAYASHI	Japan	Meiji University
Wataru TAKAGI	Japan	Hitachi Ltd.
Craig CUMMINGS	USA	VMware
Ken LUNDE	USA	Adobe Systems Inc.
Kenneth WHISTLER	USA	Unicode Inc.
Steven LOOMIS	USA	IBM Corporation
Isabelle ZAUGG	USA (Guest)	American University
Miryam KOFMAN	USA (Guest)	IBM Corporation
Ou RILEKE	USA (Guest)	Greyson Translation Service
Deborah ANDERSON	USA, UC Berkeley (Cat.C Liaison)	University of California, Berkeley
Lisa MOORE	USA, Unicode (Cat.A Liaison)	Unicode Inc.