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

ISO/IEC JTC 1/SC 2 N4810
ISO/IEC JTC 1/SC 2/WG 2 N5154
Date: 2022-06-23

Source:	WG 2 meeting 69, virtual, USA; 2022-06-20/23
Title:	Recommendations from WG 2 meeting 69
Action:	For approval by SC 2 and for information to WG 2
Status:	Adopted at meeting 69 of WG 2
Distribution:	ISO/IEC JTC 1/SC 2 and WG 2

Experts accredited (or invited) by the national bodies or liaison organizations for Canada, China, Czech Republic, Germany, Indonesia, Ireland, Japan, Republic of Korea, UK, SC34 (Liaison), SEI - UC Berkeley (Liaison), TCA (Liaison), the Unicode Consortium (Liaison), and USA, were present when the following recommendations were adopted (see attached attendance list).

Character count in 6th edition (143872 + 55 -2) **143925**
***5326** additions proposed for CDAM1.2*
*Character count **149251** (total allocated till prior to meeting 69)*

Recommendation M69.01 (Disposition of ballot comments of CDAM1.2 to 6th Edition):
WG2 recommends that SC2 accept the disposition of ballot comments on CDAM1.2 to 6th edition in document N5194 (SC2 N4809). The following significant changes are noted:
    a.   Addition:
        2B739 CJK UNIFIED IDEOGRAPH-2B739
    b.   Glyph changes for U+5F50 and U+32351.

Count in CDAM1.2: +1
Consensus

Recommendation M69.02 (Additional changes to Amendment 1):
WG2 recommends that the Project Editor add the 51 Horizontal Hanja extensions documented in N5179 and further CJK related glyph and data changes included in document N5195.

Consensus

Recommendation M69.03 (Progression of CDAM1.2):
WG2 recommends that the Project Editor prepare the final text of CDAM1.2 of the 6th edition of the standard, which will include the changes arising from recommendations **M69.01** through **M69.02** above, along with the final disposition of comments (document N5194), and forward it to the SC2 secretariat for processing as a DAM ballot. The target starting dates are DAM 2022-07-01, FDAM 2023-02-01, AMD 2023-05-01.

Count: 5326 +1=5327
Consensus

Recommendation M69.04 (New Program of work for a second amendment to ISO/IEC 10646 6th edition):
WG2 recommends that SC2 accept to start a new program of work for a second amendment to ISO/IEC 10646 6th edition. The supporting document is N5182 and the starting repertoire is detailed in N5181. The target dates are: CDAM: 2022-08-01, DAM 2024-06-01, FDAM 2025-02-01, AMD 2025-05-01.

Consensus

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Recommendation M69.05 (new scripts):
WG2 recommends that the Project Editor add the following scripts with following new blocks, characters with their glyphs as referenced in document N5181 for future encoding in the standard:
a. TODHRI (block: 105C0..105FF), new code points: 105C0-105F3
b. GARAY (block: 10D40..10D8F), new code points: 10D40..10D65, 10D69..10D85, 10D8E..10D8F
c. TULU-TIGALARI (block: 11380..113FF), new code points: 11380..11389, 1138B, 1138E, 11390..113B5, 113B7..113C0, 113C2, 113C5, 113C7..113CA, 113CC..113D1, 113D4..113D5, 113D7..113D8, 113E1..113E2
d. SUNUWAR (block: 11BC0..11BFF), new code points: 11BC0..11BE1, 11BF0..11BF9
e. KIRAT RAI (block: 16D40..16D7F), new code points: 16D40..16D79

Count: +301
Consensus

Recommendation M69.06 (additions to existing scripts):
WG2 recommends that the Project Editor add the following additions to existing scripts with following new blocks (as appropriate), characters with their glyphs as referenced in document N5181 for future encoding in the standard:
a. Telugu: 0C5C TELUGU ARCHAIC SHRII
b. Kannada: 0CDC KANNADA ARCHAIC SHRII
c. Balinese:
    •   1B4E BALINESE INVERTED CARIK SIKI
    •   1B4F BALINESE INVERTED CARIK PAREREN
    •   1B7F BALINESE PANTI BAWAK
d. Latin Extended-D: A7CB LATIN CAPITAL LETTER RAMS HORN
e. Arabic Extended-C: 10EFC ARABIC COMBINING ALEF OVERLAY
f. Myanmar Extended-C (new block 116D0..116FF):
    •   116D0..116D9 MYANMAR PAO DIGIT ZERO to MYANMAR PAO DIGIT NINE
    •   116DA..116E3 MYANMAR EASTERN PWO KAREN DIGIT ZERO to MYANMAR EASTERN PWO KAREN DIGIT NINE

Count: +27
Consensus

Recommendation M69.07 (Characters from legacy computers and teletext):
WG2 recommends that the Project Editor add the following additions to existing scripts with following new blocks (as appropriate), characters with their glyphs as referenced in document N5181 for future encoding in the standard:
a. Control Pictures:
    •   2427 SYMBOL FOR DELETE SQUARE CHECKER BOARD FORM
    •   2428 SYMBOL FOR DELETE RECTANGULAR CHECKER BOARD FORM
    •   2429 SYMBOL FOR DELETE MEDIUM SHADE FORM
b. Symbols for Legacy Computing Supplement (new block 1CC00..1CEBF):
    •   1CC00..1CCF9 UP-POINTING GO-KART to OUTLINED DIGIT NINE
    •   1CD00..1CEAF BLOCK OCTANT-3 to LOWER HALF RIGHT ONE QUARTER BLOCK
c. Supplementary Arrows-C:
    •   1F8B3..1F8BB DOWNWARDS BLACK ARROW TO BAR to SOUTH WEST ARROW FROM BAR
d. Symbols for Legacy Computing:
    •   1FBCB..1FBEF WHITE CROSS MARK to TOP LEFT JUSTIFIED LOWER RIGHT QUARTER BLACK CIRCLE

Count: +731
Consensus.

Recommendation M69.08 (Characters from Smalltalk):
WG2 recommends that the Project Editor add the following additions to existing scripts with following new blocks (as appropriate), characters with their glyphs as referenced in document N5181 for future encoding in the standard:

a. Symbols for Legacy Computing Supplement (new block 1CC00..1CEBF):
   - 1CEB0..1CEB3 HORIZONTAL ZIGZAG LINE to BLACK RIGHT TRIANGLE CARET
b. Supplementary Arrows-C:
   - 1F8B2 RIGHTWARDS ARROW WITH LOWER HOOK

Count: +5
Consensus

Recommendation M69.09 (Progression of CDAM2):
WG2 recommends that the Project Editor prepare the text of CDAM2 of the 6th edition of the standard, which will include the changes arising from recommendations M69.05 through M69.08 above and forward it to the SC2 secretariat for processing as a CDAM2 ballot. The draft code charts are in document N5181. The target starting date is 2022-08-01.

Count: 301+27+731+5=1064
Consensus

Recommendation M69.10 (Small Seal script):
WG2 recommends that SC2 note the progress made by the experts from China and TCA in document N5188, N5189, N5190, and N5191, and encourages these experts to work with experts from USA and Japan and others to progress towards a consolidated contribution for encoding the script.

Consensus

Recommendation M69.11 (Additions to CDAM2 before next WG2 meeting):
WG2 recognizes that some scripts and additional characters which are under preparation as potential additions to the standard could become mature and will have consensus among WG2 experts to include in the standard. The project editor should be able to add these to the balloted texts, after exercising due diligence. Candidates include, but are not limited to:
   - Small Seal script
   - Gurung Khema script

Consensus

Recommendation M69.12 (Future meetings):
WG2 endorses the following schedule for future meetings:

       WG2 Meeting 70 – 2023-06-19/23 – (Waterloo, Ontario, Canada), backup Aberdeen, Scotland, UK (Co-located with SC2 plenary meeting 28)
       WG2 Meeting 71 – 2024-06 Prague, Czech Republic, backup: Aberdeen, Scotland, UK, or Japan
       IRG Meeting 59 virtual, 2022-10-17/21 (Beijing daytime)
       IRG Meeting 60 virtual, 2023-03-20/24 (Beijing daytime)

Consensus

Appreciation M69.13 (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.

By Acclamation

Appreciation M69.14 (Appreciation to Unicode Consortium):
WG2 thanks the Unicode Consortium and its staff for providing the new web site and for its assistance in code chart productions and other support for WG2.

By Acclamation

Appreciation M69.15 (Appreciation to SC2 secretariat):
WG2 thanks the SC2 secretariat, especially Ayuko Nagasawa, for facilitating this virtual meeting.

By Acclamation

Character count in 6th edition: **143925**
5327 *additions for DAM1 of next edition (end of meeting 69)*
1064 *additions for CDAM2 of next edition (end of meeting 69)*
Character count **150316** *(total allocated till end of meeting 69)*

The following **33** experts accredited (or invited) by **11** national bodies and **4** liaison organizations were present at different times during the meeting.

Name	Accreditation	Affiliation
Qin LU	.IRG Convener	Hong Kong Polytechnic University [retired]
Shuichi TASHIRO	.SC 2 Chairman	Information-technology Promotion Agency
Ayuko NAGASAWA	.SC 2 Secretariat	IPSJ/ITSCJ
Toshiya SUZUKI	.SC34 (liaison)	Hiroshima University
Yifán WÁNG	.SAT (Cat. C Liaison)	SAT Daizōkyō Text Database
Kiyonori NAGASAKI	.SAT (Cat. C Liaison)	SAT Daizōkyō Text Database
Lin Mei WEI	.TCA (Cat. C Liaison)	Chinese Foundation for Digitization Technology
Bear TSENG	.TCA (Cat. C Liaison)	
Yen Ling TSENG	.TCA (Cat. C Liaison)	
Michel SUIGNARD	.WG 2 Convenor; USA	Unicode, Inc.
Karljürgen FEUERHERM	Canada	Wilfrid Laurier University
V.S. (Uma) UMAMAHESWARAN	Canada	Independent
Zhuang CHEN	China	CESI
Jan KUČERA	Czech Republic	Charles University
Reinhold HEUVELMANN	Germany	Deutsche National Bibliothek
Shikar Kumar SARMA	India	Dept. of Information Technology, Gauhati University
K Manikandan	India	
Bayu NERVIADI	Indonesia	Dinas Kebudayaan Yogyakarta
I Gede Gita Purnama Arsa PUTRA	Indonesia	Udayana University
Ilham NURWANSAH	Indonesia	Pengelola Nama Domain Internet Indonesia (PANDI)
Aditya Bayu PERDANA	Indonesia	Pengelola Nama Domain Internet Indonesia (PANDI)
Mayastria YEKTININGTYAS	Indonesia	Transportation and IT BSN
Michael EVERSON	Ireland	Evertype
Tetsuji ORITA	Japan	Tokyo Institute of Technology
Wataru TAKAGI	Japan	Hitachi, Ltd.
Masaru TAKECHI	Japan	NHK Engineering System Inc.
Kyongsok KIM	Korea	Pusan National University
Go Woon KIM	Korea	TTA
Wang Sung YANG	Korea	TPCG
Andrew WEST	UK	Independent
Ken LUNDE	USA	Apple, Inc.
Deborah ANDERSON	USA, UC Berkeley (Cat. C Liaison)	University of California, Berkeley
Peter CONSTABLE	USA, Unicode (Cat. A Liaison)	Microsoft Corp.