

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

ISO/IEC JTC 1/SC 2 N4020R2
ISO/IEC JTC 1/SC 2/WG 2 N 3454R2
Date: 2008-054-0225

Source: WG 2 meeting 52, Redmond, WA, USA; 2008-04-21/25
Title: Resolutions of WG 2 meeting 52
Action: For approval by SC 2 and for information to WG 2
Status: Adopted at meeting 52 of WG 2
Distribution: ISO/IEC JTC 1/SC 2 and WG 2

Experts from Canada, China, Ireland, Japan, Korea (Republic of), Poland, SEI - UC Berkeley (Liaison), Taipei Computer Association (Liaison), UK, Unicode Consortium (Liaison), and USA were present when the following resolutions were adopted (see attached attendance list).

(Note: This revision fixes a miscount in Tai Tham script, a miscount for Meetei script, the resulting cumulative counts, errors in referenced document numbers, and some editorial errors. Also, each referenced document has a hyperlink for ease of reference. -- Uma,)

*Character count 100644 (till end of Amd. 4)
Additions: 5633 in FPDAM5; and 105 in PDAM6
Total count: 106382 (prior to meeting M52)*

RESOLUTION M52.1 (Glyph changes):

Unanimous

WG2 accepts the following:

- a. Change the glyph for 19D1 NEW TAI LUE DIGIT ONE to the glyph shown on the top line in Example 1 in document [N3380](#);
- b. Insert a dashed box around the current dash-looking glyph for 1680 OGHAM SPACE MARK, based on document [N3407](#);
- c. Change the glyphs for 04A8, 04A9, 04BE and 04BF (Abkhasian letters) to those shown in document N3435 to reflect modern Abkhaz orthography preference.

RESOLUTION M52.2 (Disposition of FPDAM5 ballot comments):

Unanimous

WG2 accepts the disposition of ballot comments on FPDAM5 in document [N3475](#) and instructs its editor to prepare the final text of Amendment 5 incorporating the dispositions. The following changes are noted in particular:

- a. Tai Tham script is **rearranged-replaced** based on recommendations (**for 5 removals, 2 additions, several changes to names and shapes and rearrangement of the resultant set**) in document [N3379](#), and addition of two characters at code positions 1A5D and 1A5E based on document [N3384](#);
- b. Removal of twenty Sri Lankan digits encoded at 0DE7 to 0DEF, 0DF5 to 0DFF, for further study;
- c. Removing AVESTAN SEPARATION POINT encoded at 10B38 (recommending using 2E31 WORD SEPARATOR MIDDLE DOT instead);
- d. Correcting the names of characters at the following code positions:
AAB7 to TAI VIET MAI KHIT
11FD to HANGUL JONGSEONG KIYEOK-KHIEUKH
A96E to HANGUL CHOSEONG RIEUL-KHIEUKH
A973 to HANGUL CHOSEONG PIEUP-KHIEUKH;
- e. Remove new text that was added in Amd. 5 referencing Unicode 5.2;
- f. Move collection 309 UNICODE 5.2 out of Amd. 5 to Amd. 6;
- g. Removing discrepancy in glyphs for Hangul;
- h. Replace Unicode 5.1 with UTR 45 as reference for U-source for ideographs;
- i. Replace the current note regarding IVS from being empty to a reference to the Ideographic Variation Database, at <http://www.unicode.org/ivd/data/2007-12-14>;
- j. Update the KX source references: 3ACE (KX source added back), 2304A, 23057, 2305C, 23063, 24799 (KX source added back for these 5 characters), and 26B20 (KX source value changed);
- k. Based on WG2 N3318 update the ARIB Ideograph encodings - with 3 CJK Unified Ideographs located at 9FC4-9FC6 (former FA6D moved to 9FC6), and 3 CJK Compatibility Ideographs located at FA6B-FA6D (former FA6E moved up to FA6D);
- l. Add to 9FC4 an additional source reference: TC-4A76;
- m. Change the annotations for initial, medial and final syllables to:
syllable-initial characters or initial consonants

syllable-peak characters or medial vowels
syllable-final characters or final consonants.

count: -4922 = -4922 from Amd. 5

RESOLUTION M52.3 (Progression of Amendment 5):

Unanimous

WG2 resolves to include the glyph changes from resolution M52.1 into Amendment 5. WG2 instructs its project editor to forward the final text of Amendment 5 along with the disposition of comments document [N3475](#) to the SC2 secretariat for an FDAM ballot. The final set of charts and names lists are in document [N3465](#). The unchanged target starting date for FDAM5 is 2008-07.

*count = net 4922 deletions in Amd. 5
Total: 5633-4922 = 56114 till end of FDAM5*

RESOLUTION M52.4 (Additions to P&P):

Unanimous

WG2 accepts the request to include the list of experts contacted in proposals to WG2, to the Principles and Procedures document proposed in document [N3441](#).

RESOLUTION M52.5 (Principles for Dandas):

Unanimous

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.

RESOLUTION M52.6 (Meetei Mayek script):

Unanimous

Having resolved the question related to Dandas per resolution M52.5 above, WG2 accepts to encode in the standard ~~62-78~~ characters in code positions 1C80 to 1CAE and 1CB0 to 1CCE, in a new block 1C80-1CCF named Meetei Mayek, with their names and glyphs as shown in document [N3470](#).

count: + 7862 = 7862 additions

RESOLUTION M52.7 (Javanese script):

Unanimous

WG2 accepts to encode in the standard 91 characters in code positions A980 to A9CD, A9CF, A9D0 to A9D9, A9DE and A9DF in a new block A980-A9DF named Javanese, with their names and glyphs as shown in document [N3319](#).

count: + 91 = 16943 additions

RESOLUTION M52.8 (Samaritan script):

Unanimous

WG2 accepts to encode in the standard 61 characters in code positions 0800 to 082D and 0830 to 083E, in a new block 0800-083F named Samaritan, with their names and glyphs as shown in document [N3377](#). This is a Right to Left script.

count: + 61 = 23044 additions

RESOLUTION M52.9 (Old Turkic script):

Unanimous

WG2 accepts to encode in the standard 71 characters in code positions 10C00 to 10C46 in a new block 10C00-10C4F named Old Turkic, with their names and glyphs as shown in document [N3357](#). This is a Right to Left script.

count: + 71 = 301285 additions

RESOLUTION M52.10 (Lisu script):

Unanimous

WG2 accepts to encode in the standard 48 characters in code positions A4D0 to A4FF in a new block A4D0-A4FF named Lisu, with their names (removing the word 'OLD' in them) and glyphs as shown in document [N3424](#).

count: + 48 = 34933 additions

RESOLUTION M52.11 (Nushu script):

Unanimous

WG2 accepts to encode in the standard 389 characters in code positions 1B000 to 1B184 in a new block 1B000-1B18F named Nushu, with their names and glyphs as shown in document [N3462](#).

count: +389 = 73822 additions

RESOLUTION M52.12 (Rumi Numeral symbols):

Unanimous

WG2 accepts to encode in the standard 31 characters in code positions 10E60 to 10E7E, in a new block 10E60-10E7F named Rumi Numeral Symbols, with their names and glyphs as shown in document [N3430](#).

count: +31 = 76953 additions

RESOLUTION M52.13 (Myanmar additions for Khamti Shan):

Unanimous

WG2 accepts to encode in the standard 18 characters in code positions 109A to 109D (combining marks) in the Myanmar block, AA60 to AA6D in a new block AA60-AA7F named Myanmar Extended-A, with their names from document [N3436](#) and glyphs as shown in document [N3423](#).

count: +18 = 78774 additions

RESOLUTION M52.14 (Japanese TV Symbols):

Unanimous

WG2 accepts to encode in the standard 186 characters in code positions 2150 to 2152 and 2189 in the Number Forms block, 269E, 269F, 26BD, 26BE, and 26C4 to 26FF in the Miscellaneous Symbols block, 3244 to 324F, and 32FF in the Enclosed CJK Letters and Months block 1F100 to 1F10A, 1F110 to 1F11F, 1F120 to 1F12D, 1F131, 1F13D, 1F13F, 1F142, 1F146, 1F14A to 1F14F, 1F157, 1F15F, 1F179, 1F17B, 1F17C, 1F17F, and 1F18A to 1F18D in a new block 1F100-1F1FF named Enclosed Alphanumeric Supplement, and, 1F200, 1F210 to 1F230, and 1F240 to 1F248 in a new block 1F200-1F2FF named the Enclosed Ideographic Supplement, with their names and glyphs as shown in document [N3469](#).

count: + 186 = 97357 additions

RESOLUTION M52.15 (Kaithi script):

Unanimous

WG2 accepts to encode in the standard 61 characters in code positions 11080 to 110BC, in a new block 11080-110CF named Kaithi, with their names and glyphs as shown in document [N33489](#).

count: + 61 = 103448 additions

RESOLUTION M52.16 (Old South Arabian script):

Unanimous

WG2 accepts to encode in the standard 32 characters in code positions 10A60 to 10A7F, in a new block 10A60-10A7F named Old South Arabian, with their names and glyphs as shown on page 10 of document [N3395](#). This is a Right to Left script.

count: + 32 = 106650 additions

RESOLUTION M52.17 (Tangut script):

Unanimous

WG2 accepts to encode in the standard 5910 characters in code positions 17000 to 18715, in a new block 17000-1871F named Tangut, with their names and glyphs as shown in document [N3297](#), and summarized in document [N3467](#).

count: + 5910 = 697660 additions

RESOLUTION M52.18 (Vedic additions):

Unanimous

WG2 accepts to encode in the standard 59 characters in code positions 1CD0 to 1CD3, 1CD5 to 1CE8, and 1CED to 1CF1 in a new block 1CD0-1CFF named Vedic Extensions, A8E0 to A8F7 in a new block A8E0-A8FF named Devanagari Extended, and 0900, 0955, 0973, 0974, 0979, and 097A in the current Devanagari block, with their glyphs as shown in document [N3383](#) and their names from document [N3456](#).

count: + 59 = 703549 additions

RESOLUTION M52.19 (UCAS additions):

Unanimous

WG2 accepts to encode in the standard 39 characters in code positions 1400, 1677 to 167F in the existing UCAS block, and A9E0 to A9FC in a new block A9E0-A9FF named Unified Canadian Aboriginal Syllabics Extended-A, with their glyphs, and names from document [N3427](#).

count: + 39 = 707458 additions

RESOLUTION M52.20 (Character additions):**Unanimous**

WG2 accepts to encode the following in the standard:

- a. 19DA NEW TAI LUE THAM DIGIT ONE with its glyph shown in the last line of Example 1 in document [N3380](#);
- b. 23E8 DECIMAL EXPONENT SYMBOL with its glyph shown in document [N3386](#), along with the user note 'Algol-60 token', based on the Russian standard GOST 10859-64;
- c. 20B6 LIVRE TOURNOIS SIGN with its glyph (L and T with a stroke across) in Figure 1 in document [N3387](#);
- d. 20B7 SPESMILO SIGN with its glyph (straight version on page 1) from page 1 of document [N3390](#);
- e. 20B8 TENGE SIGN with its glyph as from page 1 of document [N3392](#), and,
- f. The four characters:
1DFD COMBINING ALMOST EQUAL TO BELOW,
2C70 LATIN CAPITAL LETTER TURNED ALPHA,
2C7E LATIN CAPITAL LETTER S WITH SWASH TAIL, and
2C7F LATIN CAPITAL LETTER Z WITH SWASH TAIL
with their glyphs from document [N3447](#).

count: + 9 = 708367 additions

RESOLUTION M52.21 (Tamil named sequences):**Unanimous**

WG2 accepts to include in the standard the 289 Tamil named sequences proposed in document [N3407](#).

RESOLUTION M52.22 (Disposition of PDAM6 ballot comments):**Unanimous**

WG2 accepts the disposition of ballot comments on PDAM6 in document [N3476](#) and instructs its editor to prepare the final text of Amendment 6 incorporating the dispositions, and include all the changes and additions accepted in resolutions M52.6 to M52.21 above.

count: + 0 = net 708367 additions for Amd. 6

RESOLUTION M52.23 (Progression of Amendment 6):**Unanimous**

WG2 instructs its project editor to forward the final text of Amendment 6 along with the disposition of comments document N3476 to the SC2 secretariat for a second PDAM ballot. The final set of charts and names lists are in document [N3466](#). The revised starting dates for this work item are: 2nd PDAM 2008-05, FPDAM 2008-11 and FDAM 2009-06.

Total: 105 + 708367 = 718872 till end of PDAM6.2

RESOLUTION M52.24 (FCD of next edition):**Unanimous**

WG2 instructs its project editor to prepare a working draft of the text for the next edition of the standard updated to include the text of Amendment 6 for review at WG2 meeting M53.

The new schedule ~~ef-is~~ WD 2008-09, FCD: 2008-11 and FDIS: 2009-06.

Total of 11344330 in 2nd edition

RESOLUTION M52.25 (Multi-Letter Jamo characters):**Unanimous**

WG2 rejects the proposal in document [N3458](#) to add 9 multi-letter Jamo characters based on the feedback in document [N3464](#) and discussion at this meeting.

RESOLUTION M52.26 (Multiple column format for Ideograph charts):**Unanimous**

WG2 accepts the dense formats for multiple columns as described in document [N3448](#) as follows:

- a. Format from page 5 for the main CJK Unified Ideographs block
- b. From page 6 for CJK Extension A block
- c. From page 7 for CJK Extension B and Extension C block.

WG2 further requests IRG to use these formats in preparing the multiple column formats in cooperation with the project editor with possible updates if necessary.

RESOLUTION M52.27 (IRG matters)

Unanimous

WG2 requests IRG

- a. to prepare and present plans for their work on 'Annex S revision' and 'IRG Principles and Procedures'
 - b. to study and report on the request regarding Ideographic Description Sequences (IDS) from document [N3459](#) (Unicode Liaison Report) towards inclusion in the standard
 - c. to review and report on request for HKSCS extensions in document [N3445](#)
- for consideration at WG2 meeting 53.

RESOLUTION M52.28 (Roadmap snapshot):

Unanimous

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document [N3398](#)) to the WG2 web site.

RESOLUTION M52.29 (Future meetings):

Unanimous

WG 2 meetings:

- Meeting 53 - 2008-10-13/17, Hong Kong Polytechnic Institute, HKSAR
- Meeting 54 - 2009-04-20/24, Bay Area (pending confirmation), USA; Toronto, Canada (alternate)
- Meeting 55 - 2009-10-26/30, Tokushima, Japan (with SC2 plenary)
- Meeting 56 - Spring 2010, Bay Area (pending confirmation), USA
- Meeting 57 - Fall 2010, Korea (pending confirmation)

RESOLUTION M52.30 (Appreciation to DKUUG for web site support):

By Acclamation

WG 2 thanks DKUUG and its staff, in particular Mr. Kristen Nielsen, for its continued support of the web site for WG 2 document distribution and the e-mail server.

RESOLUTION M52.31 (Appreciation to Host):

By Acclamation

WG 2 thanks the US national body (ANSI), and Microsoft, in particular Ms, Jeanne Sheldon, Messrs. Edward Ye, Murray Sargent, Peter Constable and Michel Suignard, for hosting the meeting, for providing excellent meeting facilities, and their kind hospitality. WG2 further extends its appreciation to Mr. and Mrs. Michel Suignard and the Unicode Consortium for hosting the social event.

*Character count 100644 (till end of Amd. 4)
Additions: 56114 in FDAM5; and 718872 in PDAM6.2
Total count: 11344339 (after meeting M52)*

Attendance List

The following **37** attendees representing **8** national bodies, **3** liaison organizations, including **2** invited experts were present at different times during the meeting.

Name	Representing	Affiliation
Mike KSAR	.Convener, USA	Independent
Jeanne SHELDON	.Host	Microsoft Corporation
Laurentiu IANCU	.Invited Expert	Microsoft Corporation
Murray SARGENT	.Invited Expert	Microsoft Corporation
LU Qin	.IRG Rapporteur	Hong Kong Polytechnic University
Yoshiki MIKAMI	.ISO 2375 RA	Nagaoka University of Technology
Tatsuo KOBAYASHI	.SC2 Chair	Justsystems Corporation
Toshiko KIMURA	.SC2 Secretary	ITSCJ
Shih-Shyeng TSENG	.TCA - Liaison	Academia Sinica
Wei LIN-MEI	.TCA - Liaison	Chinese Foundation for Digitization Technology
Alain LABONTÉ	Canada; Editor 14651	Independent
V. S. (Uma) UMAMAHESWARAN	Canada; Recording Secretary	IBM Canada Ltd.
CHEN Zhuang	China	Chinese Electronics Standardization Institute
HUANG Weihua	China	Bijie University
SUN Bojun	China	Institute of Ethnology and Anthropology, Academy of Social Sciences
WU Xuejun	China	Bijie University
Wushour SILAMU	China	Xinjiang University
XIONG Yuyou	China	Yunnan Minority Language Committee
YAN Xiang	China	Ethnic Institute of Xishuang Banna
YU Kanglong	China	Xishuangbanna Newspaper Company
ZHAO Liming	China	Núshu Institute, Tsinghua University
Michael EVERSON	Ireland; Contributing Editor	Evertime
Kazuhito OHMAKI	Japan	National Institute of Advanced Industrial Science and Technology
Masahiro SEKIGUCHI	Japan	Fujitsu Limited
Satoshi YAMAMOTO	Japan	Hitachi Ltd.
Dae Hyuk AHN	Korea (Republic of)	Microsoft Korea
Jinseok BAE	Korea (Republic of)	Korean Agency for Technology and Standards
KIM Kyongsok	Korea (Republic of)	Pusan National University
Mi Young KANG	Korea (Republic of)	National Institute of Korean Language
Namho CHO	Korea (Republic of)	National Institute of Korean Language
Elzbieta BROMA- WRZESIEŃ	Poland	Telekomunikacja Polska S.A.
Martin Hosken	UK	SIL International
Richard S. COOK	USA	University of California, Berkeley
Deborah ANDERSON	USA, .SEI, UC Berkeley - Liaison	Dept. of Linguistics, UC Berkeley
Ken WHISTLER	USA, Contributing Editor	Sybase, Inc.
Michel SUIGNARD	USA; Project Editor	Microsoft Corporation
Peter CONSTABLE	USA; The Unicode Consortium - Liaison	Microsoft Corporation