

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

**ISO/IEC JTC 1/SC 2 N 4040R  
ISO/IEC JTC 1/SC 2/WG 2 N 3554R  
Date: 2008-10-20**

**Source:** WG 2 meeting 53, Hong Kong; 2008-10-13/17  
**Title:** Resolutions of WG 2 meeting 53  
**Action:** For approval by SC 2 and for information to WG 2  
**Status:** Adopted at meeting 53 of WG 2  
**Distribution:** ISO/IEC JTC 1/SC 2 and WG 2

*(Changes in this revision: Corrected duplicate resolution number M53.18 for Arabic Pedagogical Symbols to M53.19. Incremented the numbering of M53.19 to M53.34 by 1 to M53.20 to M53.35 respectively. Corrected typo 0D29 MALAYALM LETTER NNNA to 0D29 MALAYALAM LETTER NNNA in (renumbered) resolution 53.24c. Updated references to relevant resolution numbers in (renumbered) resolutions M53.25 and M53.28. Changed format for the informative counts in (renumbered) resolutions M53.19 to M53.24 for Amd.7 to be consistent with earlier entries for Amd. 6. --- Umamaheswaran, Recording Secretary)*

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

*Character count 106255 (till end of FDAM 5)  
Additions: 7188 in PDAM6.2  
Total count: 113443 (before meeting 53)*

**RESOLUTION M53.01 (Nushu script):**

**Unanimous**

WG2 resolves to remove the Nushu script currently encoded in Amendment 6.2 for further study. Chinese national body is invited to provide a revised contribution including considerations for Nushu related comments in the draft disposition of PDAM 6.2 ballot comments in document [N3516](#).  
*count: -389 = 389 deletions in Amd. 6*

**RESOLUTION M53.02 (Meetei Mayek script):**

**Unanimous**

WG2 resolves to remove the current encoding of Meetei Mayek script and replace it as follows:

- Remove the current Meetei Mayek block 1C80 to 1CCF and its contents.
- Create a new block ABC0 to ABFF named Meetei Mayek and populate it with a subset of 55 Meetei Mayek characters, and an additional character MEETEI MAYEK I LONSUM, for a total of 56 characters in code positions ABC0 to ABED and ABF0 to ABF9 (with glyphs, names and code positions shown in document [N3473](#)), and,
- Relegate the remaining subset of 23 (historical) Meetei Mayek characters (listed in document [N3478](#)) for further study.

*count: -78 + 56 = 411 deletions in Amd. 6*

**RESOLUTION M53.03 (Vedic extensions):**

**Unanimous**

WG2 accepts the following changes in encoding of Vedic extensions in Amendment 6:

- Add the following 9 characters with glyphs as shown in document [N3488](#)  
094E DEVANAGARI VOWEL SIGN PRISHTHAMATRA E  
1CD4 VEDIC SIGN YAJURVEDIC KASHMIRI SVARITA  
1CE9 VEDIC SIGN ANUSVARA ANTARGOMUKHA  
1CEA VEDIC SIGN ANUSVARA BAHIRGOMUKHA  
1CEB VEDIC SIGN ANUSVARA VAMAGOMUKHA  
1CEC VEDIC SIGN ANUSVARA VAMAGOMUKHA WITH TAIL  
1CF1 VEDIC SIGN ANUSVARA UBHAYATO MUKHA  
A8F9 DEVANAGARI GAP FILLER  
A8FB DEVANAGARI HEADSTROKE
- The following characters are moved:  
0973 DEVANAGARI SIGN PUSHPIKA in Devanagari block is moved to A8F8 in Devanagari Extended block  
0974 DEVANAGARI CARET in Devanagari block is moved to A8FA in Devanagari Extended block  
1CF1 VEDIC SIGN ARDHAVISARGA is moved to 1CF2 in the Vedic Extension block.

*count: +9 = 402 deletions in Amd. 6*

**RESOLUTION M53.04 (Myanmar Extended-A for Khamti Shan):****Unanimous**

WG2 accepts the 13 additions, 12 moves without renaming, and 2 moves with renaming, of currently encoded characters in Myanmar Extended-A block (detailed in the US ballot comment T.4 in document [N3542](#)), with the glyphs and rearranged charts as shown in document [N3492](#).

*count: +13= 389 deletions in Amd. 6***RESOLUTION M53.05 (Old South Arabian):****Unanimous**

WG2 accepts the renaming of all the Old South Arabian characters using the North Western Semitic names, showing the Arabic-based names as aliases, and moving the Latin transliterations as annotations – as shown in disposition of comments for Ireland T10 in document [N3542](#):

*count: +0 = 389 deletions in Amd. 6***RESOLUTION M53.06 (Kaithi punctuation marks):****Unanimous**

WG2 accepts the addition of the following Kaithi characters with their glyphs as shown in document [N3546](#):

110BD KAITHI NUMBER SIGN  
110C0 KAITHI DANDA  
110C1 KAITHI DOUBLE DANDA

*count: +3 = 386 deletions in Amd. 6***RESOLUTION M53.07 (Additions from HKSCS):****Unanimous**

WG2 accepts to encode 5 ideographs from post HKSCS-2004 at positions 9FC7: H-87C2, 9FC8: H-87D2, 9FC9: H-87D6, 9FCA: H-87DA and 9FCB: H-87DF in the existing CJK Unified Ideographs block, with their glyphs, and source references from document [N3513](#).

*count: +5 = 381 deletions in Amd. 6***RESOLUTION M53.08 (Soccer ball symbol):****Unanimous**

WG2 accepts to:

- move characters at 26BD and 26BE down by one position to 26BE and 26BF respectively, and
- to encode 26BD SOCCER BALL with its glyph from document [N3514](#).

*count: +1 = 380 deletions in Amd. 6***RESOLUTION M53.09 (Old Turkic):****Unanimous**

WG2 accepts the following changes to Old Turkic encoding:

- Insert a new character and move down the rest by one:  
10C1C – OLD TURKIC LETTER ORKHON OEK
- Rename (the moved) OLD TURKIC LETTER ORKHON OK to  
10C1D - OLD TURKIC LETTER YENISEI OEK
- Rename (the moved) OLD TURKIC LETTER YENISEI ENG to  
10C2E - OLD TURKIC LETTER YENISEI AENG
- Insert a new character moving the rest down by one  
10C27 – OLD TURKIC LETTER YENISEI ENT

with the glyphs and rearranged charts as shown in document [N3546](#).

*count: +2 = 378 deletions in Amd. 6***RESOLUTION M53.10 (Tangut):****Unanimous**

WG2 accepts the ad hoc report on Tangut in document [N3541](#), and

- resolves to remove encoding of Tangut from Amendment 6
- to add it to Amendment 7 (to be started at this meeting), and
- invites experts from the national bodies of China, Ireland, UK, USA and any other interested experts to work together and propose a documented common position on Tangut for the next WG2 meeting.

*count: -5910 = 6288 deletions in Amd. 6  
count: +5910 = 5910 additions in Amd. 7*

**RESOLUTION M53.11 (Cyrillic letters for Abkhazian):****Unanimous**

WG2 accepts to encode the two characters:

0524 CYRILLIC CAPITAL LETTER PE WITH DESCENDER

0525 CYRILLIC SMALL LETTER PE WITH DESCENDER

in the Cyrillic Supplement block with their glyphs from document [N3435](#).*count: +2 = 6286 deletions- Amd. 6***RESOLUTION M53.12 (Tai Lue):****Unanimous**

WG2 accepts to encode the two characters:

19AA NEW TAI LUE LETTER HIGH SUA

19AB NEW TAI LUE LETTER LOW SUA

with their glyphs as shown in document [N3546](#).*count: +2 = 6284 deletions in Amd. 6***RESOLUTION M53.13 (Renaming of characters):****Unanimous**

WG2 accepts to rename:

a. Several symbols as detailed in document [N3542](#) for US comment T.6.b. Four Tibetan characters as detailed in document [N3542](#) for Irish comment T5.*count: +0 = 6284 deletions in Amd. 6***RESOLUTION M53.14 (UCAS changes):****Unanimous**

WG2 accepts to change the encoding of UCAS in Amendment 6 as follows:

- Create a new block named Unified Canadian Aboriginal Syllabics Extended in the range 18B0 to 18FF
- Move the current 29 UCAS characters encoded in A9E0 to A9FC to the range 18E0 to 18FC.
- Delete the block named Unified (corrected from United) Canadian Aboriginal Syllabics Extended-A in the range A9E0 to A9FF.

See document [N3546](#).*count: +0 = 6284 deletions in Amd. 6***RESOLUTION M53.15 (Modern Bamum):****Unanimous**

WG2 accepts to encode in a new block named Bamum in the range A6A0 to A6FF, and populate it with 88 characters with their code positions, names and glyphs as shown in document [N3522](#). WG2 notes that this script had passed one round of balloting as part of Amd. 5 earlier, but was held back for further input from the user community.

*count: + 88 = 6196 deletions in Amd. 6***RESOLUTION M53.16 (Disposition of PDAM6.2 ballot comments):****Unanimous**

WG2 accepts the disposition of ballot comments on PDAM6 in document [N3542](#) and instructs its editor to prepare the final text of Amendment 6 incorporating the dispositions, including all the changes and additions accepted in resolutions M53.01 to M53.15 above.

*count: = net 6196 deletions in Amd. 6***RESOLUTION M53.17 (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 [N3542](#) to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in document [N3546](#). The unchanged target starting dates are FPDAM 2008-11 and FDAM 2009-06.

*net: 7188-6196 = 992 additions in FPDAM6  
Total: 106255+992=107247 till end of FPDAM6***RESOLUTION M53.18 (JIS X0213 named sequences):****Unanimous**

WG2 accepts to include in the standard the 23 JIS X0213 named sequences proposed in document [N3529](#), with the name RISING SYMBOL replaced with MODIFIER LETTER EXTRA-LOW EXTRA-HIGH CONTOUR TONE BAR.

**RESOLUTION M53.19 (Arabic pedagogical symbols):****Unanimous**

WG2 accepts to encode in the standard 16 Arabic pedagogical symbols (requested in document [N3460](#)) at code positions FBB2 to FBC1 in the Arabic Presentation Forms-A block, with their glyphs, names and code positions as shown in document [N3547](#).

*count: + 16 = 5926 additions in Amd. 7***RESOLUTION M53.20 (Mandaic script):****Unanimous**

WG2 accepts to encode in the standard 29 characters (a subset of the proposal in document [N3485](#)) in code positions 0840 to 085B and 085E in a new block 0840 to 085F named Mandaic, with their names, code positions and glyphs as shown in document [N3547](#).

*count: +29 = 5955 additions in Amd. 7***RESOLUTION M53.21 (Batak script):****Unanimous**

WG2 accepts to encode in the standard 58 characters (proposed in document [N3320](#)) in code positions 1BC0 to 1BF3 and 1BFA to 1BFF in a new block 1BC0 to 1BFF named Batak, with their names, code positions and glyphs as shown in document [N3547](#).

*count: +58 = 6013 additions in Amd. 7***RESOLUTION M53.22 (Brahmi script):****Unanimous**

WG2 accepts to encode in the standard 108 characters in code positions 11000 to 1104D and 11052 to 1106F, in a new block 11000 to 1107F in the SMP, named Brahmi, with their names, code positions and glyphs as shown in document [N3490](#).

*count: + 108 = 6121 additions in Amd. 7***RESOLUTION M53.23 (More UCAS characters):****Unanimous**

WG2 accepts to encode in the standard 41 characters in code positions 18B0 to 18D1, 18D3 to 18D7, and 18D9 to 18DA in UCAS Extended block, with their names, code positions and glyphs as shown in document [N3507](#).

*Count: + 41 = 6162 additions in Amd. 7***RESOLUTION M53.24 (Miscellaneous character additions):****Unanimous**

WG2 accepts to encode in the standard the following:

- a. four characters with their glyphs as shown in document [N3481](#):  
A78D LATIN CAPITAL LETTER TURNED H  
A78E LATIN SMALL LETTER L WITH RETROFLEX HOOK AND BELT  
0526 CYRILLIC CAPITAL LETTER SHHA WITH DESCENDER  
0527 CYRILLIC SMALL LETTER SHHA WITH DESCENDER
- b. two Tifinagh characters with their glyphs as shown in document [N3482](#):  
2D70 TIFINAGH SEPARATOR MARK  
2D7F TIFINAGH CONSONANT JOINER
- c. two Malayalam characters with their glyphs as shown in document [N3494](#):  
0D29 MALAYALAM LETTER NNNA  
0D3A MALAYALAM LETTER TTTA
- d. six Oriya fractions with their glyphs as shown in document [N3471](#):  
0B72 ORIYA FRACTION ONE QUARTER  
0B73 ORIYA FRACTION ONE HALF  
0B74 ORIYA FRACTION THREE QUARTERS  
0B75 ORIYA FRACTION ONE SIXTEENTH  
0B76 ORIYA FRACTION ONE EIGHTH  
0B77 ORIYA FRACTION THREE SIXTEENTHS
- e. 3097 HIRAGANA LETTER YE with its glyph as shown in document [N3388](#) (relegating KATAKANA LETTER ORIGINAL E for further study).

*count: + 15 = 6177 additions in Amd. 7*

**RESOLUTION M53.25 (Amendment 7 – subdivision and PDAM text):**

**Unanimous**

WG2 instructs its project editor and convener to prepare a project sub division proposal (see document [N3545](#)) and PDAM text based on resolutions M53.10 and M53.18 to M53.24 above, and forward them to the SC2 secretariat for ballot. The proposed start dates for the progression of this work item are: PDAM 2008-11, FPDAM 2009-06, and FDAM 2009-11.

*count: net 6177 additions in PDAM7  
Total: 107247 + 6177 = 113424 till end of PDAM7*

**RESOLUTION M53.26 (Co-location of chart and nameslist):**

**Unanimous**

In response to comment E.2 from Japan (see document [N3542](#)) WG2 asserts that the project editor has the choice of formatting a code chart and its associated nameslist on the same page where it is considered to be space-saving and convenient.

**RESOLUTION M53.27 (Multiple-column formats for CJK in next edition):**

**Korea (RoK) - Abstain  
Canada, China, Finland, Ireland, Japan, Poland, UK and USA - Accept**

WG2 notes that the production of multiple-column format for CJK charts is dependent on timely availability of the requisite fonts from IRG member bodies. WG2 also takes note of a similar dependency on availability of fonts for the Unicode standard described in document [N3524](#). IRG member bodies are requested to send the requisite fonts for non-CJK Extension B charts before 2008-12-31 and for CJK Extension B charts before 2009-10-15, to the project editor. The IRG convener is instructed to seek the cooperation of the IRG member bodies to meet the above dates.

**RESOLUTION M53.28 (Working Draft of next edition):**

**Unanimous**

WG2 instructs its project editor to prepare an updated Working Draft for the next edition of the standard by 2009-03, based on documents [N3508](#), [N3509](#) and [N3510](#), reflecting the feedback from this meeting, and changes resulting from resolutions M53.17 on Amendment 6, M53.25 on Amendment 7 and M53.27 on multiple-column formats for CJK, above. WG2 notes that the scope of the next edition is extended to include the additions in Amendment 7. The updated start dates for the next edition of standard are: FCD: 2009-05 and FDIS: 2009-11.

*Total of 113424 in 2nd edition*

**RESOLUTION M53.29 (Roadmap snapshot):**

**Unanimous**

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document [N3518](#)) to the WG2 web site and communicate the same to SC2 secretariat. The roadmap ad hoc is to remove Old Hanzi, and add Bronze (about 4000) and Small Seal (about 10000) in the Tertiary Ideographic Plane for the next version of the roadmap.

**RESOLUTION M53.30 (Access to CJK Ext. B glyphs):**

**Unanimous**

The IRG is requested to make the CJK Ext. B glyphs from the current single-column format available from the IRG website to facilitate their future referencing, after the multiple-column format for CJK Extension B is published.

**RESOLUTION M53.31 (IVSs for compatibility ideographs):**

**Unanimous**

The IRG, and all national bodies and liaison organizations, are requested to review and provide feedback on document [N3525](#) on using IVSs as the solution for representing additional compatibility ideographs.

**RESOLUTION M53.32 (Japanese compatibility ideographs):**

**Unanimous**

The IRG, and all national bodies and liaison organizations, are requested to review and provide feedback on the request for additional compatibility ideographs in document [N3530](#) from Japan.

**RESOLUTION M53.33 (Future meetings):**

**Unanimous**

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

WG 2 meetings:

Meeting 54 - 2009-04-20/24, Dublin, Ireland (host: Dublin City University)

Meeting 55 - 2009-10-26/30, Tokushima, Japan (with SC2 plenary)

Meeting 56 - 2010-04-19/23, Mountain View, CA, USA (pending confirmation); Canada (backup).

Meeting 57 - Fall 2010, Korea (Republic of) (pending confirmation of date and location)

Meeting 58 - Spring 2011, Finland (pending confirmation) (with SC2 plenary)

Meeting 59 – Fall 2011, Mountain View, CA, USA (pending confirmation)

IRG meetings:

IRG 31 in Kunming, China, 2008-11-10/14

**RESOLUTION M53.34 (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 M53.35 (Appreciation to Host):**

**By Acclamation**

WG 2 thanks the Hong Kong Polytechnic University, in particular Dr. Lu Qin, Professor David Zhang, Chiu Tin Shing, Grandy Fu, and Amy Tsang for hosting the meeting, for providing excellent meeting facilities, and their kind hospitality.

*Character count 106255 (till end of FDAM 5)  
Addition of 992 in FPDAM6; and addition of 6177 in PDAM7  
Total count: 113424 (after meeting M53)*

**JTC1/SC2/WG2 Meeting 53; Hong Kong Polytechnic University, HKSAR; 2008-10-11/15  
Attendance List**

The following **39** attendees representing **11** national bodies, **2** liaison organizations, including **1** invited expert were present at different times during the meeting.

| <b>Name</b>                  | <b>Representing</b>                | <b>Affiliation</b>  |
|------------------------------|------------------------------------|---|
| Mike KSAR                    | .Convener, USA                     | Independent   |
| CHIU Tin Shing               | .Host                              | Hong Kong Polytechnic University  |
| David ZHANG                  | .Host                              | Hong Kong Polytechnic University  |
| LU Qin                       | .Host, IRG Rapporteur              | Hong Kong Polytechnic University  |
| Adrian Cheuk                 | .Invited Expert, China             | SIL International   |
| Tatsuo KOBAYASHI             | .SC2 Chair                         | Justsystems Corporation   |
| Bear S. TSENG                | .TCA – Liaison                     | Academia Sinica   |
| WEI Lin-Mei                  | .TCA – Liaison                     | Chinese Foundation for Digitization Technology  |
| Alain LABONTÉ                | Canada; Editor 14651               | Independent   |
| V. S. (Uma)<br>UMAMAHESWARAN | Canada; Recording<br>Secretary     | IBM Canada Ltd.   |
| CHEN Shuangxin               | China                              | Chinese Dept. of Heber University, Baoding  |
| CHEN Zhuang                  | China                              | Chinese Electronics Standardization Institute   |
| HE Lifeng                    | China                              | Office for Yunnan Minority Language Committee   |
| LI Jingsheng                 | China                              | Lijiang Dongba Culture Research Institute   |
| LI Xulian                    | China                              | State Ethnic Affairs Commission   |
| LU Xiaoqing                  | China                              | Beijing Founder Electronics Co. Ltd.  |
| Maimaiti TUERDI              | China                              | Xinjiang Uighur Autonomous Region   |
| TAI Chung Pui                | China                              | Institute of Ethnology, CASS  |
| Tuerxun BAKE                 | China                              | Xinjiang Uighur Autonomous Region   |
| WANG Lijun                   | China                              | Beijing Normal University   |
| WANG Xiaoming                | China                              | Institute of Applied Linguistics, Ministry of Education                                   |
| YU Kanglong                  | China                              | Xishuang Banna Daily  |
| ZHAO Shihong                 | China                              | Lijiang Dongba Culture Research Institute   |
| Erkki Kolehmainen            | Finland                            | Independent   |
| Tero Aalto                   | Finland                            | CSC – IT Center for Science   |
| AU Yung-ye, Bryan            | Hong Kong, China                   | Official Languages Division, Government of HKSAR  |
| CHENG Wai-hong, Peter        | Hong Kong, China                   | Official Languages Division, Government of HKSAR  |
| YAN Kwing Fai, Retarkgo      | Hong Kong, China                   | Office of the Government Chief Information Officer,<br>Government of HKSAR                |
| Swaran Lata                  | India                              | Dept. of Information Technology, Ministry of<br>Communications and Information Technology |
| Michael EVERSON              | Ireland; Contributing<br>Editor    | Everttype   |
| Masahiro SEKIGUCHI           | Japan                              | Fujitsu Limited   |
| Dae Hyuk AHN                 | Korea (Republic of)                | Microsoft Korea   |
| Jinseok BAE                  | Korea (Republic of)                | Korean Agency for Technology and Standards  |
| KANG Mi-young                | Korea (Republic of)                | National Institute of the Korean Language   |
| KIM Kyongsok                 | Korea (Republic of)                | Busan National University   |
| Elżbieta BROMA-<br>WRZESIEN  | Poland                             | Telekomunikacja Polska S.A.   |
| John KNIGHTLEY               | UK                                 | Independent   |
| Michel SUIGNARD              | USA; Project Editor                | Unicode Consortium  |
| Deborah ANDERSON             | USA; SEI, UC Berkeley –<br>Liaison | Dept. of Linguistics, UC Berkeley   |