

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

**ISO/IEC JTC 1/SC 2 N 3897  
ISO/IEC JTC 1/SC 2/WG 2 N 3154  
Date: 2006-09-29**

**Source:** WG 2 meeting 49,  
AIST, Akihabara, Tokyo, Japan; 2006-09-25/29  
**Title:** Resolutions of WG 2 meeting 49  
**Action:** For approval by SC 2 and for information to WG 2  
**Status:** Adopted at meeting 49 of WG 2  
**Distribution:** ISO/IEC JTC 1/SC 2 and WG 2

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

*Character count 99016 (till end of Amd. 2  
Character count 100020 (till end of PDAM3.2; 1004 added)*

**RESOLUTION M49.1 (disposition of PDAM3.2 ballot comments):**

**Unanimous**

WG2 accepts the disposition of ballot comments on PDAM3.2 in document N3165 and instructs its editor to prepare the final text of Amendment 3 incorporating the dispositions. The following changes are noted in particular:

- a. Add 1035 MYANMAR VOWEL SIGN E ABOVE in Myanmar block, with glyph shown in document N3115.
- b. Change the name for (the 10000th character in ISO/IEC 10646): 0D3D MALAYALAM PRASLESHAM (avagraha) to 0D3D MALAYALAM SIGN AVAGRAHA (praslesham).
- c. Change the glyph for 0373 GREEK SMALL LETTER ARCHAIC SAMPI to the one shown on the right under Irish comment E.1 in document N3145.
- d. Change the glyphs for the range of code positions A722 to A725 as shown in Irish comment E.3 in document N3145.
- e. Add annotations "da nying yik go dun ma" and "da nying yik go kab ma" to the names for two Tibetan characters 0FD3 and 0FD4 respectively.
- f. Correct the names for the named sequences - changing CAPITAL to SMALL - for:  
<012F, 0307, 0301> LATIN SMALL LETTER I WITH OGONEK AND DOT ABOVE AND ACUTE  
<012F, 0307, 0303> LATIN SMALL LETTER I WITH OGONEK AND DOT ABOVE AND TILDE.
- g. Correct the glyphs for  
0485 COMBINING CYRILLIC DASIA PNEUMATA and  
0486 COMBINING CYRILLIC PSILI PNEUMATA  
based on document N3118.
- h. Correct the glyphs for  
0340 COMBINING GRAVE TONE MARK and  
0341 COMBINING ACUTE TONE MARK  
to be the same as their canonical equivalent characters at 0300 and 0301 respectively.

*count 1004+1=1005 in Amd. 3*

**RESOLUTION M49.2 (Telugu additions):**

**Unanimous**

With reference to documents N3126, N3156 and item 10 in document N3129, WG2 accepts to encode in the standard 14 additional characters in the Telugu block, at code positions - 0C3D, 0C58, 0C59, 0C62, 0C63, 0C71, and the range 0C78 to 0C7F, with their names and glyphs as shown in document N3116.

*count 1005+14=1019 in Amd. 3*

**RESOLUTION M49.3 (Greek and Latin additions):**

**Unanimous**

With reference to document N3122 and item 11 in document N3129, WG2 accepts to encode in the standard 1 Greek and 16 Latin characters, with their names, code positions and glyphs as shown in document N3122.

*count 1019+17=1036 in Amd. 3*

**RESOLUTION M49.4 (Tibetan characters for Balti):**

**Accept: Canada, Finland, Ireland, Japan, Korea (Republic of), Poland, UK and USA**  
**Abstain: China**

With reference to document N2985, WG2 accepts to encode in the standard 2 additional characters in the Tibetan block:

0F6B TIBETAN LETTER KKA, and

0F6C TIBETAN LETTER RRA

with their glyphs as shown in document N2985.

*count 1036+2=1038 in Amd. 3*

**RESOLUTION M49.5 (Miscellaneous):**

**Unanimous**

WG2 accepts to encode in the standard the following 3 additional characters:

- a. A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT with its glyph as shown in document N3140.
- b. 0971 DEVANAGARI SIGN HIGH SPACING DOT with its glyph as shown in document N3125.
- c. 0BD0 TAMIL OM with its glyph as shown in document N3119.

*count 1038+3=1041 in Amd. 3*

**RESOLUTION M49.6 (Astrological symbols):**

**Unanimous**

With reference to document N3110 and item 4 in document N3129, WG2 accepts to encode in the standard 10 Astrological symbols at code positions 26B3 to 26BC in the Miscellaneous Symbols block with their names and glyphs as shown in document N3110.

*count 1041+10=1051 in Amd. 3*

**RESOLUTION M49.7 (Arabic Math symbols):**

**Unanimous**

With reference to document N3086 and item 3 in document N3129, WG2 accepts to encode:

- a. 21 characters at code positions 2B30 to 2B44 in the Miscellaneous Symbols and Arrows block,
  - b. 5 characters at code positions 0606 to 060A in the Arabic block, and
  - c. 269D OUTLINED WHITE STAR in the Miscellaneous Symbols block,
- with their names and glyphs as shown in document N3086.

*count 1051+27=1078 in Amd. 3*

**RESOLUTION M49.8 (Arabic characters for Khovar, Torwali and Burushaski):**

**Unanimous**

With reference to document N3117 and item 2 in document N3129, WG2 accepts to encode 16 additional characters at code positions 076E to 077D in the Arabic Supplement block with their names as shown in document N3129 and their glyphs as shown in document N3117.

*count 1078+16=1094 in Amd. 3*

**RESOLUTION M49.9 (Additional Updates to Amd. 3):**

**Unanimous**

WG2 accepts to include in the standard the changes proposed by the project editor in document N3148 for the following items:

- a. Usage of the term 'composite characters',
- b. Referencing latest version of Unicode in clause 20.4,
- c. Rewording of Note 1 under clause 25,
- d. Renumbering clauses regarding Name Uniqueness, and
- e. Synchronizing the clause on Mirrored Characters with the Unicode Standard.

**RESOLUTION M49.10 (Corrections to add to Amd. 3):**

**Unanimous**

With reference to the two errors related to new JIS collections reported in document N3166, WG2 accepts for inclusion in the standard the corrections proposed in that document.

**RESOLUTION M49.11 (Progression of Amendment 3):**

**Unanimous**

WG2 resolves to include all the items accepted for inclusion in the standard noted in resolutions M49.1 to M49.10 above, along with the changes arising out of the disposition of comments, into Amendment 3. WG2 instructs its project editor to forward the final text of Amendment 3 along with the disposition of comments document N3165 to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in document N3173. The revised starting dates for this work item are: FPDAM 2006-11-30, and FDAM 2007-06.

*Character count in the standard would be 99016+1094=100110 (till end of FPDAM3)*

**RESOLUTION M49.12 (Updates for Amendment 4):**

**Unanimous**

WG2 accepts to amend the standard based on the changes proposed by the project editor in document N3148 for the following items:

- a. Fixing errors in CJK Source References based on feedback from IRG in document N3132, and
- b. Text towards deprecating Levels 1 and 2 in the standard.

**RESOLUTION M49.13 (Old Cyrillic):**

**Accept: Canada, China, Finland, Japan, Korea (Republic of), Poland, UK and USA**

**Abstain: Ireland**

With reference to document N3097 and item 1 in document N3129, WG2 accepts to encode in the standard 22 combining characters, at code positions 2DE0 to 2DF5 in a new block 2DE0 -- 2DFF named Cyrillic Extended-A, with their names from document N3129 and glyphs from document N3097.

*count 0+22=22 in Amd. 4*

**RESOLUTION M49.14 (Game symbols):**

**Unanimous**

With reference to document N3171, WG2 accepts to encode in the standard the following:

- a. 44 Mahjong Tiles symbols in a new block 1F000 -- 1F02F named Mahjong Tiles, with the code positions, character names and glyphs as proposed in document N3171,
- b. 100 Domino Tiles symbols in a new block 1F030 -- 1F09F named Domino Tiles, and
- c. 4 Draughts symbols in the Miscellaneous Symbols block

with their code positions, character names and glyphs as proposed in document N3171.

*count:22+148=170 in Amd.4*

**RESOLUTION M49.15 (Myanmar additions for Shan and Palaung):**

**Unanimous**

With reference to document N3143, WG2 accepts to encode in the standard 23 additional Myanmar characters, some of which are combining characters, at code positions 1022, and 1075 to 108A, with their glyphs and character names as proposed in document N3143.

*count: 170+23=193 in Amd.4*

**RESOLUTION M49.16 (Myanmar additions for Karen and Kayah):**

**Unanimous**

With reference to document N3142, WG2 accepts to encode in the standard 16 additional Myanmar characters, some of which are combining characters, for Karen and Kayah languages, at code positions 1065 to 1074, with their glyphs and character names as proposed in document N3142.

*count: 193+16=209 in Amd.4*

**RESOLUTION M49.17 (Lanna script)**

**Accept: Canada, China, Finland, Ireland, Japan, Korea (Republic of), Poland, and UK**  
**Abstain: USA**

With reference to document N3121 and the ad hoc report in document N3169 on the Lanna script, WG2 accepts to encode in the standard the 127 characters, several of which are combining characters, with their names, glyphs, and code positions as proposed in document N3121 in a new block 1A20 -- 1AAF named Lanna.

*count: 209+127=336 in Amd.4*

**RESOLUTION M49.18 (Cham script):**

**Unanimous**

With reference to document N3120 on Cham script, WG2 accepts to encode in the standard the 83 characters, several of which are combining characters, with their names, glyphs, and code positions as proposed in document N3120 in a new block AA00 -- AA5F named Cham.

*count: 336+83=419 in Amd.4*

**RESOLUTION M49.19 (CJK Unified Ideographs Extension C):**

**Unanimous**

With reference to document N3134, WG2 accepts to encode in the standard the 4219 CJK unified ideographs in a new block 2A700 -- 2B77F named CJK Unified Ideographs Extension C, at code positions 2A700 to 2B77A, in a multiple-column format, similar to the current format for CJK Unified Ideographs, with the glyphs from document N3134.

*count: 419+4219=4638 in Amd.4*

**RESOLUTION M49.20 (Ancient Roman symbols):**

**Unanimous**

With reference to document N3138 and item 9 in document N3129, WG2 accepts to encode in the standard 11 characters at code positions 10190 to 1019A in a new block 10190 -- 101CF named Ancient Symbols, with their names and glyphs as shown in document N3138.

*count: 4638+11=4649 in Amd.4*

**RESOLUTION M49.21 (Malayalam Chillus):**

**Unanimous**

With reference to document N3126 and item 12 in document N3129, WG2 accepts to encode in the standard the 6 additional characters to the Malayalam block, with their code positions and names as shown in document N3129 and glyphs as shown in document N3126,

*count: 4649+6=4655 in Amd.4*

**RESOLUTION M49.22 (Amendment 4 – subdivision and PDAM text):**

**Unanimous**

WG2 instructs its editor to prepare a project sub division proposal and PDAM text based on resolutions M49.12 to M49.21 above, and forward them to the SC2 secretariat for ballot. The proposed completion dates for the progression of this work item are: PDAM 2006-12-15, FPDAM 2007-06-15, and FDAM 2007-12.

*Character count in the standard would be 100110+4655=104765 (through to the end of PDAM4)*

**RESOLUTION M49.23 (Hangul proposals):**

**Unanimous**

With reference to documents N3168 and N3172 on old Hangul Jamos, WG2 encourages the ad hoc on Hangul Syllables to continue their discussion regarding suitable text for clause 26.1. National bodies and liaison organizations are requested to review and provide feedback on documents N3168 and N3172, for consideration at meeting M50.

**RESOLUTION M49.24 (Orkhon proposal):**

**Unanimous**

With reference to document N3164 WG2 requests national bodies and liaison organizations to review and provide feedback on the contribution for consideration at meeting M50.

**RESOLUTION M49.25 (IRG schedule for future CJK Extensions):**

**Unanimous**

WG2 endorses IRG's schedule for work on future CJK Extensions, as presented under item 4 in document N3135.

**RESOLUTION M49.26 (Principles and Procedures):**

**Unanimous**

With reference to document N3130, WG2 accepts removal of the question on Levels of Implementation from the Proposal Summary Form. In addition WG2 instructs its ad hoc on Principles and Procedures to formulate appropriate text regarding "what is appropriate for inclusion in ballot comments" accommodating the comments received from this meeting. Further WG2 instructs its ad hoc on P&P to post the updated Principles and Procedures document to the WG2 site.

**RESOLUTION M49.27 (Feedback regarding 10646):**

**Unanimous**

WG2 requests SC2 secretariat and SC2 chair to convey to ISO/IEC JTC1 and its subcommittees, and SC2's liaison organizations such as ITU-T, that all decisions related to changes to ISO/IEC 10646 standard rest with SC2 and its WG2, and all questions or concerns regarding ISO/IEC 10646 should be directed to SC2/WG2 and the SC2 secretariat.

**RESOLUTION M49.28 (Coordination between ITTF and project editor):**

**Unanimous**

With the recent experience of unintentional errors of technical nature (see document N3148, item 4) being introduced into the publication of Amendment 2 to ISO/IEC 10646:2003, WG2 requests that better coordination be arranged between the ITTF and the project editor to avoid such differences between approved FDAM / FDIS and published Amendments and Standards. As a minimum WG2 requests the final publication text be provided for review by the project editor prior to publication with a view towards avoiding errors introduced in publication, especially technical errors. We understand that similar processing and coordination related problems have been reported to ITTF through different national bodies and JTC1 and its SCs. See document JTC1 N8202 for additional information. WG2 further requests SC2 secretariat and SC2 chair to convey WG2's concerns to JTC1 and ITTF.

**RESOLUTION M49.29 (Future meetings):**

**Unanimous**

WG 2 meetings:

Meeting 50 - 2007-04-23/27, Frankfurt, Germany (backup: USA)

Meeting 51 - 2007-09-17/21, Urumqi, Xinjiang, China (backup: Seoul, Republic of Korea) along with SC2 plenary.

Meeting 52 - Spring 2008, Taipei (TCA) (backup: Seoul, Republic of Korea)

Meeting 53 - Fall 2008 - London, UK (pending confirmation) along with SC2 plenary.

IRG meeting:

IRG #27 - 2006-11-27/12-01, Sanya, Hainan (China) - (changed location)

IRG #28 - 2007-06-4/8, Taipei, Taiwan (TCA)

IRG #29 - 2007-11-12/16, San Jose, California, USA (host Adobe; to be confirmed).

IRG #30 - June 2008, Busan (Republic of Korea) (tentative)

IRG #31 - November 2008, Kunming, Yunnan (China) (tentative)

IRG #32 - June 2009 (seeking host).

**RESOLUTION M49.30 (Roadmap snapshot):**

**Unanimous**

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3149) to the WG2 web site.

**RESOLUTION M49.31 (Availability of 10646 and 14651 free of charge):**

**By Acclamation**

WG 2 thanks the ISO Council for approving our request for making ISO/IEC 10646 and ISO/IEC 14651 available free of charge on the ISO web site (see document N3175 for the announcement text).

**RESOLUTION M49.32 (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 M49.33 (Appreciation to Host):**

**By Acclamation**

WG 2 thanks AIST and the Japanese national body, and in particular Dr. Kazuhito Ohmaki and Ms. Toshiko Kimura, for hosting the meeting, their kind hospitality, and for providing excellent meeting facilities.

### Meeting 49 Attendance List

JTC1/SC2/WG2 Meeting 49, AIST, Akihabara, Tokyo, Japan; 2006-09-25/29

The following **35** delegates representing **9** national bodies, **2** liaison organizations, SC2 secretariat and **1** guest were present at different times during the meeting.

Name	Representing	Affiliation
Alain LaBonté	Canada Editor 14651	Ministère des services gouvernementaux du Québec
V. S. (Uma) Umamaheswaran	Canada; Recording Secretary	IBM Canada Ltd.
CAI Jingsheng	China	General Administration of Press and Publication of PRC
CHEN Zhuang	China	Chinese Electronics Standardization Institute
SU Guoping	China	Xinjiang Uighur Autonomous Regional Working Committee of Minorities' Language and Writing
LI Xiao	China	Xinjiang Technical Institute of Physics & Chemistry, Chinese Academy of Science
Wushour Slamu	China	Department of Computer Sciences, Xinjiang University
Mai Maitiaili-abudureyimu	China	Xinjiang Uighur Autonomous Regional Working Committee of Minorities' Language and Writing
Erkki I. Kolehmainen	Finland	CSC - Scientific Computing Ltd.
Anssi Yli-Jyrä	Finland	CSC - Scientific Computing Ltd.
Michael Everson	Ireland; Contributing Editor	Evertime
Qin LU	IRG Rapporteur	Hong Kong Polytechnic University
Kazuhito OHMAKI	Japan	National Institute of Advanced Industrial Science and Technology
Tetsuji ORITA	Japan	IBM Japan Ltd.
Satoshi YAMAMOTO	Japan	Hitachi Ltd.
Masahiro SEKIGUCHI	Japan	Fujitsu Ltd.
Yasuhiro ANAN	Japan	Microsoft Japan
Kouichi YAMAZAKI	Japan	CTI
CHO Namho	Korea (Republic of)	The National Institute of the Korean Language
KIM Kyongsok	Korea (Republic of)	Pusan National University
YANG Wang Sung	Korea (Republic of)	Haansoft, Inc.
AHN Dae Hyuk	Korea (Republic of)	Microsoft Korea
BAE Jinseok	Korea (Republic of)	Korean Agency for Technology and Standards
Elżbieta Broma-Wrzesień	Poland	Telekomunikacja Polska, Poland
Tatsuo KOBAYASHI	SC2 Chair, Japan	Justsystem Corporation
Toshiko KIMURA	Host, SC2 Secretariat	IPSJ/ITSCJ
TSENG Shih-Shyeng	TCA - Liaison	Academia Sinica
WEI Lin-Mei	TCA - Liaison	Chinese Foundation Of Digitization Technology
Andrew West	UK	Consultant
Martin Hosken	UK	SIL International
Jason Glavy	Guest	Ishikawa Metal Co. Ltd.
Asmus Freytag	USA The Unicode Consortium - Liaison; Contributing Editor	Unicode Inc.
Ken Whistler	USA; Contributing Editor	Sybase Inc.
Mike Ksar	USA; Convener	Microsoft Corporation
Michel Suignard	USA; Project Editor	Microsoft Corporation