

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

**ISO/IEC JTC 1/SC 2 N3972R
ISO/IEC JTC 1/SC 2/WG 2 N 3354R
Date: 2007-10-01**

Source: WG 2 meeting 51, Hangzhou, China, 2007-09-17/21
Title: Resolutions of WG 2 meeting 51
Action: For approval by SC 2 and for information to WG 2
Status: Adopted at meeting 51 of WG 2
Distribution: ISO/IEC JTC 1/SC 2 and WG 2

Experts from Canada, China, Finland, 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).

*Character count 99016 (till end of Amd. 2)
1102 additions in FDAM3
636 additions in FPDAM4
5719 additions in PDAM5
Total: 106473 (prior to meeting M51)*

RESOLUTION M51.1 (Myanmar changes):

Unanimous

With reference to document N3277, WG2 accepts the rearranged code chart for Myanmar block including the following changes (in the new code positions):

- a. Change the glyphs for 107A MYANMAR LETTER SHAN NYA
- b. Change the name for 108C to MYANMAR SIGN SHAN COUNCIL TONE-3, and adjust the base line for the glyph
- c. Add the following 17 characters:

1077 MYANMAR LETTER SHAN GA	1093 MYANMAR SHAN DIGIT THREE
1079 MYANMAR LETTER SHAN ZA	1094 MYANMAR SHAN DIGIT FOUR
107B MYANMAR LETTER SHAN DA	1095 MYANMAR SHAN DIGIT FIVE
107F MYANMAR LETTER SHAN BA	1096 MYANMAR SHAN DIGIT SIX
108B MYANMAR SIGN SHAN COUNCIL TONE-2	1097 MYANMAR SHAN DIGIT SEVEN
1090 MYANMAR SHAN DIGIT ZERO	1098 MYANMAR SHAN DIGIT EIGHT
1091 MYANMAR SHAN DIGIT ONE	1099 MYANMAR SHAN DIGIT NINE
1092 MYANMAR SHAN DIGIT TWO	109E MYANMAR SYMBOL SHAN ONE
	109F MYANMAR SYMBOL SHAN EXCLAMATION

- d. Remove the tiny dot in the glyph for 1040 MYANMAR DIGIT ZERO

The rearranged code chart and names list are shown on page 7 of document N3277 as updated in this meeting.

count: +17 =653 in Amd.4

RESOLUTION M51.2 (Lanna script):

Unanimous

With reference to the ad hoc report on Lanna script in document N3346, and based on disposition of ballot comments on FPDAM4 at the meeting, WG2 resolves to move all the changes introduced for Lanna script (block 1A20--1AAF) from Amendment 4 to Amendment 5, incorporating the following changes:

- a. Ensure the correct glyphs and associated names are used to produce the charts correcting the previous production error
- b. Replace LANNA with TAI THAM in the script name, the block name and all the character names
- c. Add an annotation that the script is also known as LANNA (similar to TAI LUE)
- d. Insert a new character 1A5A TAI THAM SIGN LOLA HOY KONGNOT
- e. Move the characters in 1A5A to 1A5E down one position
- f. Move the character in 1A5F to 1A7E.

Further the Chinese national body and other experts are invited to discuss and resolve all outstanding concerns from document N3346 for consideration at the next WG2 meeting.

*count: -127= 526 in Amd.4
count: +128= 5847 in Amd.5*

RESOLUTION M51.3 (Disposition of FPDAM4 ballot comments):**Unanimous**

WG2 accepts the disposition of ballot comments on FPDAM4 in document N3344 and instructs its editor to prepare the final text of Amendment 4 incorporating the dispositions. The following changes are noted in particular:

- a. Lanna script is moved out to Amendment 5 per resolution M51.2 above
- b. Improvement of the glyph for 1E9E
- c. Correction to the glyphs for 0333 and 0347
- d. Addition of annotations to MALAYALAM LETTER CHILLU RR and CHILLU L
- e. Changes in Myanmar Shan entries per resolution M51.1 above
- f. Rearrangement of characters in columns 2E2, 2E3 and 2E4 in the Supplemental Punctuation block per Irish ballot comment T.4 and accompanying modified chart on page 5 in document N3330
- g. Replacement of 'SWUNG DASH' with 'TILDE' in the names for 2E1B, 2E1E and 2E1F
- h. Corrections to several source reference errors for CJK
- i. Corrections to collection number allocations
- j. Removal of 2018--201F, 301D-301F from the BiDi mirrored list

*count = 526 in Amd. 5***RESOLUTION M51.4 (Progression of Amendment 4):****Unanimous**

WG2 resolves to include all the items accepted for inclusion in the standard noted in resolutions M51.1 and M51.2 into Amendment 4. WG2 instructs its project editor to forward the final text of Amendment 4 along with the disposition of comments document N3344 to the SC2 secretariat for an FDAM ballot. The final set of charts and names lists are in document N3348. The unchanged target starting date for FDAM4 is 2007-12.

*Count = net 526 additions in FDAM4
Total: 100118+526 = 100644 till end of FDAM4*

RESOLUTION M51.5 (Removal of Bamum script from Amd. 5):**Unanimous**

With reference to document N3298, and supportive technical comments in PDAM5 ballot response document N3331, WG2 resolves to remove all changes introduced for Bamum script (block 1C80--1CCF) from Amendment 5, awaiting further input from the Bamum user community before further processing.

*count: -88= 5759 in Amd.5***RESOLUTION M51.6 (Removal of Meitei Mayek script from Amd. 5):****Unanimous**

With reference to document N3327, and based on discussion of PDAM 5 ballot comments on Meitei Dandas at the meeting, WG2 resolves to remove all changes introduced for Meitei Mayek script (block A6A0--A6FF) from Amendment 5, until the question about script-specific Dandas is resolved (see resolution M51.7 below).

*count: -76= 5681 in Amd.5***RESOLUTION M51.7 (Criteria for script-specific Dandas):****Unanimous**

WG2 invites the German, Indian, Irish, UK and US national bodies in consultation with other experts, to formulate 'definitive criteria for script-specific Dandas' for consideration at the next WG2 meeting for inclusion in the WG2 Principles and Procedures.

RESOLUTION M51.8 (Word Separator Middle Dot)**Unanimous**

With reference to documents N3347 and Irish ballot comment T.3 on PDAM 5 in document N3331, WG2 accepts to encode

2E31 WORD SEPARATOR MIDDLE DOT

with its glyph as shown in document N3349.

*count: +1 =5682 in Amd. 5***RESOLUTION M51.9 (Update to 11 KP source references)****Unanimous**

WG2 accepts to update the KP1 source reference mapping for 11 code points per document N3285.

RESOLUTION M51.10 (Japanese ARIB ideographs):**China - Abstention****Canada, Finland, Ireland, Japan, Korea (Republic of), Poland, UK and USA - Acceptance**

With reference to document N3318, WG2 accepts to encode the following:

- 2 CJK unified ideograph characters: 9FC4 (ARIB ID 47), 9FC5 (ARIB ID 95), and
- 4 CJK Compatibility ideograph characters: FA6B (ARIB ID 39), FA6C (ARIB ID 67), FA6D (ARIB ID 93), and FA6E (ARIB ID 105)

with their glyphs and compatibility mappings as shown in Table 7-11 in document N3318.

Further, WG2 requests IRG to review and provide feedback on the above at its November 2007 meeting.

*count: +6 = 5688 in Amd.5***RESOLUTION M51.11 (Disposition of PDAM5 ballot comments):****Unanimous**

WG2 accepts the disposition of ballot comments on PDAM5 in document N3345 and instructs its editor to prepare the final text of Amendment 5 incorporating the dispositions. The following changes are noted in particular:

- a. Addition of Tai Pham script (also known as Lanna) per resolution M51.2 above
- b. Removal of Bamum script per resolution M51.5 above
- c. Removal of Meitei Mayek script per resolution M51.6 above
- d. Addition of 2E31 per resolution M51.8 above
- e. Updates to KP source reference per resolution M51.9 above
- f. Addition of 6 ideographs per resolution M51.10 above
- g. Removal of 67 CJK Ext. C unified ideographs (see also document N3280 from IRG)
- h. Corrections to 26 CJK Ext. C ideographs per ballot comments from Japan
- i. Corrections to glyphs for 14 CJK Ext. C unified ideographs (see also documents N3279 and N3281)
- j. Corrections to source references for several CJK Ext. C unified ideographs
- k. Deletion of 1 Egyptian hieroglyph at 130FB
- l. Addition of 9 Egyptian hieroglyphs
- m. Rearrangement of code chart for Egyptian hieroglyphs reflecting the above changes and removing any empty code positions
- n. Addition of missing annotations for Korean Hangul additions
- o. Cleanup of the source references along with IRG-provided G_KX data and hex notation in RoK source references.
- p. Updates to the names list for Hangul Jamos to avoid confusion
- q. Corrections to collection number errors

*count:-55 = 5633 in Amd. 5***Correction: Item g above should read:**

- g. Removal of 63 CJK Ext. C unified ideographs and removal of T-source for 4 CJK Ex. C unified ideographs (per charts in document N3278 attachment A).

Disposition of comments N3345 should also reflect this correction.*(The running counts for Amd. 5 and the total have also been updated.)***RESOLUTION M51.12 (Progression of Amendment 5):****Unanimous**

WG2 instructs its project editor to forward the final text of Amendment 5 along with the disposition of comments document N3345 to the SC2 secretariat for an FPDAM ballot. The final set of charts and names lists are in document N3349. The unchanged starting dates for this work item are: FPDAM 2007-10-31, and FDAM 2008-07.

*count: net 5629 additions in FPDAM5
Total: 100644+5633 = 106277 till end of FPDAM5***RESOLUTION M51.13 (Imperial Aramaic script):****Unanimous**

WG2 accepts to encode in the standard 31 characters in code positions 10840 to 10855 and 10857 to 1085F, in a new block 10840 to 1085F named Imperial Aramaic, with their names and glyphs as shown in document N3339.

*count: 31 = 31 in Amd.6***RESOLUTION M51.14 (Phoenician numbers):****Unanimous**

With reference to document N3284, WG2 accepts to encode the following 2 characters:

- 1091A PHOENICIAN NUMBER TWO
- 1091B PHOENICIAN NUMBER THREE

with their glyphs as shown on page 5 in document N3284.

count: +2 = 33 in Amd.6

RESOLUTION M51.15 (Inscriptional Parthian):**Unanimous**

WG2 accepts to encode in the standard 30 characters in code positions 10B40 to 10B55 and 10B58 to 10B5F, in a new block 10B40 to 10B5F named Inscriptional Parthian, with their names and glyphs as shown on page 18 in document N3286.

*count: 30 = 63 in Amd.6***RESOLUTION M51.16 (Inscriptional Pahlavi):****Unanimous**

WG2 accepts to encode in the standard 27 characters in code positions 10B60 to 10B72 and 10B78 to 10B7F, in a new block 10B60 to 10B7F named Inscriptional Pahlavi, with their names and glyphs as shown on page 19 in document N3286.

*count: +27= 90 in Amd.6***RESOLUTION M51.17 (Common Indic Number Forms):****Unanimous**

With reference to documents N3312, N3334 and N3316, WG2 accepts to encode 10 characters in code positions A830 to A839 in a new block A830 to A83F called Common Indic Number Forms with glyphs as shown on page 14 of document N3316.

*count: +10 = 100 in Amd.6***RESOLUTION M51.18 (Bengali Ganda Currency mark):****Unanimous**

With reference to document N3311, WG2 accepts to encode:
09FB BENGALI GANDA MARK
with its glyph as shown in document N3311.

*count: +1 = 101 in Amd.6***RESOLUTION M51.19 (Tibetan Religious symbols):****Unanimous**

With reference to document N3268, WG2 accepts to encode the following 4 characters:

0FD5 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR
0FD6 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR
0FD7 TIBETAN SYMBOL GYUNG DRUNG NANG -KHOR BZHI MIG CAN
0FD8 TIBETAN SYMBOL GYUNG DRUNG PHYI -KHOR BZHI MIG CAN

with their glyphs as shown on page 1 in document N3268.

*count: +4 = 105 in Amd.6***RESOLUTION M51.20 (Amendment 6 – subdivision and PDAM text):****USA - Abstention****Canada, China, Finland, Ireland, Japan, Korea (Republic of), Poland, and UK - Acceptance**

WG2 instructs its editor / convener to prepare a project sub division proposal (see document N3358) and PDAM text based on resolutions M51.13 to M51.19 above, and forward them to the SC2 secretariat for ballot. The proposed start dates for the progression of this work item are: PDAM 2007-11, FPDAM 2008-06, and FDAM 2008-11.

*count: net 105 additions in PDAM6**Total: 106277+105=106382 till end of PDAM6***RESOLUTION M51.21 (FCD of next edition):****Unanimous**

With reference to documents N3274, N3275 and N3276, WG2 instructs its editor / convener to prepare:

- a. a subdivision proposal for the next edition of the standard (see document N3360)
- b. text for the next edition of the standard incorporating the texts of Amendments 1 through Amendment 5

and submit the above along with the updated rationale document N3362 to SC2 for registration and balloting, with the following schedule: FCD: 2008-03 and FDIS: 2008-11.

*Total of 106273 in 2nd edition***RESOLUTION M51.22 (Nüshu script)****Unanimous**

With reference to documents N3287, N3322, N3337 and N3340 on Nüshu script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.23 (Samaritan alphabet)**Unanimous**

With reference to document N3291 on Samaritan alphabet, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.24 (Javanese script)**Unanimous**

With reference to documents N3292, N3319 and N3329 on Javanese script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.25 (Psalter Pahlavi script)**Unanimous**

With reference to document N3286 containing a proposal on Psalter Pahlavi script, WG2 invites national bodies and liaison organizations to review and provide feedback on Psalter Pahlavi script to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.26 (Book Pahlavi script)**Unanimous**

With reference to document N3294 on Book Pahlavi script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.27 (Old South Arabian script)**Unanimous**

With reference to documents N3296 and N3309 on Old South Arabian script, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to work with the US national body and submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.28 (Tangut script)**Unanimous**

With reference to documents N3297, N3307, N3333 and N3343 on Tangut script (also known as Xi Xia script), WG2 invites national bodies and liaison organizations to review and provide feedback to the US national body and invites the US national body to work with Chinese, Irish and UK national bodies and invited experts and submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.29 (Old Turkic script)**Unanimous**

With reference to documents N3299 and N3357 on Old Turkic script (also known as Orkhun script), WG2 invites national bodies and liaison organizations to review and provide feedback to SEI and invites SEI to work with the Chinese national body and submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.30 (Old Lisu script)**Unanimous**

With reference to documents N3317, N3323 and N3326 on Old Lisu script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.31 (Simple Miao script)**Unanimous**

With reference to document N3335 on Simple Miao script, WG2 invites national bodies and liaison organizations to review and provide feedback to China and invites the Chinese national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.32 (3 Malayalam characters)**Unanimous**

With reference to document N3295 on 3 Malayalam archaic characters, WG2 invites national bodies and liaison organizations to review and provide feedback to Ireland and invites the Irish national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.33 (Japanese TV Symbols)**Unanimous**

With reference to document N3341 on Japanese TV symbols, WG2 invites national bodies and liaison organizations to review and provide feedback to US national body and invites the US national body to submit a revised proposal incorporating the feedback for consideration at WG2 meeting 52.

RESOLUTION M51.34 (Concern on delay in FDAM 3 progression):**Unanimous**

WG2 instructs its convener to communicate to ITTF via SC2 secretariat and SC2 chair its concern on the delay by ITTF in processing FDAM3 to ISO/IEC 10646: 2003 with a request for expediting its processing.

RESOLUTION M51.35 (IRG Principles and Procedures):**Unanimous**

With reference to item 3 in document N3283, WG2 invites IRG to develop a set of principles and procedures to guide their work, with due considerations for the current WG2 Principles and Procedures.

RESOLUTION M51.36 (IRG Annex S Review):**Unanimous**

With reference to item 4 in document N3283, WG2 endorses the IRG activity to review and feedback on Annex S of ISO/IEC 10646: 2003, without impacting already unified ideographs in the standard, taking into consideration the FCD ballot progression which starts in 2008-03..

RESOLUTION M51.37 (IRG Feedback on Security and IICORE):**Unanimous**

With reference to item 7 in document N3283, WG2 thanks the IRG for the feedback in document N3282. WG2 requests SC2 to forward this document to national bodies and liaison members for information.

RESOLUTION M51.38 (IRG ideographs for Names):**Unanimous**

With reference to item 8 in document N3283, WG2 endorses the IRG activity to investigate and report back to WG2 on the issues and recommendations on ideographs for names of persons, places and the like.

RESOLUTION M51.39 (IRG Urgent-Need ideographs):**Unanimous**

With reference to item 10 in document N3283, WG2 requests the IRG to report back to WG2 with a more complete plan related to the identified 12000 'urgent need' ideographs, along with a prioritization of this work with respect to other existing IRG work items.

RESOLUTION M51.40 (Roadmap snapshot):**Unanimous**

WG2 instructs its convener to post the updated snapshot of the roadmaps (in document N3306) to the WG2 web site.

RESOLUTION M51.41 (Future meetings):**Unanimous**

WG 2 meetings:

Meeting 52 - 2008-04-21/25, Redmond, WA, USA; SC2 plenary is planned for the 25th of April

Meeting 53 - Fall 2008, seeking host; backup USA

Meeting 54 - Spring 2008, Republic of Korea (pending confirmation); backup USA

Meeting 55 - Fall 2009 (along with SC2 plenary); Tokushima, Japan (pending confirmation); backup USA

RESOLUTION M51.42 (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 M51.43 (Appreciation to Host):**By Acclamation**

WG 2 thanks the Chinese national body (CESI), in particular Mr. Chen Zhuang, Ms. Huang Shanshan, Ms. Wang Li and Mr. He Zheng-an, for hosting the meeting, for providing excellent meeting facilities, and their kind hospitality.

Character count 99016 (till end of Amd. 2)
Additions: 1102 in FDAM3; 526 in FDAM4; 5633 in FPDAM5; and 105 in PDAM6
Total count: 106382 (after meeting M51)

Attendance List

The following **42** attendees representing **9** national bodies, **3** liaison organizations, including **4** invited experts were present at different times during the meeting.

Name	Representing	Affiliation
Mike KSAR	Convener, USA	Independent
HE Zheng-an	host, China	Chinese Electronics Standardization Institute
HUANG Shanshan	host, China	Chinese Electronics Standardization Institute
WANG Li	host, China	Chinese Electronics Standardization Institute
Adrian CHEUK	Invited expert, China	SIL International
Erich FICKLE	invited expert, China	SIL Internaional
Daniel ZHANG	Invited expert, Sweden	Sony Ericsson Mobile Communication
David MORSE	Invited expert, Thailand	LISU Literature outreach
LU Qin	IRG Rapporteur	Hong Kong Polytechnic University
Tatsuo KOBAYASHI	SC2 Chair, Japan	Justsystems Corporation
Deborah ANDERSON	SEI, UC Berkeley - Liaison	Dept. of Linguistics, UC Berkeley
Shih-Shyeng TSENG	TCA - Liaison	Academia Sinica
Alain LABONTÉ	Canada; Editor 14651	Ministère des services gouvernementaux du Québec
V. S. (Uma)	Canada; Recording Secretary	IBM Canada Ltd.
UMAMAHESWARAN		
AI Wendan	China	Xishuangbanna Newspaper Company
AI Xiang	China	Xishuangbanna Minority language Commission
CHEN Zhuang	China	Chinese Electronics Standardization Institute
HE Lifeng	China	Yunnan Minority Language Commission
HUANG Yanjun	China	Independent
LI Xulian	China	Minority Language Office, State Ethnic Affairs Commission
Mai Maitiaili	China	Xinjiang Province Committee of Language
ABUDUREYIMU		
RONG Fengmei	China	Yunnan Minority Language Commission
TAN Yuting	China	Yunnan Minority Language Commission
WANG Xiaoming	China	Institute of Applied Linguistics, Ministry of Education
Wushour SILAMU	China	Xinjiang University
XIE Ming yao	China	Jiangyong, Hunan
XIONG Yuyou	China	Yunnan Minority Language Commission
YIN Jianmin	China	Huaguang Company
YIN Jianghong	China	Beijing Founder Electronics Co. Ltd.
YU Kanglong	China	Xishuangbanna Newspaper Company
ZHAO Liming	China	Núshu Institute, Tsinghua University
ZHAO Shihong	China	Lijiang Dongba Culture Research Institute
ZHU Cuifang	China	Tsinghua University
Eero VITIE	Finland	CSC - Finnish IT Centre for Science
Michael EVERSON	Ireland; Contributing Editor	Evertime
Masahiro SEKIGUCHI	Japan	Fujitsu Limited
Dae Hyuk AHN	Korea (Republic of)	Microsoft Korea
KIM Kyongsok	Korea (Republic of)	Pusan National University
Elżbieta BROMA-WRZESIEŃ	Poland	Telekomunikacja Polska S.A.
John KNIGHTLEY	UK	Independent
Michel SUIGNARD	USA; Project Editor	Microsoft Corporation
Peter CONSTABLE	USA; The Unicode Consortium - Liaison; Contributing Editor	Microsoft Corporation