

Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Международная организация по стандартизации

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Meeting Date: March 17, 1998
Attendees: Avery Bishop (chair)
Michael Everson (Ireland)
Ken Whistler (US)
Anshuman Pandey (expert)
Maurice Bauhahn (expert)
Rick McGowan (Unicode)
Lee Collins (expert)
Lisa Moore (US)
Cathy Wissink (expert)

Khmer. We briefly discussed the history of this proposal. There have been two disagreeing factions: one that preferred explicitly coded subscript consonants (called the subscript model), and one which preferred the current UCS model which uses virama to create consonant conjuncts (called the virama model). The main benefit of the subscript model was thought to be in improving the user interface. The main benefit of the virama model was ease of implementation as it is a well-known model.

During the discussion, we came to the conclusion that the user interface could be managed equally well by either model. We also decided that the subscript could prove to be too inflexible for unusual conjuncts whereas the virama model is more productive. Based on these points, we decided to endorse the virama model, with characters encoded in natural Khmer order. We also decided to unify one character from Maurice Bauhahn's most recent proposal, the KHMER SUBSTITUTION SIGN with U+25CC DOTTED CIRCLE.

Maurice Bauhahn agreed to provide an improved list of character names. We wish to improve the transliteration spellings.

Burmese. The basic proposal was agreed to easily; it is a virama model. The main items of discussion were character ordering, initial vowels, and subscript YA, RA, VA, HA letters. We decided to encode characters in natural Burmese order. Lee Collins had proposed to delete eight vowels from N1523, but after discussion, we decided to retain the six vowels used in Pali and Sanskrit. The four subscript letters proposed by Lee Collins were not required when using the virama model, so they were not accepted.

The consensus of the group was to progress both proposals as PDAMS.

TABLE XXX - Row 17: KHMER

| | 178 | 179 | 17A | 17B | 17C | 17D | 17E | 17F |
|---|----------|----------|------------|-----------|-----------|-----------|-----------|-----|
| 0 | ក 000 | ថ 016 | ហ 032 | ញ 048 | ៀ 064 | ្រ 080 | ័ 096 | 112 |
| 1 | ខ 001 | ទ 017 | ឡ 033 | ឱ 049 | េ 065 | ែ 081 | ្វ 097 | 113 |
| 2 | គ 002 | ធ 018 | អ 034 | ច 050 | ៃ 066 | ្ល 082 | ្រ 098 | 114 |
| 3 | ឃ 003 | ន 019 | អ 035 | ឌ 051 | ៃ 067 | ្រ 083 | ្រ 099 | 115 |
| 4 | ង 004 | ប 020 | រា 036 | ្រ 052 | ោ 068 | ្រ 084 | ្រ 100 | 116 |
| 5 | ច 005 | ផ 021 | ត 037 | ្រ 053 | ោ 069 | ្រ 085 | ្រ 101 | 117 |
| 6 | អ 006 | ព 022 | ្រ 038 | ្រ 054 | ្រ 070 | ្រ 086 | ្រ 102 | 118 |
| 7 | ជ 007 | ភ 023 | ខ 039 | ្រ 055 | ្រ 071 | ្រ 087 | ្រ 103 | 119 |
| 8 | ឃ 008 | ម 024 | ឌ 040 | ្រ 056 | ្រ 072 | ្រ 088 | ្រ 104 | 120 |
| 9 | ញ 009 | យ 025 | ឌ 041 | ្រ 057 | ្រ 073 | ្រ 089 | ្រ 105 | 121 |
| A | ដ 010 | រ 026 | ឌ 042 | ្រ 058 | ្រ 074 | ្រ 090 | 106 | 122 |
| B | ថ 011 | ល 027 | ប្រ 043 | ្រ 059 | ្រ 075 | ្រ 091 | 107 | 123 |
| C | ឌ 012 | រ 028 | ប្រ 044 | ្រ 060 | ្រ 076 | ្រ 092 | 108 | 124 |
| D | ផ 013 | ឌ 029 | ្រ 045 | ្រ 061 | ្រ 077 | 093 | 109 | 125 |
| E | ណ 014 | ថ 030 | ្រ 046 | ្រ 062 | ្រ 078 | 094 | 110 | 126 |
| F | ត 015 | ស 031 | ង 047 | ្រ 063 | ្រ 079 | 095 | 111 | 127 |

G = 00
P = 00

TABLE XXX - Row 17: KHMER

| dec | hex | Name | dec | hex | Name |
|-----|-----|-------------------------------------|-----|-----|-----------------------------------|
| 000 | 80 | KHMER LETTER KA | 089 | D9 | KHMER SIGN PHNAEK MUAN |
| 001 | 81 | KHMER LETTER KHA | 090 | DA | KHMER SIGN KOOMUUT |
| 002 | 82 | KHMER LETTER KO | 091 | DB | KHMER CURRENCY SYMBOL RIAL |
| 003 | 83 | KHMER LETTER KHO | 092 | DC | KHMER SIGN AVAGRAHASANYA |
| 004 | 84 | KHMER LETTER NGO | 093 | DD | (This position shall not be used) |
| 005 | 85 | KHMER LETTER CA | 094 | DE | (This position shall not be used) |
| 006 | 86 | KHMER LETTER CHA | 095 | DF | (This position shall not be used) |
| 007 | 87 | KHMER LETTER CO | 096 | E0 | KHMER DIGIT ZERO |
| 008 | 88 | KHMER LETTER CHO | 097 | E1 | KHMER DIGIT ONE |
| 009 | 89 | KHMER LETTER NYO | 098 | E2 | KHMER DIGIT TWO |
| 010 | 8A | KHMER LETTER DA | 099 | E3 | KHMER DIGIT THREE |
| 011 | 8B | KHMER LETTER TTHA | 100 | E4 | KHMER DIGIT FOUR |
| 012 | 8C | KHMER LETTER DO | 101 | E5 | KHMER DIGIT FIVE |
| 013 | 8D | KHMER LETTER TTHO | 102 | E6 | KHMER DIGIT SIX |
| 014 | 8E | KHMER LETTER NNO | 103 | E7 | KHMER DIGIT SEVEN |
| 015 | 8F | KHMER LETTER TA | 104 | E8 | KHMER DIGIT EIGHT |
| 016 | 90 | KHMER LETTER THA | 105 | E9 | KHMER DIGIT NINE |
| 017 | 91 | KHMER LETTER TO | 106 | EA | (This position shall not be used) |
| 018 | 92 | KHMER LETTER THO | 107 | EB | (This position shall not be used) |
| 019 | 93 | KHMER LETTER NO | 108 | EC | (This position shall not be used) |
| 020 | 94 | KHMER LETTER BA | 109 | ED | (This position shall not be used) |
| 021 | 95 | KHMER LETTER PHA | 110 | EE | (This position shall not be used) |
| 022 | 96 | KHMER LETTER PO | 111 | EF | (This position shall not be used) |
| 023 | 97 | KHMER LETTER PHO | 112 | F0 | (This position shall not be used) |
| 024 | 98 | KHMER LETTER MO | 113 | F1 | (This position shall not be used) |
| 025 | 99 | KHMER LETTER YO | 114 | F2 | (This position shall not be used) |
| 026 | 9A | KHMER LETTER RO | 115 | F3 | (This position shall not be used) |
| 027 | 9B | KHMER LETTER LO | 116 | F4 | (This position shall not be used) |
| 028 | 9C | KHMER LETTER VO | 117 | F5 | (This position shall not be used) |
| 029 | 9D | KHMER LETTER SHA | 118 | F6 | (This position shall not be used) |
| 030 | 9E | KHMER LETTER SO | 119 | F7 | (This position shall not be used) |
| 031 | 9F | KHMER LETTER SA | 120 | F8 | (This position shall not be used) |
| 032 | A0 | KHMER LETTER HA | 121 | F9 | (This position shall not be used) |
| 033 | A1 | KHMER LETTER LA | 122 | FA | (This position shall not be used) |
| 034 | A2 | KHMER LETTER QA | 123 | FB | (This position shall not be used) |
| 035 | A3 | KHMER INDEPENDENT VOWEL QAA | 124 | FC | (This position shall not be used) |
| 036 | A4 | KHMER INDEPENDENT VOWEL QAA | 125 | FD | (This position shall not be used) |
| 037 | A5 | KHMER INDEPENDENT VOWEL QI | 126 | FE | (This position shall not be used) |
| 038 | A6 | KHMER INDEPENDENT VOWEL QII | 127 | FF | (This position shall not be used) |
| 039 | A7 | KHMER INDEPENDENT VOWEL QY | | | |
| 040 | A8 | KHMER INDEPENDENT VOWEL QYY | | | |
| 041 | A9 | KHMER INDEPENDENT VOWEL QU | | | |
| 042 | AA | KHMER INDEPENDENT VOWEL QUU | | | |
| 043 | AB | KHMER INDEPENDENT VOWEL RY | | | |
| 044 | AC | KHMER INDEPENDENT VOWEL RYY | | | |
| 045 | AD | KHMER INDEPENDENT VOWEL LY | | | |
| 046 | AE | KHMER INDEPENDENT VOWEL LYY | | | |
| 047 | AF | KHMER INDEPENDENT VOWEL QE | | | |
| 048 | B0 | KHMER INDEPENDENT VOWEL QAI | | | |
| 049 | B1 | KHMER INDEPENDENT VOWEL QO TYPE ONE | | | |
| 050 | B2 | KHMER INDEPENDENT VOWEL QO TYPE TWO | | | |
| 051 | B3 | KHMER INDEPENDENT VOWEL QAU | | | |
| 052 | B4 | KHMER VOWEL INHERENT AQ | | | |
| 053 | B5 | KHMER VOWEL INHERENT AA | | | |
| 054 | B6 | KHMER VOWEL SIGN AA | | | |
| 055 | B7 | KHMER VOWEL SIGN I | | | |
| 056 | B8 | KHMER VOWEL SIGN II | | | |
| 057 | B9 | KHMER VOWEL SIGN Y | | | |
| 058 | BA | KHMER VOWEL SIGN YY | | | |
| 059 | BB | KHMER VOWEL SIGN U | | | |
| 060 | BC | KHMER VOWEL SIGN UU | | | |
| 061 | BD | KHMER VOWEL SIGN UA | | | |
| 062 | BE | KHMER VOWEL SIGN OE | | | |
| 063 | BF | KHMER VOWEL SIGN YA | | | |
| 064 | C0 | KHMER VOWEL SIGN IA | | | |
| 065 | C1 | KHMER VOWEL SIGN E | | | |
| 066 | C2 | KHMER VOWEL SIGN AE | | | |
| 067 | C3 | KHMER VOWEL SIGN AI | | | |
| 068 | C4 | KHMER VOWEL SIGN OO | | | |
| 069 | C5 | KHMER VOWEL SIGN AU | | | |
| 070 | C6 | KHMER SIGN NIKAHIT | | | |
| 071 | C7 | KHMER SIGN REAHMUK | | | |
| 072 | C8 | KHMER SIGN YUUKALEAPINTU | | | |
| 073 | C9 | KHMER SIGN MUUSIKATOAN | | | |
| 074 | CA | KHMER SIGN TRUYSAP | | | |
| 075 | CB | KHMER SIGN BANTOC | | | |
| 076 | CC | KHMER SIGN ROBAT | | | |
| 077 | CD | KHMER SIGN TOANDAGHIAT | | | |
| 078 | CE | KHMER SIGN KAKABAT | | | |
| 079 | CF | KHMER SIGN AHSDA | | | |
| 080 | D0 | KHMER VOWEL SIGN SAMYOK SANNYA | | | |
| 081 | D1 | KHMER SIGN VIRIAM | | | |
| 082 | D2 | KHMER SIGN JOENG | | | |
| 083 | D3 | KHMER SIGN BATHAMASAT | | | |
| 084 | D4 | KHMER SIGN KHAN | | | |
| 085 | D5 | KHMER SIGN BARIYOOSAN | | | |
| 086 | D6 | KHMER SIGN CAMNUC PII KUUH | | | |
| 087 | D7 | KHMER SIGN LEK TOO | | | |
| 088 | D8 | KHMER SIGN BEYYAL | | | |

TABLE XXX - Row 17: BURMESE

| | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 |
|---|----------|----------|-----------|------------|----------|----------|-----|-----|
| 0 | က 000 | တ 016 | င 032 | ေ 048 | ဝ 064 | ဂ 080 | | 112 |
| 1 | ခ 001 | ထ 017 | အ 033 | ့ 049 | ၁ 065 | ဖ 081 | | 113 |
| 2 | ဂ 002 | ဒ 018 | အာ 034 | ော 050 | ၂ 066 | ဗ 082 | | 114 |
| 3 | ဃ 003 | စ 019 | အိ 035 | ော် 051 | ၃ 067 | ဗ 083 | | 115 |
| 4 | င 004 | န 020 | ဤ 036 | ံ 052 | ၄ 068 | ဇ 084 | | 116 |
| 5 | စ 005 | ပ 021 | ဥ 037 | ့ 053 | ၅ 069 | ဇ 085 | | 117 |
| 6 | ဆ 006 | ဖ 022 | ဥ 038 | ့ 054 | ၆ 070 | ဇ 086 | | 118 |
| 7 | ဇ 007 | ဗ 023 | ဇ 039 | ံ 055 | ၇ 071 | ဇ 087 | | 119 |
| 8 | ဈ 008 | ဘ 024 | အံ 040 | ံ 056 | ၈ 072 | ဇ 088 | | 120 |
| 9 | ဉ 009 | မ 025 | ဩ 041 | ံ 057 | ၉ 073 | ဇ 089 | | 121 |
| A | ည 010 | ယ 026 | ဩ 042 | | ၊ 074 | | | 122 |
| B | ဋ 011 | ရ 027 | ိ 043 | | ။ 075 | | | 123 |
| C | ဌ 012 | လ 028 | ံ 044 | | ၍ 076 | | | 124 |
| D | ဍ 013 | ဝ 029 | ံ 045 | | ၏ 077 | | | 125 |
| E | ဎ 014 | သ 030 | ံ 046 | | ဋ 078 | | | 126 |
| F | ဏ 015 | တ 031 | ံ 047 | | ဋ 079 | | | 127 |

G = 00
P = 00

TABLE xxx - Row 17: BURMESE

| dec | hex | Name | dec | hex | Name |
|-----|-----|---|-----|-----|-----------------------------------|
| 000 | 00 | BURMESE LETTER KA (ka. krii:, ka ji) | 085 | 55 | BURMESE LETTER VOCALIC LL |
| 001 | 01 | BURMESE LETTER KHA (kha. khwe:, hka gwei) | 086 | 56 | BURMESE VOWEL SIGN VOCALIC R |
| 002 | 02 | BURMESE LETTER GA (ga. ngay, ga nge) | 087 | 57 | BURMESE VOWEL SIGN VOCALIC RR |
| 003 | 03 | BURMESE LETTER GHA (gha. khrii:, ga ji) | 088 | 58 | BURMESE VOWEL SIGN VOCALIC L |
| 004 | 04 | BURMESE LETTER NGA (nga.) | 089 | 59 | BURMESE VOWEL SIGN VOCALIC LL |
| 005 | 05 | BURMESE LETTER CA (ca. lum:, hsa loun) | 090 | 5A | (This position shall not be used) |
| 006 | 06 | BURMESE LETTER CHA (cha. lim, hsa lein) | 091 | 5B | (This position shall not be used) |
| 007 | 07 | BURMESE LETTER JA (ja. khwai:, za gwe) | 092 | 5C | (This position shall not be used) |
| 008 | 08 | BURMESE LETTER JHA (jha. myang-chwai:, za myinzwe) | 093 | 5D | (This position shall not be used) |
| 009 | 09 | BURMESE LETTER NYA (nya. kale:, nya galei) | 094 | 5E | (This position shall not be used) |
| 010 | 0A | BURMESE LETTER NNYA (nnya. krii:, nya ji) | 095 | 5F | (This position shall not be used) |
| 011 | 0B | BURMESE LETTER TTA (tta. samlyang:khyit, ta talinjei) | 096 | 60 | (This position shall not be used) |
| 012 | 0C | BURMESE LETTER TTHA (ttha. wam:bhai:, hta wunbe) | 097 | 61 | (This position shall not be used) |
| 013 | 0D | BURMESE LETTER DDA (dda. rang-kok, da yingau) | 098 | 62 | (This position shall not be used) |
| 014 | 0E | BURMESE LETTER DDHA (ddha. re-mhut, da yeihmou) | 099 | 63 | (This position shall not be used) |
| 015 | 0F | BURMESE LETTER NNA (nna. krii:, na ji) | 100 | 64 | (This position shall not be used) |
| 016 | 10 | BURMESE LETTER TA (ta. wam:puu, ta wunbu) | 101 | 65 | (This position shall not be used) |
| 017 | 11 | BURMESE LETTER THA (tha. chang-thuu:, hta hsindu) | 102 | 66 | (This position shall not be used) |
| 018 | 12 | BURMESE LETTER DA (da. twe:, da dwei) | 103 | 67 | (This position shall not be used) |
| 019 | 13 | BURMESE LETTER DHA (dha. okkhyuik, da auhcai) | 104 | 68 | (This position shall not be used) |
| 020 | 14 | BURMESE LETTER NA (na. ngay, na nge) | 105 | 69 | (This position shall not be used) |
| 021 | 15 | BURMESE LETTER PA (pa. cok, pa zau) | 106 | 6A | (This position shall not be used) |
| 022 | 16 | BURMESE LETTER PHA (pha. uuthep, hpa outhou) | 107 | 6B | (This position shall not be used) |
| 023 | 17 | BURMESE LETTER BA (ba. thakhyuik, ba lahcai) | 108 | 6C | (This position shall not be used) |
| 024 | 18 | BURMESE LETTER BHA (bha. kun:, ba goun) | 109 | 6D | (This position shall not be used) |
| 025 | 19 | BURMESE LETTER MA (ma.) | 110 | 6E | (This position shall not be used) |
| 026 | 1A | BURMESE LETTER YA (ya. paklak, ya pale) | 111 | 6F | (This position shall not be used) |
| 027 | 1B | BURMESE LETTER RA (ra. kok, ya gau) | 112 | 70 | (This position shall not be used) |
| 028 | 1C | BURMESE LETTER LA (la.) | 113 | 71 | (This position shall not be used) |
| 029 | 1D | BURMESE LETTER WA (wa.) | 114 | 72 | (This position shall not be used) |
| 030 | 1E | BURMESE LETTER SA (sa., tha) | 115 | 73 | (This position shall not be used) |
| 031 | 1F | BURMESE LETTER HA (ha.) | 116 | 74 | (This position shall not be used) |
| 032 | 20 | BURMESE LETTER LLA (lla. krii:, la ji) | 117 | 75 | (This position shall not be used) |
| 033 | 21 | BURMESE LETTER A (a.) | 118 | 76 | (This position shall not be used) |
| 034 | 22 | BURMESE LETTER AA | 119 | 77 | (This position shall not be used) |
| 035 | 23 | BURMESE LETTER I (Paa-lii. atkharaa i., Pali ehkaya i) | 120 | 78 | (This position shall not be used) |
| 036 | 24 | BURMESE LETTER II (atkharaa i., ehkaya i) | 121 | 79 | (This position shall not be used) |
| 037 | 25 | BURMESE LETTER U (atkharaa u., ehkaya u) | 122 | 7A | (This position shall not be used) |
| 038 | 26 | BURMESE LETTER UU | 123 | 7B | (This position shall not be used) |
| 039 | 27 | BURMESE LETTER E | 124 | 7C | (This position shall not be used) |
| 040 | 28 | BURMESE LETTER EI (atkharaa ei:, ehkaya ei) | 125 | 7D | (This position shall not be used) |
| 041 | 29 | BURMESE LETTER O (o.) | 126 | 7E | (This position shall not be used) |
| 042 | 2A | BURMESE LETTER AU | 127 | 7F | (This position shall not be used) |
| 043 | 2B | BURMESE VOWEL SIGN AA (re: khya., yei hca) | | | |
| 044 | 2C | BURMESE VOWEL SIGN I (lum:krii: tang, lounji tin) | | | |
| 045 | 2D | BURMESE VOWEL SIGN II (lum:krii: tang chan khat, lounji tin hsan hka) | | | |
| 046 | 2E | BURMESE VOWEL SIGN U (takhyong: ngang, tahcaun ngin) | | | |
| 047 | 2F | BURMESE VOWEL SIGN UU (nhac-khyong: ngang, hnacaun ngin) | | | |
| 048 | 30 | BURMESE VOWEL SIGN E (sawe: thui:, thawei htou) | | | |
| 049 | 31 | BURMESE VOWEL SIGN AI (nok pac, nay pyi) | | | |
| 050 | 32 | BURMESE VOWEL SIGN O | | | |
| 051 | 33 | BURMESE VOWEL SIGN AU | | | |
| 052 | 34 | BURMESE SIGN ANUSVARA (se:se tang, theidhei tin) | | | |
| 053 | 35 | BURMESE SIGN DOT BELOW (ok-ka. mrac, auka myi) | | | |
| 054 | 36 | BURMESE SIGN VISARGA (rhe.ka. pok, hyeiga pai) | | | |
| 055 | 37 | BURMESE SIGN VIRAMA | | | |
| 056 | 38 | BURMESE SIGN KILLER (asat, atha) | | | |
| 057 | 39 | BURMESE SIGN KINZI (kang: cii:, kinzi) | | | |
| 058 | 3A | (This position shall not be used) | | | |
| 059 | 3B | (This position shall not be used) | | | |
| 060 | 3C | (This position shall not be used) | | | |
| 061 | 3D | (This position shall not be used) | | | |
| 062 | 3E | (This position shall not be used) | | | |
| 063 | 3F | (This position shall not be used) | | | |
| 064 | 40 | BURMESE DIGIT ZERO | | | |
| 065 | 41 | BURMESE DIGIT ONE | | | |
| 066 | 42 | BURMESE DIGIT TWO | | | |
| 067 | 43 | BURMESE DIGIT THREE | | | |
| 068 | 44 | BURMESE DIGIT FOUR | | | |
| 069 | 45 | BURMESE DIGIT FIVE | | | |
| 070 | 46 | BURMESE DIGIT SIX | | | |
| 071 | 47 | BURMESE DIGIT SEVEN | | | |
| 072 | 48 | BURMESE DIGIT EIGHT | | | |
| 073 | 49 | BURMESE DIGIT NINE | | | |
| 074 | 4A | BURMESE SIGN SECTION (pudma., pouma) | | | |
| 075 | 4B | BURMESE SIGN LITTLE SECTION (pudse:, pouthai) | | | |
| 076 | 4C | BURMESE SYMBOL COMPLETED (atkharaa rwe:, ehkaya ywei) | | | |
| 077 | 4D | BURMESE SYMBOL GENITIVE (atkharaa i., ehkaya i) | | | |
| 078 | 4E | BURMESE SYMBOL LOCATIVE (atkharaa nhuik, ehkaya hnai) | | | |
| 079 | 4F | BURMESE SYMBOL 4NG (atkharaa leng:, ehkaya lagaun) | | | |
| 080 | 50 | BURMESE LETTER SHA (sha.) | | | |
| 081 | 51 | BURMESE LETTER SSA (ssa.) | | | |
| 082 | 52 | BURMESE LETTER VOCALIC R | | | |
| 083 | 53 | BURMESE LETTER VOCALIC RR | | | |
| 084 | 54 | BURMESE LETTER VOCALIC L | | | |