

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	ហា 032	ញ 048	ៀ 064	្ក 080	័ 096	112
1	ខ 001	ទ 017	ឡ 033	ឱ 049	េ 065	្ខ 081	៑ 097	113
2	គ 002	ធ 018	អ 034	ច 050	ៃ 066	្គ 082	័ 098	114
3	ឃ 003	ន 019	អ 035	ឪ 051	ៃ 067	្ឃ 083	័ 099	115
4	ង 004	ប 020	អា 036	៉ 052	ោ 068	្ង 084	័ 100	116
5	ច 005	ផ 021	ត 037	ឲ 053	ោ 069	្ច 085	័ 101	117
6	អ 006	ព 022	ឡ 038	ា 054	៉ 070	្ឆ 086	័ 102	118
7	ជ 007	ភ 023	ខ 039	្ក 055	្ជ 071	្ជ 087	័ 103	119
8	ឈ 008	ម 024	ឪ 040	្ខ 056	្ឈ 072	្ឈ 088	័ 104	120
9	ញ 009	យ 025	ខា 041	្គ 057	្ញ 073	្ញ 089	័ 105	121
A	ដ 010	រ 026	ឪ 042	្ឃ 058	្ដ 074	្ដ 090	106	122
B	ថ 011	ល 027	ប្រ 043	្ង 059	្ឋ 075	្ឋ 091	107	123
C	ឌ 012	វ 028	ប្រ 044	្ច 060	្ឌ 076	្ឌ 092	108	124
D	ឍ 013	គ 029	ព្រ 045	្ឆ 061	្ឍ 077	093	109	125
E	ណ 014	ថ 030	ព្រ 046	្ជ 062	្ណ 078	094	110	126
F	ត 015	ស 031	ង 047	្ឈ 063	្ត 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		
1	ခ 001	ထ 017	အ 033	ဲ 049	၁ 065	ဖ 081		
2	ဂ 002	ဒ 018	အာ 034	ော 050	၂ 066	ဗ 082		
3	ဃ 003	စ 019	အိ 035	ော် 051	၃ 067	ဗ 083		
4	င 004	န 020	ဤ 036	ံ 052	၄ 068	ဇ 084		
5	စ 005	ပ 021	ဥ 037	့ 053	၅ 069	ဇ 085		
6	ဆ 006	ဖ 022	ဦ 038	့ 054	၆ 070	ဇ 086		
7	ဇ 007	ဗ 023	ဇ 039	ံ 055	၇ 071	ဇ 087		
8	ဈ 008	ဘ 024	အံ 040	ံ 056	၈ 072	ဇ 088		
9	ဉ 009	ဗ 025	ဩ 041	ံ 057	၉ 073	ဇ 089		
A	ည 010	ယ 026	ဩ 042		ါ 074			
B	ဋ 011	ရ 027	ါ 043		ါ 075			
C	ဌ 012	လ 028	ံ 044		ါ 076			
D	ဍ 013	ဝ 029	ံ 045		ါ 077			
E	ဎ 014	သ 030	ံ 046		ါ 078			
F	ဏ 015	တ 031	ံ 047		ါ 079			

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. thakkyuik, 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			