

Universal Multiple-Octet Coded Character Set
 International Organization for Standardization
 Organisation Internationale de Normalisation
 Международная организация по стандартизации

Doc Type: Working Group Document**Title: Proposal for encoding additional Myanmar characters for Shan in the UCS****Source: Michael Everson****Status: Individual Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Date: 2007-08-28**

New information has come to light about the Shan extensions under ballot in FPDAM4. Seventeen characters should be added to the ballot and the characters should be re-arranged as shown in the code table below. In that table, the characters on the current ballot are given with blue shading, and the new characters which should be added are given in yellow.

Additional letters

The letter ၹ LETTER SHAN THA is used in Shan to represent a foreign sound. Four other such letters exist: ၸ LETTER SHAN GA contrasts with Burmese ဂ LETTER GA; ၺ LETTER SHAN ZA is unique but in one Shan Pali orthography it answers to Burmese ဟ LETTER JHA; ၻ LETTER SHAN DA contrasts with Burmese ဒ LETTER DA; and ၼ LETTER SHAN BA contrasts with Burmese ဝ LETTER BA.

Additional digits

Since the 1960s Shan digits have been used alongside Myanmar and European digits.

Additional symbols

The character ၿ SYMBOL SHAN ONE is used as a “measure” word; it is not a digit. Although it looks similar to ၿ VOWEL SIGN SHAN AA with ၿ SIGN ANUSVARA, it is not a combining character. The character ၾ SYMBOL SHAN EXCLAMATION is used to represent exclamations like English “Oh! Alas! Ah!”.

Shan Council tones

The analysis made of Shan Council tones in N3143 was incomplete. Shan Council orthography marked four tones: ၿ *ka*¹ is unmarked, ၿ *ka*² uses SIGN SHAN COUNCIL TONE-2, ၿ *ka*³ uses SIGN SHAN COUNCIL TONE-3, ၿ *ka*⁴ uses SIGN VISARGA, ၿ *ka*⁵ uses SIGN SHAN TONE-5. In FPDAM4 ၿ *ka*² SIGN SHAN COUNCIL TONE-2 is missing, and ၿ *ka*³ is mistakenly named SIGN SHAN COUNCIL TONE-4 (it should be SIGN SHAN COUNCIL TONE-3).

Glyph changes

The letter ၿ LETTER SHAN NYA on the ballot is not shown with the preferred shape. ၿ should be used. The glyph of ၿ SIGN SHAN COUNCIL TONE-3 on the ballot is slightly too high. The correct proportions: ၿ: ၿ: ၿ. The Unicode Standard may wish to cross-reference U+1037, U+1085, and U+108B.

Ordering

The unified order for the Myanmar script incorporating the characters here (and those previously accepted for encoding) is given below. Ordering is syllable-based, so this is indicative of only one level of ordering. The Shan, Karen, and Kayah characters currently on the ballot are shown below in italics.

ka < shan-ka < kha < shan-kha < ga < shan ga < gha < nga < mon-nga <
ca < shan-ca < cha < ja < shan za < jha < mon-jha < sgaw-karen-sha < nya < shan-nya < nnya <
tta < ttha < dda < ddha < nna < eastern-pwo-karen-nna <
ta < tha < da < shan da < dha < na < shan-na <
pa < pha < shan-pha < shan-fa < rumai-palaung-fa < ba < shan ba < bha < ma <
ya < ra < la < wa < shan-tha < sha < ssa < western-pwo-karen-tha < sa < great-sa < ha < shan-ha <
lla < mon-bba < eastern-pwo-karen-ywa < eastern-pwo-karen-gwa <
a < shan-a < kayah-oe < i < ii < u < kayah-u < kayah-ee < uu <
vocalic-r < vocalic-rr < vocalic-l < vocalic-ll < e < mon-bbe < western-pwo-karen-pwa < mon-e < o < au

Unicode Character Properties

1022;MYANMAR LETTER SHAN A;Lo;0;L;;;;N;;;;;
1065;MYANMAR LETTER WESTERN PWO KAREN THA;Lo;0;L;;;;N;;;;;
1066;MYANMAR LETTER WESTERN PWO KAREN PWA;Lo;0;L;;;;N;;;;;
1067;MYANMAR VOWEL SIGN WESTERN PWO KAREN EU;Mc;0;L;;;;N;;;;;
1068;MYANMAR VOWEL SIGN WESTERN PWO KAREN UE;Mc;0;L;;;;N;;;;;
1069;MYANMAR SIGN WESTERN PWO KAREN TONE-1;Mc;0;L;;;;N;;;;;
106A;MYANMAR SIGN WESTERN PWO KAREN TONE-2;Mc;0;L;;;;N;;;;;
106B;MYANMAR SIGN WESTERN PWO KAREN TONE-3;Mc;0;L;;;;N;;;;;
106C;MYANMAR SIGN WESTERN PWO KAREN TONE-4;Mc;0;L;;;;N;;;;;
106D;MYANMAR SIGN WESTERN PWO KAREN TONE-5;Mc;0;L;;;;N;;;;;
106E;MYANMAR LETTER EASTERN PWO KAREN NNA;Lo;0;L;;;;N;;;;;
106F;MYANMAR LETTER EASTERN PWO KAREN YWA;Lo;0;L;;;;N;;;;;
1070;MYANMAR LETTER EASTERN PWO KAREN GHWA;Lo;0;L;;;;N;;;;;
1071;MYANMAR VOWEL SIGN GEBA KAREN I;Mn;0;NSM;;;;N;;;;;
1072;MYANMAR VOWEL SIGN KAYAH OE;Mn;0;NSM;;;;N;;;;;
1073;MYANMAR VOWEL SIGN KAYAH U;Mn;0;NSM;;;;N;;;;;
1074;MYANMAR VOWEL SIGN KAYAH EE;Mn;0;NSM;;;;N;;;;;
1075;MYANMAR LETTER SHAN KA;Lo;0;L;;;;N;;;;;
1076;MYANMAR LETTER SHAN KHA;Lo;0;L;;;;N;;;;;
1077;MYANMAR LETTER SHAN GA;Lo;0;L;;;;N;;;;;
1078;MYANMAR LETTER SHAN CA;Lo;0;L;;;;N;;;;;
1079;MYANMAR LETTER SHAN ZA;Lo;0;L;;;;N;;;;;
107A;MYANMAR LETTER SHAN NYA;Lo;0;L;;;;N;;;;;
107B;MYANMAR LETTER SHAN DA;Lo;0;L;;;;N;;;;;
107C;MYANMAR LETTER SHAN NA;Lo;0;L;;;;N;;;;;
107D;MYANMAR LETTER SHAN PHA;Lo;0;L;;;;N;;;;;
107E;MYANMAR LETTER SHAN FA;Lo;0;L;;;;N;;;;;
107F;MYANMAR LETTER SHAN BA;Lo;0;L;;;;N;;;;;
1080;MYANMAR LETTER SHAN THA;Lo;0;L;;;;N;;;;;
1081;MYANMAR LETTER SHAN HA;Lo;0;L;;;;N;;;;;
1082;MYANMAR CONSONANT SIGN SHAN MEDIAL WA;Mn;0;NSM;;;;N;;;;;
1083;MYANMAR VOWEL SIGN SHAN AA;Mc;0;L;;;;N;;;;;
1084;MYANMAR VOWEL SIGN SHAN E;Mc;0;NSM;;;;N;;;;;
1085;MYANMAR VOWEL SIGN SHAN E ABOVE;Mn;0;NSM;;;;N;;;;;
1086;MYANMAR VOWEL SIGN SHAN FINAL Y;Mn;0;NSM;;;;N;;;;;
1087;MYANMAR SIGN SHAN TONE-2;Mc;0;L;;;;N;;;;;
1088;MYANMAR SIGN SHAN TONE-3;Mc;0;L;;;;N;;;;;
1089;MYANMAR SIGN SHAN TONE-5;Mc;0;L;;;;N;;;;;
108A;MYANMAR SIGN SHAN TONE-6;Mc;0;L;;;;N;;;;;
108B;MYANMAR SIGN SHAN COUNCIL TONE-2;Mc;0;L;;;;N;;;;;
108C;MYANMAR SIGN SHAN COUNCIL TONE-3;Mc;0;L;;;;N;;;;;
108D;MYANMAR SIGN SHAN COUNCIL EMPHATIC TONE;Mn;0;NSM;;;;N;;;;;
108E;MYANMAR VOWEL SIGN RUMAI PALAUNG FA;Lo;0;L;;;;N;;;;;
108F;MYANMAR SIGN RUMAI PALAUNG TONE-6;Mc;0;L;;;;N;;;;;
1090;MYANMAR SHAN DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
1091;MYANMAR SHAN DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
1092;MYANMAR SHAN DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
1093;MYANMAR SHAN DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
1094;MYANMAR SHAN DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
1095;MYANMAR SHAN DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
1096;MYANMAR SHAN DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
1097;MYANMAR SHAN DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
1098;MYANMAR SHAN DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
1099;MYANMAR SHAN DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
109E;MYANMAR SYMBOL SHAN ONE;Po;0;L;;;;N;;;;;
109F;MYANMAR SYMBOL SHAN EXCLAMATION;Po;0;L;;;;N;;;;;

Figures

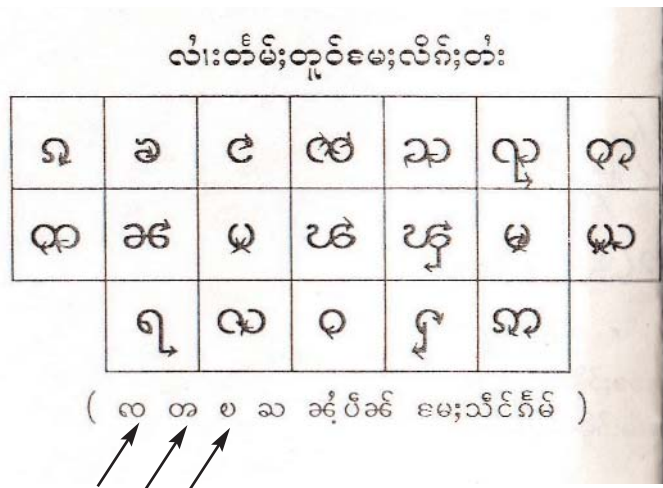


Figure 1. Sample from the 1997 *Shan Reader for Kindergarten*, showing
 ၈၀ LETTER SHAN ZA, ၀၂ LETTER SHAN DA, and ၀၂ LETTER SHAN BA.

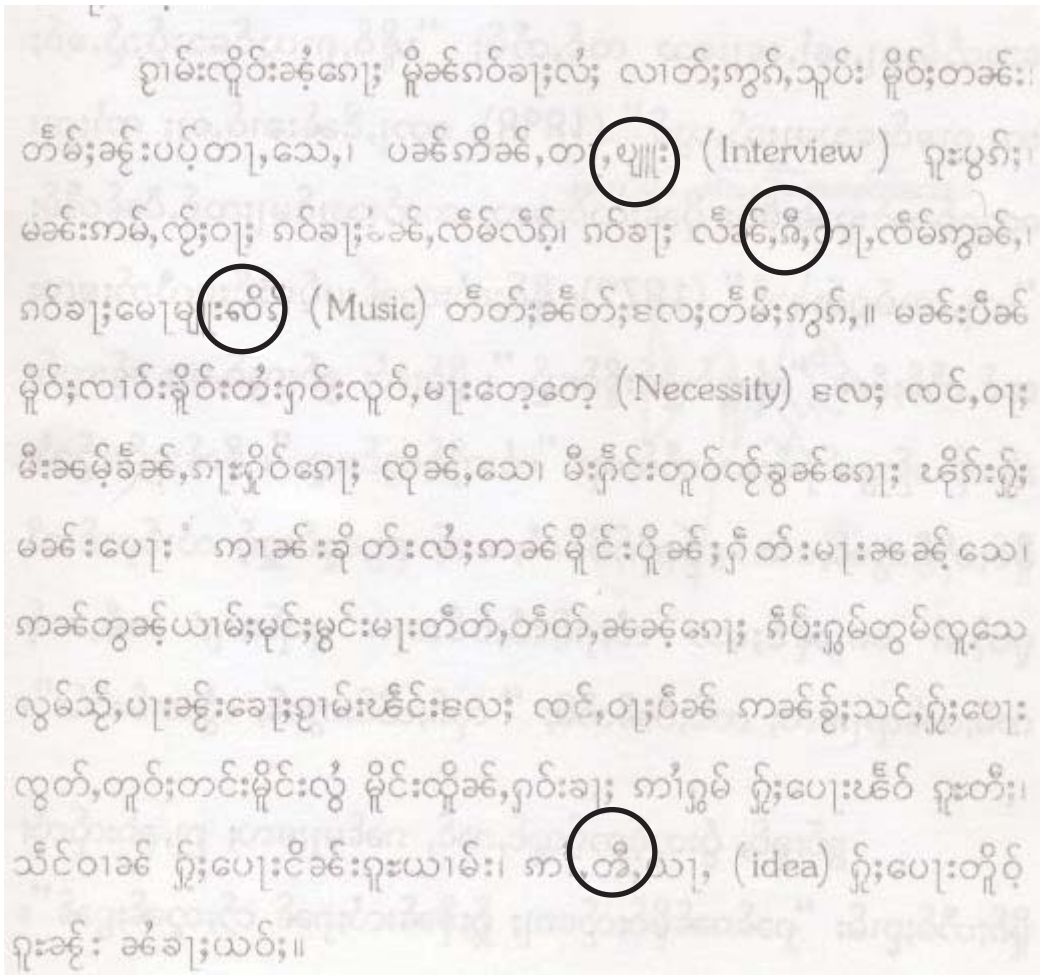


Figure 2. Sample from Sai Hkam Leik’s 1999 *Songs for the Highland*, Volume I,
 showing ၀၂ LETTER SHAN BA, ၀၂ LETTER SHAN GA, ၀၂ LETTER SHAN ZA, and ၀၂ LETTER SHAN DA.



Figure 3. Sample from the 1985 *Shan Reader for Kindergarten*, showing ရ် SYMBOL SHAN EXCLAMATION.

ဗူးခဆတင်း၊ ဗူးပိုတ်၊ပင်း၊ ဗူးကရ်လင်သူဆ်းတုမ်ခလးဗူးကွဆ်ရှင်ဆမ်းဆးဆ်း တီးပွင်၊စေး
 ရှင်ရှိုက်မဆ်းပီဂ်၊ပိုင်းဂဆ်းသေတၢ် တီးကဆ်ဂူဆ်းဆပ်းစံးလှ်-လၢတ်းလၢစၢဆ်းတၢ်ဆ်း-ရှိုတ်းသၢင်း
 ခိုင်ပွင် လူရ်းတင်းလုဆ်းပွဲ၊သူဆ်းတှ် ပုဆ်းတၢ်ဂူဆ်းတင်းလံာ်ဆ်းစတု လုဂ်တီးလီဝ်ဂဆ် ပီဆ်မး
 လွဆ်းလွဆ်း။ ဂမ်းဗွင်းဝး၊လွင်းပိုတ်၊ပၢဂ်းခဆ်တင်း၊ လွင်းရှိုတ်းလံးပီဆ်လံးခလး လွင်းကွဆ်ရှင်ဆ်
 ကမ်၊မိုဆ်ဂဆ်၊ မၢင်ဂေၤမၢင်လိုင်းဆ် မေကဆ်၊ ဂမ်၊မေကဆ်၊ လၢင်းလံး၊ ဂမ်၊လၢင်းလံး၊
 ရှုလွင်း၊ ကမ်၊ရှုလွင်း၊-ဆ်ယဝ်။

Figure 4. Sample from Hkwan Hseng's 1997 *Who's Who in the Shan State*, ၵ SYMBOL SHAN ONE.

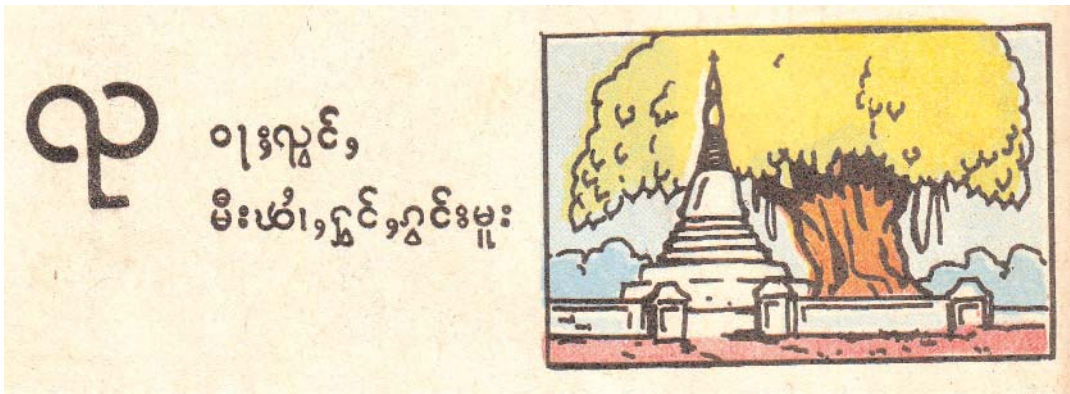


Figure 5. Sample from the 1985 *Shan Reader for Kindergarten*, showing the preferred form of လူ LETTER SHAN NYA.

တူဝ်မေ;လိက်;တံး သိမ်းဂမ်းတူဝ်

ဂ	ခ	င
လ	သ	ဇ (circled)
တ	ထ	ဆ
ပ	ဗ	ဗှ
မ	ယ	ရ
လ	ဝ	ှ
	က	

Figure 6. Sample from the 1997 Shan Reader for Kindergarten, showing the preferred form of ဇ LETTER SHAN NYA.

ဂုခ်သွခ် ၂။

ဂ + က = ဂ

ဂ ဂ· ဂ·· ဂး ဂ.

-ဂ -ဂ· -ဂ·· -ဂး -ဂ.

Figure 7. Sample from a Shan Council reader, showing ဂ ka¹, ဂ· ka² with SIGN SHAN COUNCIL TONE-2, ဂ·· ka³ with SIGN SHAN COUNCIL TONE-3, ဂး ka⁴ with SIGN VISARGA, and ဂ. ka⁵ with SIGN SHAN TONE-5. Note specifically the height of the dot in SIGN SHAN COUNCIL TONE-2 is the same as that of the dots in SIGN SHAN COUNCIL TONE-3, while the dot in SIGN SHAN TONE-5, is aligned to the baseline as is the lower dot of SIGN VISARGA. Shan Council orthography does not use the non-spacing SIGN DOT BELOW as other orthographies do.

June လွန်လွန်း/လွန်လွန်း, မြန်မာ့သက္ကရာဇ်/မြန်မာ့သက္ကရာဇ် ၁၃၆၅-၁၃၆၆ ဝါးပေ, ၁၃၆၅ - ၁၃၆၆ - ဝါဆို

SUN	MON	TUE	WED	THU	FRI	SAT
၇ လွန်လွန်း, ဝါးပေ 1	၈ 2	၉ 3	၁၀ 4	၁၁ 5	၁၂ 6	၁၃ 7
၁၄ 8	၁၅ 9	၁၆ 10	၁၇ 11	၁၈ 12	၁၉ 13	၂၀ 14
၂၇ 15	၂၈ 16	၂၉ 17	၃၀ 18	၁ 19	၂ 20	၃ 21
၁၀ 22	၁၁ 23	၁၂ 24	၁၃ 25	၁၄ 26	၁၅ 27	၁၆ 28
၁၇ 29	၁၈ 30					

ထိုဂရုတ်-လံးရှင်းထူး မံးပေါင် - 294/2003 တီးကိတ်,ဇေယျ - သူလုပ်,ထီး

Figure 8. Sample of a 2003 calendar showing Shan digits alongside European digits and Myanmar digits.

ဂဏန်းတိုင်း Z

ပံးပေပံးတံး

၀ = သုခံ	၁၀ = သိပ်းခိုင်း	၁၀၀ = ခိုင်းတက်,
၁ = ခိုင်း	၂၀ = သားခိုင်း	၁,၀၀၀ = ခိုင်းရှင်
၂ = သွင်	၃၀ = သားသိပ်း	၁၀,၀၀၀ = ခိုင်းခိုင်း
၃ = သား	၄၀ = သီ,သိပ်း	၁၀၀,၀၀၀ = ခိုင်းသီခံ
၄ = သီ	၅၀ = ၅၅သိပ်း	၁,၀၀၀,၀၀၀ = ခိုင်းလားခံ
၅ = ၅၅	၆၀ = ရွက်သိပ်း	၁၀,၀၀၀,၀၀၀ = ခိုင်းလား
၆ = ရွက်	၇၀ = လီတီးသိပ်း	
၇ = လီတီး	၈၀ = ဝိတ်,သိပ်း	
၈ = ဝိတ်	၉၀ = ဂပ်းသိပ်း	
၉ = ဂပ်း		

မံးပံးပေပံး

+	= မံးလေး	()	= ခွပ်,ခိပ်
-	= မံးထွမ်း	()	= ခုတ်,ခွပ်,
x	= မံးဂုမ်း	()	= ကိုတ်,ခွပ်,
÷	= မံးလီဂ်,	{ }	= ခွပ်,ဂင်
=	= မံးခိုင်း (ခိပ်,ခိပ်)	[]	= ခွပ်,လွင်

တုးလိပ်းတိုင်းလွင်းခေပံး

(၁) ၈ + ၉ = ၁၇	(၂) ၆ - ၃ = ၃
သားလေးဂပ်း ခိုင်းသိပ်းသွင်	ဝိတ်,ထွမ်းသား ခိုင်း၅၅
(၂) ၃ x ၄ = ၁၂	(၃) ၆ + ၇ = ၁၃
သားဂုမ်း၅၅ ခိုင်းသိပ်း၅၅	ဝိတ်,လီဂ်,သွင် ခိုင်းသီ,
(၃) ၄ + ၁ = ၅	
၅၅လေးခိုင်း ခိုင်းဝိတ်,ထွမ်းသွင်	

Figure 9. Shan digits, from a 2005 Shan Reader..

Row 10: MYANMAR

	100	101	102	103	104	105	106	107	108	109
0	က	တ	ဣ	ု	ဝ	စ	ှ	ဃ	ဆ	၀
1	ခ	ထ	အ	ေ	၁	ဗ	ှ	ံ	ှ	၁
2	ဂ	ဒ	က	ဲ	၂	ဗ	ါ	ိ	ွ	၇
3	ဃ	စ	ဒိ	ိ	၃	ဗ	ှ	ံ	ှ	၇
4	င	န	ဩ	ဲ	၄	ဗ	ါ	ိ	ေ	၇
5	စ	င	ဣ	ိ	၅	ဗ	၁	ဂ	ိ	၈
6	ဆ	ဖ	ဣ	ံ	၆	ံ	ှ	မ	ံ	၉
7	ဇ	ဇ	ဇ	ံ	၇	ံ	ံ	ဂ	ံ	၉
8	ဈ	တ	ဇ	ံ	၈	ံ	ံ	ဂ	ံ	၉
9	ည	မ	ဩ	ံ	၉	ံ	ံ	ဂ	ံ	၉
A	ဩ	ယ	ဩ	ံ	၁	ံ	ံ	ဂ	ံ	
B	ဩ	ရ	ံ	ံ	၂	ံ	ံ	ဂ	ံ	
C	ဩ	လ	ံ	ံ	၃	ံ	ံ	ဂ	ံ	
D	ဩ	ဝ	ံ	ံ	၄	ံ	ံ	ဂ	ံ	
E	ဩ	သ	ံ	ံ	၅	ံ	ံ	ဂ	ံ	ါ
F	က	တ	ု	သ	ဏ	ှ	ဟ	မ	ံ	ှ

G = 00
P = 00

Row 10: MYANMAR

hex	Name
00	MYANMAR LETTER KA
01	MYANMAR LETTER KHA
02	MYANMAR LETTER GA
03	MYANMAR LETTER GHA
04	MYANMAR LETTER NGA
05	MYANMAR LETTER CA
06	MYANMAR LETTER CHA
07	MYANMAR LETTER JA
08	MYANMAR LETTER JHA
09	MYANMAR LETTER NYA
0A	MYANMAR LETTER NNYA
0B	MYANMAR LETTER TTA
0C	MYANMAR LETTER TTHA
0D	MYANMAR LETTER DDA
0E	MYANMAR LETTER DDHA
0F	MYANMAR LETTER NNA
10	MYANMAR LETTER TA
11	MYANMAR LETTER THA
12	MYANMAR LETTER DA
13	MYANMAR LETTER DHA
14	MYANMAR LETTER NA
15	MYANMAR LETTER PA
16	MYANMAR LETTER PHA
17	MYANMAR LETTER BA
18	MYANMAR LETTER BHA
19	MYANMAR LETTER MA
1A	MYANMAR LETTER YA
1B	MYANMAR LETTER RA
1C	MYANMAR LETTER LA
1D	MYANMAR LETTER WA
1E	MYANMAR LETTER SA
1F	MYANMAR LETTER HA
20	MYANMAR LETTER LLA
21	MYANMAR LETTER A
22	MYANMAR LETTER SHAN A
23	MYANMAR LETTER I
24	MYANMAR LETTER II
25	MYANMAR LETTER U
26	MYANMAR LETTER UU
27	MYANMAR LETTER E
28	MYANMAR LETTER MON E
29	MYANMAR LETTER O
2A	MYANMAR LETTER AU
2B	MYANMAR VOWEL SIGN TALL AA
2C	MYANMAR VOWEL SIGN AA
2D	MYANMAR VOWEL SIGN I
2E	MYANMAR VOWEL SIGN II
2F	MYANMAR VOWEL SIGN U
30	MYANMAR VOWEL SIGN UU
31	MYANMAR VOWEL SIGN E
32	MYANMAR VOWEL SIGN AI
33	MYANMAR VOWEL SIGN MON II
34	MYANMAR VOWEL SIGN MON O
35	MYANMAR VOWEL SIGN E ABOVE
36	MYANMAR SIGN ANUSVARA
37	MYANMAR SIGN DOT BELOW
38	MYANMAR SIGN VISARGA
39	MYANMAR SIGN VIRAMA
3A	MYANMAR SIGN ASAT
3B	MYANMAR CONSONANT SIGN MEDIAL YA
3C	MYANMAR CONSONANT SIGN MEDIAL RA
3D	MYANMAR CONSONANT SIGN MEDIAL WA
3E	MYANMAR CONSONANT SIGN MEDIAL HA
3F	MYANMAR LETTER GREAT SA
40	MYANMAR DIGIT ZERO
41	MYANMAR DIGIT ONE
42	MYANMAR DIGIT TWO
43	MYANMAR DIGIT THREE
44	MYANMAR DIGIT FOUR
45	MYANMAR DIGIT FIVE
46	MYANMAR DIGIT SIX
47	MYANMAR DIGIT SEVEN
48	MYANMAR DIGIT EIGHT
49	MYANMAR DIGIT NINE
4A	MYANMAR SIGN LITTLE SECTION
4B	MYANMAR SIGN SECTION
4C	MYANMAR SYMBOL LOCATIVE
4D	MYANMAR SYMBOL COMPLETED
4E	MYANMAR SYMBOL AFOREMENTIONED
4F	MYANMAR SYMBOL GENITIVE
50	MYANMAR LETTER SHA
51	MYANMAR LETTER SSA
52	MYANMAR LETTER VOCALIC R
53	MYANMAR LETTER VOCALIC RR
54	MYANMAR LETTER VOCALIC L
55	MYANMAR LETTER VOCALIC LL
56	MYANMAR VOWEL SIGN VOCALIC R
57	MYANMAR VOWEL SIGN VOCALIC RR
58	MYANMAR VOWEL SIGN VOCALIC L

hex	Name
59	MYANMAR VOWEL SIGN VOCALIC LL
5A	MYANMAR LETTER MON NGA
5B	MYANMAR LETTER MON JHA
5C	MYANMAR LETTER MON BBA
5D	MYANMAR LETTER MON BBE
5E	MYANMAR CONSONANT SIGN MON MEDIAL NA
5F	MYANMAR CONSONANT SIGN MON MEDIAL MA
60	MYANMAR CONSONANT SIGN MON MEDIAL LA
61	MYANMAR LETTER SGAW KAREN SHA
62	MYANMAR LETTER SGAW KAREN EU
63	MYANMAR SIGN SGAW KAREN HATHI
64	MYANMAR SIGN SGAW KAREN KE PHO
65	MYANMAR LETTER WESTERN PWO KAREN THA
66	MYANMAR LETTER WESTERN PWO KAREN PWA
67	MYANMAR VOWEL SIGN WESTERN PWO KAREN EU
68	MYANMAR VOWEL SIGN WESTERN PWO KAREN UE
69	MYANMAR SIGN WESTERN PWO KAREN TONE-1
6A	MYANMAR SIGN WESTERN PWO KAREN TONE-2
6B	MYANMAR SIGN WESTERN PWO KAREN TONE-3
6C	MYANMAR SIGN WESTERN PWO KAREN TONE-4
6D	MYANMAR SIGN WESTERN PWO KAREN TONE-5
6E	MYANMAR LETTER EASTERN PWO KAREN NNA
6F	MYANMAR LETTER EASTERN PWO KAREN YWA
70	MYANMAR LETTER EASTERN PWO KAREN GHWA
71	MYANMAR VOWEL SIGN GEBA KAREN I
72	MYANMAR VOWEL SIGN KAYAH OE
73	MYANMAR VOWEL SIGN KAYAH U
74	MYANMAR VOWEL SIGN KAYAH EE
75	MYANMAR LETTER SHAN KA
76	MYANMAR LETTER SHAN KHA
77	MYANMAR LETTER SHAN GA
78	MYANMAR LETTER SHAN CA
79	MYANMAR LETTER SHAN ZA
7A	MYANMAR LETTER SHAN NYA
7B	MYANMAR LETTER SHAN DA
7C	MYANMAR LETTER SHAN NA
7D	MYANMAR LETTER SHAN PHA
7E	MYANMAR LETTER SHAN FA
7F	MYANMAR LETTER SHAN BA
80	MYANMAR LETTER SHAN THA
81	MYANMAR LETTER SHAN HA
82	MYANMAR CONSONANT SIGN SHAN MEDIAL WA
83	MYANMAR VOWEL SIGN SHAN AA
84	MYANMAR VOWEL SIGN SHAN E
85	MYANMAR VOWEL SIGN SHAN E ABOVE
86	MYANMAR VOWEL SIGN SHAN FINAL Y
87	MYANMAR SIGN SHAN TONE-2
88	MYANMAR SIGN SHAN TONE-3
89	MYANMAR SIGN SHAN TONE-5
8A	MYANMAR SIGN SHAN TONE-6
8B	MYANMAR SIGN SHAN COUNCIL TONE-2
8C	MYANMAR SIGN SHAN COUNCIL TONE-3
8D	MYANMAR SIGN SHAN COUNCIL EMPHATIC TONE
8E	MYANMAR VOWEL SIGN RUMAI PALAUNG FA
8F	MYANMAR SIGN RUMAI PALAUNG TONE-5
90	MYANMAR SHAN DIGIT ZERO
91	MYANMAR SHAN DIGIT ONE
92	MYANMAR SHAN DIGIT TWO
93	MYANMAR SHAN DIGIT THREE
94	MYANMAR SHAN DIGIT FOUR
95	MYANMAR SHAN DIGIT FIVE
96	MYANMAR SHAN DIGIT SIX
97	MYANMAR SHAN DIGIT SEVEN
98	MYANMAR SHAN DIGIT EIGHT
99	MYANMAR SHAN DIGIT NINE
9A	(This position shall not be used)
9B	(This position shall not be used)
9C	(This position shall not be used)
9D	(This position shall not be used)
9E	MYANMAR SYMBOL SHAN ONE
9F	MYANMAR SYMBOL SHAN EXCLAMATION

A. Administrative

1. Title

Proposal for encoding additional Myanmar characters for Shan in the UCS.

2. Requester's name

Michael Everson

3. Requester type (Member body/Liaison/Individual contribution)

Individual contribution.

4. Submission date

2007-08-28

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

Yes.

6b. More information will be provided later

No.

B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

No.

Proposed name of script

1b. The proposal is for addition of character(s) to an existing block

Yes.

1c. Name of the existing block

Myanmar.

2. Number of characters in proposal

17

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

Category A.

4a. Proposed Level of Implementation (1, 2 or 3)

Level 2

4b. Is a rationale provided for the choice?

Yes.

4c. If YES, reference

Brahmic Level 2 implementation.

5a. Is a repertoire including character names provided?

Yes.

5b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

Yes.

5c. Are the character shapes attached in a legible form suitable for review?

Yes.

6a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

Michael Everson.

6b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, Fontographer.

7a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

No.

7b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

Yes.

8. Special encoding issues: Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

Yes.

9. Additional Information: Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

See above.

C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

No.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes.

2b. If YES, with whom?

Sai Zin Di Di Zone, Khwaan Tai, Sai Murngzuen Hengtai.

2c. If YES, available relevant documents

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

People in Myanmar.

4a. The context of use for the proposed characters (type of use; common or rare)

Common.

4b. Reference

5a. Are the proposed characters in current use by the user community?

Yes.

5b. If YES, where?

In Myanmar.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

Yes.

6b. If YES, is a rationale provided?

Yes.

6c. If YES, reference

Contemporary use and accordance with the Roadmap.

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

N/A.

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

Yes.

8b. If YES, is a rationale for its inclusion provided?

Some of the Shan tone marks look superficially like punctuation marks, but they are combining characters and typically have a hollow dot.

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No.

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

Yes.

10b. If YES, is a rationale for its inclusion provided?

Yes.

10c. If YES, reference

See “Issues” above.

11a. Does the proposal include use of combining characters and/or use of composite sequences?

Yes.

11b. If YES, is a rationale for such use provided?

Yes.

11c. If YES, reference

Brahmic vowel and consonant signs.

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

No.

11e. If YES, reference

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No.

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?