

Irish comments on ISO/IEC PDAM 2.2 10646:2012

Reference: SC2 N4239

Closes: 2012-10-03

Date: 2012-10-02

Ireland **disapproves** the draft with the technical and editorial comments given below. Acceptance of these comments and appropriate changes to the text will change our vote to approval. In the attached charts, characters proposed to be added to the PDAM are coloured in blue, and characters whose names or glyphs are proposed to be changed are coloured in yellow.

T1. **Page 44, Row A720:** Ireland reiterates its support for A78F LATIN LETTER MIDDLE DOT and opposes further attempts to delay or prevent the encoding of this character. We note the following facts:

- Andrew West proposed this character in N3567 (2009-01-24, revised 2009-04-04) on the basis that his scientific work in Tangut and 'Phags-Pa requires a letter for transliteration of the letter 𐞀 [?] whose transliteration is represented by a kind of dot, a use which goes back to Sinologists Dragonov in the 1930s and Karlgren in the 1940s and was taken over by Chinese scholars as well. Typography in these sources was not uniform, but a good practice can be established from them for modern use. We recommend the addition of an additional informative note to assist font developers and to reduce what the US National Body has suggested might be a measure of confusion about the character:

A78F LATIN LETTER MIDDLE DOT

- *used for transliteration for Phags-Pa and for phonetic transcription for Tangut*
- *glyph is about 50% larger than the dots of a colon and is centred on the x-height line*

An example can be seen here of what appears to be the clearest practice:

Tangut: •üge•ü: 'Phags-pa

- Andrew West clarified in N3694 (2009-10-05) the use of this character and its relation to other characters in the standard, since the Script Encoding Initiative had suggested that he might use either 00B7 MIDDLE DOT or 02D1 MODIFIER LETTER HALF TRIANGULAR COLON instead to represent this character. West demonstrated that 00B7 MIDDLE DOT is commonly used as a separator or joiner of the characters on either side of it. This is not consistent with West's stated requirement, which was to have a character with the properties of a *letter* to represent in transliteration the *letter* of another script.
- In N3678, the statement is made: "*The encoding of another middle dot for Phags-Pa is unnecessary, particularly as the middle dot is already use widely in linguistic transcription/transliteration and Americanist orthographies, and seems to be encoded on modern webpages by U+00B7 or U+02D1.*" This is irrelevant, because the things that the existing MIDDLE DOT is used for have nothing to do with the transliteration of the 'Phags-pa letter 𐞀.
- The SEI (and the US National Body in subsequent ballot comments) appear to have recognized that the character properties of 00B7 MIDDLE DOT were not appropriate, and have instead suggested that "*A viable alternative to encoding a separate letter middle dot,*

for the purposes cited by the original proposal, would be to use the already encoded modifier letter, U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON.”

- The fact that the US National Body has suggested the use of 02D1 indicates that they have accepted West’s requirement for a letter (a character with a letter property) rather than a punctuation character for the purposes of transliterating ’Phags-pa. The character that they have suggested, however, 02D1 MODIFIER LETTER HALF TRIANGULAR COLON, cannot be used for such a purpose. That character and its related character 02D0 MODIFIER LETTER TRIANGULAR COLON are both explicitly defined as being *triangular* and have been since their introduction in the International Phonetic Alphabet.
- In N3678, the statement is made: “*The result of encoding another middle dot will be to create yet another look-alike character.*” This is hardly a concern. Since 2009, 2E33 RAISED DOT and 2E31 WORD SEPARATOR DOT have both been encoded. Indeed, on the present PDAM 2, we can see the already-encoded 11066 BRAHMI DIGIT ZERO, which looks like a dot, and the under-ballot 11184 MAHAJANI ABBREVIATION SIGN, alongside the already-encoded 111C7 SHARADA ABBREVIATION SIGN, both of which are dotlike. The objections to the LATIN LETTER MIDDLE DOT are not consistent.
- In N3678, the statement is made: “*In my view, the best option for users is to use U+02D1 with a rounded glyph.*” It is not in the purview of the author of N3678, or of the US National Body, to alter by fiat the shape of the character 02D0 or 02D1 which exist distinct from MIDDLE DOT and from COLON to support the *explicitly-triangular* character used by the International Phonetic Association. In a recent discussion with a member of the Irish National Body, phonetician John C. Wells—a long-time member of the International Phonetic Association—made it clear that the idea that the 02D1 MODIFIER LETTER HALF TRIANGULAR COLON could have any other shape than triangular was quite out of the question.
- In N3678, the statement is made: “*This character is being used by linguists and others currently, is able to be found via search engines, and is found in both circular and triangular shapes.*” Again, this is irrelevant, because the things that either MIDDLE DOT (which has a circular shape) or MODIFIER LETTER HALF TRIANGULAR COLON (which has a triangular shape) are used for have nothing to do with the transliteration of ’Phags-pa ᠰ . Users of those characters will continue to use them and to enjoy their properties. West and other Sinologists require a different character, with different properties.

At the end of the day, the Irish National Body believes that a disservice has been done to Andrew West, who helped to encode ’Phags-pa, who is helping to encode Tangut, and who is a linguist and expert who clearly understands the UCS and the meaning of character properties. The US National Body has opposed the encoding of LATIN LETTER MIDDLE DOT, but they have acknowledged that a character with the “letter” property is a valid requirement of West. The character they have proposed, however, *cannot* be used for transliteration of ’Phags-pa ᠰ , because that would be disruptive of the character identity and recommended glyph shape for the IPA half-length mark.

The correct solution here is not for SC2 to continue to delay waiting for more argument, since no *new* argument has been offered since N3678. One NB has made its argument but has failed to offer a solution superior to the requested new character which is on the ballot. Their suggestion suggests that they agree that a character with a letter property should be used for this purpose but since 02D1 MODIFIER LETTER HALF TRIANGULAR COLON is not suitable and there is no other alternative, the Irish National Body requests that A78F LATIN LETTER MIDDLE DOT be encoded without further delay. It is already three years since West’s publication of his work on Tangut and ’Phags-pa linguistics has been put off due to this unnecessary impasse based on a superficial evaluation a glyph shape.

T2. **Page 56, Row 10C8: Old Hungarian.** With reference to §11 of ISO/IEC JTC1/SC2/WG2 N4268 “Consolidated proposal for encoding the Old Hungarian script in the UCS”, and to ISO/IEC JTC1/SC2/WG2 N4225 “Preliminary Proposal for encoding pre-combined and extended Rovas numerals into the Rovas block in the SMP of the UCS”, Ireland requests that the numbers from 10CF9..10CFD be shifted down to 10CFA..10CFE, filling the gap.

T3. **Page 88, Row 16B0: Pahawh Hmong.** With reference to ISO/IEC JTC1/SC2/WG2 N4298 “Additional evidence of use of Pahawh Hmong clan logographs”, Ireland requests that one character, PAHAWH HMONG CLAN SIGN PHAB, be added to the PDAM, and that the characters be arranged in Pahawh Hmong alphabetical order. We give below a table showing the order requested, the order in the 1990 and 1995 sources discussed in N4298.

1.	𑍑	𑍑𑍑	Tsheel	Cheng	15.	𑍑	𑍑𑍑	17.	𑍑	𑍑𑍑
2.	𑍒	𑍒𑍒	Yeeg	Yeng	1.	𑍒	𑍒𑍒	19.	—	𑍒𑍒
3.	𑍓	𑍓𑍓	Lis	Lee	2.	𑍓	𑍓𑍓	3.	𑍓	𑍓𑍓
4.	𑍔	𑍔𑍔	Lauj	Lor	3.	𑍔	𑍔𑍔	6.	𑍔	𑍔𑍔
5.	𑍕	𑍕𑍕	Xyooj	Xiong	4.	𑍕	𑍕𑍕	4.	𑍕	𑍕𑍕
6.	𑍖	𑍖𑍖	Koo	Kong	16.	𑍖	𑍖𑍖	16.	𑍖	𑍖𑍖
7.	𑍗	𑍗𑍗	Hawj	Her	5.	𑍗	𑍗𑍗	9.	𑍗	𑍗𑍗
8.	𑍘	𑍘𑍘	Muas	Moua	6.	𑍘	𑍘𑍘	7.	𑍘	𑍘𑍘
9.	𑍙	𑍙𑍙	Thoj	Thao	7.	𑍙	𑍙𑍙	5.	𑍙	𑍙𑍙
10.	𑍚	𑍚𑍚	Tsab	Chang	8.	𑍚	𑍚𑍚	2.	𑍚	𑍚𑍚
11.	𑍛	𑍛𑍛	Phab	Phang	19.	—	—	15.	𑍛	𑍛𑍛
12.	𑍜	𑍜𑍜	Khab	Khang	9.	𑍜	𑍜𑍜	18.	𑍜	𑍜𑍜
13.	𑍝	𑍝𑍝	Ham	Hang	10.	𑍝	𑍝𑍝	12.	𑍝	𑍝𑍝
14.	𑍞	𑍞𑍞	Vaj	Vang	11.	𑍞	𑍞𑍞	1.	𑍞	𑍞𑍞
15.	𑍟	𑍟𑍟	Faj	Fang	17.	𑍟	𑍟𑍟	14.	𑍟	𑍟𑍟
16.	𑍠	𑍠𑍠	Yaj	Yang	12.	𑍠	𑍠𑍠	8.	𑍠	𑍠𑍠
17.	𑍡	𑍡𑍡	Tswb	Chue	18.	𑍡	𑍡𑍡	13.	𑍡	𑍡𑍡
18.	𑍢	𑍢𑍢	Kwm	Kw	13.	𑍢	𑍢𑍢	11.	𑍢	𑍢𑍢
19.	𑍣	𑍣𑍣	Vwj	Vue	14.	𑍣	𑍣𑍣	10.	𑍣	𑍣𑍣

T4. **Page 95, Row 1E8D: Mende Numbers.** With reference to ISO/IEC JTC1/SC2/WG2 N4311 “Proposal for Nine Mende Digit Characters” and to JTC1/SC2/WG2 N4167 “Revised proposal for encoding the Mende script in the SMP of the UCS”, Ireland requests that the complete set of Mende numbers proposed in the latter document be encoded in the standard either in a separate block of Mende numbers from 1E8D0..1E91F, or as a part of the Mende block as proposed in N4167. In our view the arguments given for atomic encoding of the numbers far outweighs any advantage to encoding them otherwise. The two-column block on the ballot appears to assume a decomposed model for Mende numbers, which was not preferred by the proposers of Mende. If the full set of numbers is not to be encoded, then Ireland requests that Mende numbers be removed entirely from the PDAM. An incomplete system will not serve the users of the Mende script.

T5. **Page 99, Row 1F30: Miscellaneous Symbols and Pictographs.** Ireland requests the following change:

1F3CF RACE CAR
Move character to 1F3CE.

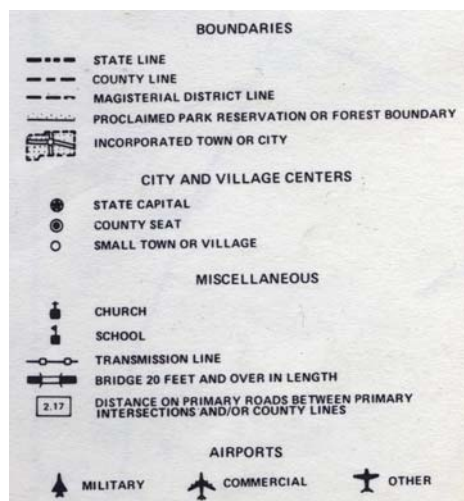
T6. **Page 114, Row 1F68: Transport and Map Symbols.** Ireland requests the following changes:

1F6CD TWO SHOPPING BAGS
Change name to SHOPPING BAGS or SHOPPING; the postscript name is “shopping”
1F6D0 BELLHOP BELL
Move character to 1F6CE
1F6E7 SMALL AIRPLANE
Move character to 1F6E8
1F6EE SATELLITE
Move character to 1F6F0
1F6F2 ONCOMING FIRE ENGINE
Move character to 1F6F1
1F6F4 DIESEL LOCOMOTIVE
Move character to 1F6F2

T7. **Page 114, Row 1F68: Transport and Map Symbols.** Ireland requests two character additions, along with additional annotations to one character already on the ballot.

1F6E6 MILITARY AIRPLANE
• military airport
1F6E7 UP-POINTING AIRPLANE
• commercial airport
1F6E8 SMALL AIRPLANE
• airfield

The postscript name for 1F6E8 SMALL AIRPLANE is “planesmall”, indicating a kind of small aircraft. the Webdings glyph shown in perspective is hard to identify and too “pictorial”. Further, we have found evidence for the SMALL AIRPLANE character used not only as a Webdings dingbat, but as a Transport and Map symbol used alongside MILITARY AIRPLANE and UP-POINTING AIRPLANE to indicate different kinds of airports.



At the bottom of the legend here three airports, “military”, “commercial” and “other” are indicated with three types of aircraft. The map from which this legend comes is a map of Northampton County published in 1989 by the Virginia Department of Transportation in cooperation with the U.S. Department of Transportation’s Federal Highway Administration.



- E1. **Page 12, Row 060: Arabic.** Ireland requests clarification of the note to 061C ARABIC LETTER MARK. It states “similar to RLM but with right-to-left Arabic”. With right-to-left Arabic what?
- E2. **Page 27, Row 1CD: Vedic Extensions.** Ireland requests that the two characters at 1CF8-1CF9 be represented with the correctly sized dotted circle.
- E3. **Page 35, Row 200: General Punctuation.** Ireland requests some kind of annotation which will explain what the character name for 2069 “POP DIRECTIONAL ISOLATE” means.
- E4. **Page 36, Row 20A: Currency Symbols.** With reference to typographic discussion at <http://typophile.com/node/90604> and to the glyphs in ISO/IEC JTC1/SC2/WG2 N4308 “Proposal for one historic currency character, MARK SIGN”, Ireland requests glyph changes for 20BA and 20BB, to the following:



- E5. **Page 48, Row A9E: Myanmar Extended-B.** Ireland requests corrections to fix the winding errors in A9F2 and A9F5.
- E6. **Page 49, Row A9E: Myanmar Extended-A.** Ireland requests corrections to fix the winding errors in AA7E and AA7F.
- E7. **Page 52, Row 1019: Ancient Symbols.** While it is true that the character is different from 2CE8 COPTIC SYMBOL TAU RO, it nevertheless should harmonize in a reasonable way with a Greek font. Ireland requests a glyph change for 101A0, to one of the two glyphs below.



- E8. **Page 59, Row 1100: Brahmi.** Ireland requests requests a correction to fix the winding error in 11034.
- E9. **Page 99, Row 1F30: Miscellaneous Symbols and Pictographs.** Ireland requests the following changes:

1F3CB WEIGHT LIFTER

Change glyph as shown below; it is more similar to the original Webdings glyph as far as we can determine.

1F3CD MOTORCYCLE

Change glyph as shown below; the Webdings glyph shown in perspective is hard to identify and too “pictorial”.

1F43F CHIPMUNK

Change glyph as shown below; a white glyph is more similar to the other animal glyphs in this block.



T6. **Page 114, Row 1F68: Transport and Map Symbols.** Ireland requests the following changes:

1F6CD TWO SHOPPING BAGS

Change glyph so it is simpler; the Wingdings glyphs look like fast-food french fries.

1F6E7 SMALL AIRPLANE

Change glyph to be up-pointing small-propeller aircraft seen from above (see T7 above). Note that the glyph proposed here is not identical to the one proposed for PDAM 2.

1F6F4 DIESEL LOCOMOTIVE

The postscript name for this character is “train”. The editor made the following assertions in his disposition of comments: “*The glyph for [1F6F4] is a very generic train.*” Yes, so it is; but the postscript name for the Webdings character is the same very generic “train”. “*The character at 1F6D2 represents clearly a long diesel engine train.*” We believe that the character represents a “train”; its glyph could be anything. “*Similarly to what is done for other train type (1F682..1F685), the glyph could be redone in a compatible way to represent such a train.*” While we have misgivings about the character identity, we have provided a glyph which is similar to the glyphs for 1FF684 HIGH-SPEED TRAIN and 1F685 HIGH-SPEED TRAIN WITH BULLET NOSE.



	16B0	16B1	16B2	16B3	16B4	16B5	16B6	16B7	16B8
0	ᠠ	ᠡ	ᠢ	ᠣ	ᠤ	ᠶ	ᠸ	ᠹ	ᠺ
1	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ
2	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ
3	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ
4	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ
5	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ
6	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ
7	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ
8	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ
9	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ
A	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ
B	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ
C	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ
D	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ
E	ᠾ	ᠿ	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ
F	ᠰ	ᠱ	ᠻ	ᠼ	ᠽ	ᠾ	ᠿ	ᠰ	ᠱ

UTC: 2012-02-08
 WG2: \$\$\$\$
 contact: Michael
 Everson
 document: L2/12-013
 N4175
 font:
 target: Amd 2

The character names used for Pahawh Hmong vowel rimes and consonant onsets follow the Third Stage Reduced Version orthography. Annotations give the character names in the Second Stage Reduced Version orthography.

Vowel rimes

16B00	𐄂	PAHAWH HMONG VOWEL KEEB = keem
16B01	𐄃	PAHAWH HMONG VOWEL KEEV = kee
16B02	𐄄	PAHAWH HMONG VOWEL KIB = kim
16B03	𐄅	PAHAWH HMONG VOWEL KIV = ki
16B04	𐄆	PAHAWH HMONG VOWEL KAUB = kaum
16B05	𐄇	PAHAWH HMONG VOWEL KAUV = kau
16B06	𐄈	PAHAWH HMONG VOWEL KUB = kum
16B07	𐄉	PAHAWH HMONG VOWEL KUV = ke
16B08	𐄊	PAHAWH HMONG VOWEL KEB = kem
16B09	𐄋	PAHAWH HMONG VOWEL KEV = keem
16B0A	𐄌	PAHAWH HMONG VOWEL KAIB = kaim
16B0B	𐄍	PAHAWH HMONG VOWEL KAIV = kai
16B0C	𐄎	PAHAWH HMONG VOWEL KOOB = koem
16B0D	𐄏	PAHAWH HMONG VOWEL KOOV = koo
16B0E	𐄐	PAHAWH HMONG VOWEL KAWB = kaw
16B0F	𐄑	PAHAWH HMONG VOWEL KAWV = kaw
16B10	𐄒	PAHAWH HMONG VOWEL KUAB = kuam
16B11	𐄓	PAHAWH HMONG VOWEL KUAU = kua
16B12	𐄔	PAHAWH HMONG VOWEL KOB = kom
16B13	𐄕	PAHAWH HMONG VOWEL KOV = kog
16B14	𐄖	PAHAWH HMONG VOWEL KIAB = kiem
16B15	𐄗	PAHAWH HMONG VOWEL KIAV = kia
16B16	𐄘	PAHAWH HMONG VOWEL KAB = kam
16B17	𐄙	PAHAWH HMONG VOWEL KAV = keem
16B18	𐄚	PAHAWH HMONG VOWEL KWB = kwm
16B19	𐄛	PAHAWH HMONG VOWEL KVV = keem
16B1A	𐄜	PAHAWH HMONG VOWEL KAAB = kaam
16B1B	𐄝	PAHAWH HMONG VOWEL KAAV = kaam

Consonant onsets

16B1C	𐄞	PAHAWH HMONG CONSONANT VAU
16B1D	𐄟	PAHAWH HMONG CONSONANT NTAU
16B1E	𐄠	PAHAWH HMONG CONSONANT LAU
16B1F	𐄡	PAHAWH HMONG CONSONANT HAU
16B20	𐄢	PAHAWH HMONG CONSONANT NLAU

16B21	𐄣	PAHAWH HMONG CONSONANT RAU
16B22	𐄤	PAHAWH HMONG CONSONANT NKAU
16B23	𐄥	PAHAWH HMONG CONSONANT QHAU
16B24	𐄦	PAHAWH HMONG CONSONANT YAU
16B25	𐄧	PAHAWH HMONG CONSONANT HLAU
16B26	𐄨	PAHAWH HMONG CONSONANT MAU
16B27	𐄩	PAHAWH HMONG CONSONANT CHAU
16B28	𐄪	PAHAWH HMONG CONSONANT NCHAU
16B29	𐄫	PAHAWH HMONG CONSONANT HNAU
16B2A	𐄬	PAHAWH HMONG CONSONANT PLHAU
16B2B	𐄭	PAHAWH HMONG CONSONANT NTHAU
16B2C	𐄮	PAHAWH HMONG CONSONANT NAU
16B2D	𐄯	PAHAWH HMONG CONSONANT AU
16B2E	𐄰	PAHAWH HMONG CONSONANT XAU
16B2F	𐄱	PAHAWH HMONG CONSONANT CAU

Combining diacritical marks

16B30	◌̣	PAHAWH HMONG MARK CIM TUB
16B31	◌̤	PAHAWH HMONG MARK CIM SO
16B32	◌̥	PAHAWH HMONG MARK CIM KES
16B33	◌̦	PAHAWH HMONG MARK CIM KHAV
16B34	◌̧	PAHAWH HMONG MARK CIM SUAM
16B35	◌̨	PAHAWH HMONG MARK CIM HOM
16B36	◌̩	PAHAWH HMONG MARK CIM TAUM

Punctuation

16B37	𐄲	PAHAWH HMONG SIGN VOS THOM = question mark
16B38	𐄳	PAHAWH HMONG SIGN VOS TSHAB CEEB = exclamation mark
16B39	𐄴	PAHAWH HMONG SIGN CIM CHEEM = comma
16B3A	𐄵	PAHAWH HMONG SIGN VOS THIAB = ampersand
16B3B	𐄶	PAHAWH HMONG SIGN VOS FEEM = percent sign
16B3C	𐄷	PAHAWH HMONG SIGN XYEEM NTXIV = plus sign
16B3D	𐄸	PAHAWH HMONG SIGN XYEEM RHO = minus sign
16B3E	𐄹	PAHAWH HMONG SIGN XYEEM TOV = multiplication sign
16B3F	𐄺	PAHAWH HMONG SIGN XYEEM FAIB = division sign
16B40	𐄻	PAHAWH HMONG SIGN VOS SEEV = chanting intonation
16B41	𐄼	PAHAWH HMONG SIGN MEEJ SUAB = foreign pronunciation
16B42	𐄽	PAHAWH HMONG SIGN VOS NRUA = reduplication
16B43	𐄾	PAHAWH HMONG SIGN IB YAM = replication, ditto
16B44	𐄿	PAHAWH HMONG SIGN XAUS • used to complete a section
16B45	𐅀	PAHAWH HMONG SIGN CIM TSOV ROG • used to indicate military topics

Digits

16B50	𐅁	PAHAWH HMONG DIGIT ZERO • some users prefer a circular glyph for this character
16B51	𐅂	PAHAWH HMONG DIGIT ONE

16B52	Ꞩ	PAHAWH HMONG DIGIT TWO
16B53	ꞩ	PAHAWH HMONG DIGIT THREE
16B54	Ɦ	PAHAWH HMONG DIGIT FOUR
16B55	Ɜ	PAHAWH HMONG DIGIT FIVE
16B56	Ɡ	PAHAWH HMONG DIGIT SIX
16B57	Ɬ	PAHAWH HMONG DIGIT SEVEN
16B58	Ɪ	PAHAWH HMONG DIGIT EIGHT
16B59	ꞯ	PAHAWH HMONG DIGIT NINE

Numbers

16B5B	Ʞ	PAHAWH HMONG NUMBER TENS = caum • some users prefer a vertical bar glyph for this character
16B5C	Ʇ	PAHAWH HMONG NUMBER HUNDREDS = pua
16B5D	Ʝ	PAHAWH HMONG NUMBER TEN THOUSANDS = vam
16B5E	Ꭓ	PAHAWH HMONG NUMBER MILLIONS = neev
16B5F	Ꞵ	PAHAWH HMONG NUMBER HUNDRED MILLIONS = taw
16B60	ꞵ	PAHAWH HMONG NUMBER TEN BILLIONS = ten thousand millions = ruav
16B61	Ꞷ	PAHAWH HMONG NUMBER TRILLIONS = billions = tas
























































































































Logographs

16B63	ꞷ	PAHAWH HMONG SIGN VOS LUB = classifier
16B64	Ꞹ	PAHAWH HMONG SIGN XYOO = year
16B65	ꞹ	PAHAWH HMONG SIGN HLI = month
16B66	Ꞻ	PAHAWH HMONG SIGN THIRD-STAGE HLI = month
16B67	ꞻ	PAHAWH HMONG SIGN ZWJ THAJ = date
16B68	Ꞽ	PAHAWH HMONG SIGN HNUB = day
16B69	ꞽ	PAHAWH HMONG SIGN NQIG = waning moon
16B6A	Ꞿ	PAHAWH HMONG SIGN XIAB = waxing moon
16B6B	ꞿ	PAHAWH HMONG SIGN NTUJ = season
16B6C	Ꞁ	PAHAWH HMONG SIGN AV = earth
16B6D	ꞁ	PAHAWH HMONG SIGN TXHEEJ CEEV = urgent
16B6E	Ꞃ	PAHAWH HMONG SIGN MEEJ TSEEB = facts
16B6F	ꞃ	PAHAWH HMONG SIGN TAU = received
16B70	Ꞅ	PAHAWH HMONG SIGN LOS = come
16B71	ꞅ	PAHAWH HMONG SIGN MUS = go

16B72	Ꞇ	PAHAWH HMONG SIGN CIM HAIS LUS NTOG NTOG = smooth
16B73	ꞇ	PAHAWH HMONG SIGN CIM CUAM TSHOOJ = fraction
16B74	ꞈ	PAHAWH HMONG SIGN CIM TXWV = do not open
16B75	꞉	PAHAWH HMONG SIGN CIM TXWV CHWV = do not touch
16B76	꞊	PAHAWH HMONG SIGN CIM PUB DAWB = give freely
16B77	Ꞌ	PAHAWH HMONG SIGN CIM NRES TOS = stop

Logographs for clan names

16B7D	ꞌ	PAHAWH HMONG CLAN SIGN TSHEEJ = Cheng
16B7E	Ɥ	PAHAWH HMONG CLAN SIGN YEEG = Yeng
16B7F	ꞎ	PAHAWH HMONG CLAN SIGN LIS = Lee
16B80	ꞏ	PAHAWH HMONG CLAN SIGN LAUJ = Lor
16B81	Ꞑ	PAHAWH HMONG CLAN SIGN XYOOJ = Xiong
16B82	ꞑ	PAHAWH HMONG CLAN SIGN KOO = Kong
16B83	Ꞓ	PAHAWH HMONG CLAN SIGN HAWJ = Her
16B84	ꞓ	PAHAWH HMONG CLAN SIGN MUAS = Moua
16B85	ꞔ	PAHAWH HMONG CLAN SIGN THOJ = Thao
16B86	ꞕ	PAHAWH HMONG CLAN SIGN TSAB = Chang
16B87	Ꞗ	PAHAWH HMONG CLAN SIGN PHAB = Phang
16B88	ꞗ	PAHAWH HMONG CLAN SIGN KHAB = Khang
16B89	Ꞙ	PAHAWH HMONG CLAN SIGN HAM = Hang
16B8A	ꞙ	PAHAWH HMONG CLAN SIGN VAJ = Vang
16B8B	Ꞛ	PAHAWH HMONG CLAN SIGN FAJ = Fang
16B8C	ꞛ	PAHAWH HMONG CLAN SIGN YAJ = Yang
16B8D	Ꞝ	PAHAWH HMONG CLAN SIGN TSWB = Chue
16B8E	ꞝ	PAHAWH HMONG CLAN SIGN KWM = Kw
16B8F	Ꞟ	PAHAWH HMONG CLAN SIGN VWJ = Vue

	1E80	1E81	1E82	1E83	1E84	1E85	1E86	1E87	1E88
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
A									
B									
C									
D									
E									
F									

	1E89	1E8A	1E8B	1E8C	1E8D	1E8E	1E8F	1E90	1E91
0	1E890	1E8A0	1E8B0	1E8C0	1E8D0	1E8E0	1E8F0	1E900	1E910
1	1E891	1E8A1	1E8B1	1E8C1	1E8D1	1E8E1	1E8F1	1E901	1E911
2	1E892	1E8A2	1E8B2	1E8C2	1E8D2	1E8E2	1E8F2	1E902	1E912
3	1E893	1E8A3	1E8B3	1E8C3	1E8D3	1E8E3	1E8F3	1E903	1E913
4	1E894	1E8A4	1E8B4	1E8C4	1E8D4	1E8E4	1E8F4	1E904	1E914
5	1E895	1E8A5	1E8B5	1E8C5	1E8D5	1E8E5	1E8F5	1E905	1E915
6	1E896	1E8A6	1E8B6	1E8C6	1E8D6	1E8E6	1E8F6	1E906	1E916
7	1E897	1E8A7	1E8B7	1E8C7	1E8D7	1E8E7	1E8F7	1E907	1E917
8	1E898	1E8A8	1E8B8	1E8C8	1E8D8	1E8E8	1E8F8	1E908	1E918
9	1E899	1E8A9	1E8B9	1E8C9	1E8D9	1E8E9	1E8F9	1E909	1E919
A	1E89A	1E8AA	1E8BA	1E8CA	1E8DA	1E8EA	1E8FA	1E90A	1E91A
B	1E89B	1E8AB	1E8BB	1E8CB	1E8DB	1E8EB	1E8FB	1E90B	1E91B
C	1E89C	1E8AC	1E8BC	1E8CC	1E8DC	1E8EC	1E8FC	1E90C	1E91C
D	1E89D	1E8AD	1E8BD	1E8CD	1E8DD	1E8ED	1E8FD	1E90D	1E91D
E	1E89E	1E8AE	1E8BE	1E8CE	1E8DE	1E8EE	1E8FE	1E90E	1E91E
F	1E89F	1E8AF	1E8BF	1E8CF	1E8DF	1E8EF	1E8FF	1E90F	1E91F

Syllables in k-

1E800	𐌗	MENDE SYLLABLE M001 KI
1E801	𐌘	MENDE SYLLABLE M002 KA
1E802	𐌙	MENDE SYLLABLE M003 KU
1E803	𐌚	MENDE SYLLABLE M065 KEE
1E804	𐌛	MENDE SYLLABLE M095 KE
1E805	𐌜	MENDE SYLLABLE M076 KOO
1E806	𐌝	MENDE SYLLABLE M048 KO
1E807	𐌞	MENDE SYLLABLE M179 KUA = Dalby M177

Syllables in w-

1E808	𐌟	MENDE SYLLABLE M004 WI
1E809	𐌠	MENDE SYLLABLE M005 WA
1E80A	𐌡	MENDE SYLLABLE M006 WU
1E80B	𐌢	MENDE SYLLABLE M126 WEE
1E80C	𐌣	MENDE SYLLABLE M118 WE
1E80D	𐌤	MENDE SYLLABLE M114 WOO
1E80E	𐌥	MENDE SYLLABLE M045 WO
1E80F	𐌦	MENDE SYLLABLE M194 WUI
1E810	𐌧	MENDE SYLLABLE M143 WEI

Syllables in wv-

1E811	𐌨	MENDE SYLLABLE M061 WVI
1E812	𐌩	MENDE SYLLABLE M049 WVA
1E813	𐌪	MENDE SYLLABLE M139 WVE

Syllables in m-

1E814	𐌫	MENDE SYLLABLE M007 MIN
1E815	𐌬	MENDE SYLLABLE M008 MAN
1E816	𐌭	MENDE SYLLABLE M009 MUN
1E817	𐌮	MENDE SYLLABLE M059 MEN
1E818	𐌯	MENDE SYLLABLE M094 MON
1E819	𐌰	MENDE SYLLABLE M154 MUAN
1E81A	𐌱	MENDE SYLLABLE M189 MUEN

Syllables in b-

1E81B	𐌲	MENDE SYLLABLE M010 BI
1E81C	𐌳	MENDE SYLLABLE M011 BA
1E81D	𐌴	MENDE SYLLABLE M012 BU
1E81E	𐌵	MENDE SYLLABLE M150 BEE
1E81F	𐌶	MENDE SYLLABLE M097 BE
1E820	𐌷	MENDE SYLLABLE M103 BOO
1E821	𐌸	MENDE SYLLABLE M138 BO

Vowels

1E822	𐌹	MENDE SYLLABLE M013 I
1E823	𐌺	MENDE SYLLABLE M014 A
1E824	𐌻	MENDE SYLLABLE M015 U
1E825	𐌼	MENDE SYLLABLE M163 EE
1E826	𐌽	MENDE SYLLABLE M100 E
1E827	𐌾	MENDE SYLLABLE M165 OO
1E828	𐌿	MENDE SYLLABLE M147 O
1E829	𐍀	MENDE SYLLABLE M137 EI
1E82A	𐍁	MENDE SYLLABLE M131 IN
1E82B	𐍂	MENDE SYLLABLE M135 IN • used for the negative particle
1E82C	𐍃	MENDE SYLLABLE M195 AN • Dalby s M195 HO has different shape and value

1E82D 𐍄 MENDE SYLLABLE M178 EN
= Dalby M182

Syllables in s-

1E82E	𐍅	MENDE SYLLABLE M019 SI
1E82F	𐍆	MENDE SYLLABLE M020 SA
1E830	𐍇	MENDE SYLLABLE M021 SU
1E831	𐍈	MENDE SYLLABLE M162 SEE
1E832	𐍉	MENDE SYLLABLE M116 SE
1E833	𐍊	MENDE SYLLABLE M136 SOO
1E834	𐍋	MENDE SYLLABLE M079 SO
1E835	𐍌	MENDE SYLLABLE M196 SIA • not in Dalby or in Mansaray

Syllables in l-

1E836	𐍍	MENDE SYLLABLE M025 LI = Dalby and Mansaray M022
1E837	𐍎	MENDE SYLLABLE M026 LA = Dalby and Mansaray M023
1E838	𐍏	MENDE SYLLABLE M027 LU = Dalby and Mansaray M024
1E839	𐍐	MENDE SYLLABLE M084 LEE
1E83A	𐍑	MENDE SYLLABLE M073 LE
1E83B	𐍒	MENDE SYLLABLE M054 LOO
1E83C	𐍓	MENDE SYLLABLE M153 LO
1E83D	𐍔	MENDE SYLLABLE M110 LONG LE

Syllables in d-

1E83E	𐍕	MENDE SYLLABLE M016 DI
1E83F	𐍖	MENDE SYLLABLE M017 DA
1E840	𐍗	MENDE SYLLABLE M018 DU
1E841	𐍘	MENDE SYLLABLE M089 DEE
1E842	𐍙	MENDE SYLLABLE M180 DOO = Dalby M178
1E843	𐍚	MENDE SYLLABLE M181 DO = Dalby M179

Syllables in t-

1E844	𐍛	MENDE SYLLABLE M022 TI = Dalby and Mansaray M025
1E845	𐍜	MENDE SYLLABLE M023 TA = Dalby and Mansaray M026
1E846	𐍝	MENDE SYLLABLE M024 TU = Dalby and Mansaray M027
1E847	𐍞	MENDE SYLLABLE M091 TEE
1E848	𐍟	MENDE SYLLABLE M055 TE
1E849	𐍠	MENDE SYLLABLE M104 TOO
1E84A	𐍡	MENDE SYLLABLE M069 TO

Syllables in j-

1E84B	𐍣	MENDE SYLLABLE M028 JI = Mansaray M034
1E84C	𐍤	MENDE SYLLABLE M029 JA = Mansaray M035
1E84D	𐍥	MENDE SYLLABLE M030 JU = Mansaray M036
1E84E	𐍦	MENDE SYLLABLE M157 JEE
1E84F	𐍧	MENDE SYLLABLE M113 JE
1E850	𐍨	MENDE SYLLABLE M160 JOO
1E851	𐍩	MENDE SYLLABLE M063 JO
1E852	𐍪	MENDE SYLLABLE M175 LONG JO

Syllables in y-

1E853	𐎧	MENDE SYLLABLE M031 YI
1E854	𐎨	MENDE SYLLABLE M032 YA
1E855	𐎩	MENDE SYLLABLE M033 YU
1E856	𐎪	MENDE SYLLABLE M109 YEE
1E857	𐎫	MENDE SYLLABLE M080 YE
1E858	𐎬	MENDE SYLLABLE M141 YOO
1E859	𐎭	MENDE SYLLABLE M121 YO

Syllables in f-

1E85A	𐎮	MENDE SYLLABLE M034 FI = Mansaray M028
1E85B	𐎯	MENDE SYLLABLE M035 FA = Mansaray M029
1E85C	𐎰	MENDE SYLLABLE M036 FU = Mansaray M030
1E85D	𐎱	MENDE SYLLABLE M078 FEE
1E85E	𐎲	MENDE SYLLABLE M075 FE
1E85F	𐎳	MENDE SYLLABLE M133 FOO
1E860	𐎴	MENDE SYLLABLE M088 FO
1E861	𐎵	MENDE SYLLABLE M197 FUA • not in Dalby or in Mansaray
1E862	𐎶	MENDE SYLLABLE M101 FAN

Syllables in n-

1E863	𐎷	MENDE SYLLABLE M037 NIN
1E864	𐎸	MENDE SYLLABLE M038 NAN
1E865	𐎹	MENDE SYLLABLE M039 NUN
1E866	𐎺	MENDE SYLLABLE M117 NEN
1E867	𐎻	MENDE SYLLABLE M169 NON

Syllables in h-

1E868	𐎼	MENDE SYLLABLE M176 HI
1E869	𐎽	MENDE SYLLABLE M041 HA
1E86A	𐎾	MENDE SYLLABLE M186 HU
1E86B	𐎿	MENDE SYLLABLE M040 HEE
1E86C	𐏀	MENDE SYLLABLE M096 HE
1E86D	𐏁	MENDE SYLLABLE M042 HOO
1E86E	𐏂	MENDE SYLLABLE M140 HO
1E86F	𐏃	MENDE SYLLABLE M083 HEEI
1E870	𐏄	MENDE SYLLABLE M128 HOOU
1E871	𐏅	MENDE SYLLABLE M053 HIN
1E872	𐏆	MENDE SYLLABLE M130 HAN
1E873	𐏇	MENDE SYLLABLE M087 HUN
1E874	𐏈	MENDE SYLLABLE M052 HEN
1E875	𐏉	MENDE SYLLABLE M193 HON • Dalby s M193 NGGEE has different shape and value
1E876	𐏊	MENDE SYLLABLE M046 HUAN

Syllables in ngg-

1E877	𐏋	MENDE SYLLABLE M090 NGGI
1E878	𐏌	MENDE SYLLABLE M043 NGGA
1E879	𐏍	MENDE SYLLABLE M082 NGGU
1E87A	𐏎	MENDE SYLLABLE M115 NGGEE
1E87B	𐏏	MENDE SYLLABLE M146 NGGE
1E87C	𐏐	MENDE SYLLABLE M156 NGGOO
1E87D	𐏑	MENDE SYLLABLE M120 NGGO
1E87E	𐏒	MENDE SYLLABLE M159 NGGAA
1E87F	𐏓	MENDE SYLLABLE M127 NGGUA
1E880	𐏔	MENDE SYLLABLE M086 LONG NGGE

1E881 𐏕 MENDE SYLLABLE M106 LONG NGGOO

1E882 𐏖 MENDE SYLLABLE M183 LONG NGGO

Syllables in g-

1E883	𐏗	MENDE SYLLABLE M155 GI
1E884	𐏘	MENDE SYLLABLE M111 GA
1E885	𐏙	MENDE SYLLABLE M168 GU
1E886	𐏚	MENDE SYLLABLE M190 GEE
1E887	𐏛	MENDE SYLLABLE M166 GUEI
1E888	𐏜	MENDE SYLLABLE M167 GUAN

Syllables in ng-

1E889	𐏝	MENDE SYLLABLE M184 NGEN
1E88A	𐏞	MENDE SYLLABLE M057 NGON
1E88B	𐏟	MENDE SYLLABLE M177 NGUAN = Dalby M181

Syllables in p-

1E88C	𐏠	MENDE SYLLABLE M068 PI
1E88D	𐏡	MENDE SYLLABLE M099 PA
1E88E	𐏢	MENDE SYLLABLE M050 PU
1E88F	𐏣	MENDE SYLLABLE M081 PEE
1E890	𐏤	MENDE SYLLABLE M051 PE
1E891	𐏥	MENDE SYLLABLE M102 POO
1E892	𐏦	MENDE SYLLABLE M066 PO

Syllables in mb-

1E893	𐏧	MENDE SYLLABLE M145 MBI
1E894	𐏨	MENDE SYLLABLE M062 MBA
1E895	𐏩	MENDE SYLLABLE M122 MBU
1E896	𐏪	MENDE SYLLABLE M047 MBEE
1E897	𐏫	MENDE SYLLABLE M188 MBEE
1E898	𐏬	MENDE SYLLABLE M072 MBE
1E899	𐏭	MENDE SYLLABLE M172 MBOO
1E89A	𐏮	MENDE SYLLABLE M174 MBO
1E89B	𐏯	MENDE SYLLABLE M187 MBUU
1E89C	𐏰	MENDE SYLLABLE M161 LONG MBE
1E89D	𐏱	MENDE SYLLABLE M105 LONG MBOO
1E89E	𐏲	MENDE SYLLABLE M142 LONG MBO

Syllables in kp-

1E89F	𐏳	MENDE SYLLABLE M132 KPI
1E8A0	𐏴	MENDE SYLLABLE M092 KPA
1E8A1	𐏵	MENDE SYLLABLE M074 KPU
1E8A2	𐏶	MENDE SYLLABLE M044 KPEE
1E8A3	𐏷	MENDE SYLLABLE M108 KPE
1E8A4	𐏸	MENDE SYLLABLE M112 KPOO
1E8A5	𐏹	MENDE SYLLABLE M158 KPO → 1313D 𐏹 egyptian hieroglyph f052 → 1F4A9 𐏹 pile of poo

Syllables in gb-

1E8A6	𐏺	MENDE SYLLABLE M124 GBI
1E8A7	𐏻	MENDE SYLLABLE M056 GBA
1E8A8	𐏼	MENDE SYLLABLE M148 GBU
1E8A9	𐏽	MENDE SYLLABLE M093 GBEE
1E8AA	𐏾	MENDE SYLLABLE M107 GBE
1E8AB	𐏿	MENDE SYLLABLE M071 GBOO
1E8AC	𐐀	MENDE SYLLABLE M070 GBO

Syllable in r-

1E8AD 𑌗 MENDE SYLLABLE M171 RA

Syllables in nd-

1E8AE 𑌗 MENDE SYLLABLE M123 NDI
 1E8AF 𑌗 MENDE SYLLABLE M129 NDA
 1E8B0 𑌗 MENDE SYLLABLE M125 NDU
 1E8B1 𑌗 MENDE SYLLABLE M191 NDEE
 1E8B2 𑌗 MENDE SYLLABLE M119 NDE
 1E8B3 𑌗 MENDE SYLLABLE M067 NDOO
 1E8B4 𑌗 MENDE SYLLABLE M064 NDO

Syllables in nj-

1E8B5 𑌗 MENDE SYLLABLE M152 NJA
 1E8B6 𑌗 MENDE SYLLABLE M192 NJU
 1E8B7 𑌗 MENDE SYLLABLE M149 NJEE
 1E8B8 𑌗 MENDE SYLLABLE M134 NJOO

Syllables in v-

1E8B9 𑌗 MENDE SYLLABLE M182 VI
 = Dalby M180
 1E8BA 𑌗 MENDE SYLLABLE M185 VA
 1E8BB 𑌗 MENDE SYLLABLE M151 VU
 1E8BC 𑌗 MENDE SYLLABLE M173 VEE
 1E8BD 𑌗 MENDE SYLLABLE M085 VE
 1E8BE 𑌗 MENDE SYLLABLE M144 VOO
 1E8BF 𑌗 MENDE SYLLABLE M077 VO

Syllables in ny-

1E8C0 𑌗 MENDE SYLLABLE M164 NYIN
 1E8C1 𑌗 MENDE SYLLABLE M058 NYAN
 1E8C2 𑌗 MENDE SYLLABLE M170 NYUN
 1E8C3 𑌗 MENDE SYLLABLE M098 NYEN
 1E8C4 𑌗 MENDE SYLLABLE M060 NYON

Digits

1E8D1 𑌗 MENDE DIGIT ONE
 1E8D2 𑌗 MENDE DIGIT TWO
 1E8D3 𑌗 MENDE DIGIT THREE
 1E8D4 𑌗 MENDE DIGIT FOUR
 1E8D5 𑌗 MENDE DIGIT FIVE
 1E8D6 𑌗 MENDE DIGIT SIX
 1E8D7 𑌗 MENDE DIGIT SEVEN
 1E8D8 𑌗 MENDE DIGIT EIGHT
 1E8D9 𑌗 MENDE DIGIT NINE

Teens

1E8DA 𑌗 MENDE NUMBER TEN
 1E8DB 𑌗 MENDE NUMBER ELEVEN
 1E8DC 𑌗 MENDE NUMBER TWELVE
 1E8DD 𑌗 MENDE NUMBER THIRTEEN
 1E8DE 𑌗 MENDE NUMBER FOURTEEN
 1E8DF 𑌗 MENDE NUMBER FIFTEEN
 1E8E0 𑌗 MENDE NUMBER SIXTEEN
 1E8E1 𑌗 MENDE NUMBER SEVENTEEN
 1E8E2 𑌗 MENDE NUMBER EIGHTEEN
 1E8E3 𑌗 MENDE NUMBER NINETEEN

Tens

1E8E4 𑌗 MENDE NUMBER TWENTY
 1E8E5 𑌗 MENDE NUMBER THIRTY

1E8E6 𑌗 MENDE NUMBER FORTY
 1E8E7 𑌗 MENDE NUMBER FIFTY
 1E8E8 𑌗 MENDE NUMBER SIXTY
 1E8E9 𑌗 MENDE NUMBER SEVENTY
 1E8EA 𑌗 MENDE NUMBER EIGHTY
 1E8EB 𑌗 MENDE NUMBER NINETY

Hundreds

1E8EC 𑌗 MENDE NUMBER ONE HUNDRED
 1E8ED 𑌗 MENDE NUMBER TWO HUNDRED
 1E8EE 𑌗 MENDE NUMBER THREE HUNDRED
 1E8EF 𑌗 MENDE NUMBER FOUR HUNDRED
 1E8F0 𑌗 MENDE NUMBER FIVE HUNDRED
 1E8F1 𑌗 MENDE NUMBER SIX HUNDRED
 1E8F2 𑌗 MENDE NUMBER SEVEN HUNDRED
 1E8F3 𑌗 MENDE NUMBER EIGHT HUNDRED
 1E8F4 𑌗 MENDE NUMBER NINE HUNDRED

Thousands

1E8F5 𑌗 MENDE NUMBER ONE THOUSAND
 1E8F6 𑌗 MENDE NUMBER TWO THOUSAND
 1E8F7 𑌗 MENDE NUMBER THREE THOUSAND
 1E8F8 𑌗 MENDE NUMBER FOUR THOUSAND
 1E8F9 𑌗 MENDE NUMBER FIVE THOUSAND
 1E8FA 𑌗 MENDE NUMBER SIX THOUSAND
 1E8FB 𑌗 MENDE NUMBER SEVEN THOUSAND
 1E8FC 𑌗 MENDE NUMBER EIGHT THOUSAND
 1E8FD 𑌗 MENDE NUMBER NINE THOUSAND

Ten thousands

1E8FE 𑌗 MENDE NUMBER TEN THOUSAND
 1E8FF 𑌗 MENDE NUMBER TWENTY THOUSAND
 1E900 𑌗 MENDE NUMBER THIRTY THOUSAND
 1E901 𑌗 MENDE NUMBER FORTY THOUSAND
 1E902 𑌗 MENDE NUMBER FIFTY THOUSAND
 1E903 𑌗 MENDE NUMBER SIXTY THOUSAND
 1E904 𑌗 MENDE NUMBER SEVENTY THOUSAND
 1E905 𑌗 MENDE NUMBER EIGHTY THOUSAND
 1E906 𑌗 MENDE NUMBER NINETY THOUSAND























Hundred thousands

1E907 𑌗 MENDE NUMBER ONE HUNDRED
 THOUSAND
 1E908 𑌗 MENDE NUMBER TWO HUNDRED
 THOUSAND
 1E909 𑌗 MENDE NUMBER THREE HUNDRED
 THOUSAND
 1E90A 𑌗 MENDE NUMBER FOUR HUNDRED
 THOUSAND
 1E90B 𑌗 MENDE NUMBER FIVE HUNDRED
 THOUSAND
 1E90C 𑌗 MENDE NUMBER SIX HUNDRED
 THOUSAND
 1E90D 𑌗 MENDE NUMBER SEVEN HUNDRED
 THOUSAND
 1E90E 𑌗 MENDE NUMBER EIGHT HUNDRED
 THOUSAND
 1E90F 𑌗 MENDE NUMBER NINE HUNDRED
 THOUSAND






Millions
















































1E910 𑌗 MENDE NUMBER ONE MILLION

1E911	Ṁ	MENDE NUMBER TWO MILLION
1E912	Ṁ	MENDE NUMBER THREE MILLION
1E913	Ṁ	MENDE NUMBER FOUR MILLION
1E914	Ṁ	MENDE NUMBER FIVE MILLION
1E915	Ṁ	MENDE NUMBER SIX MILLION
1E916	Ṁ	MENDE NUMBER SEVEN MILLION
1E917	Ṁ	MENDE NUMBER EIGHT MILLION
1E918	Ṁ	MENDE NUMBER NINE MILLION

	1F30	1F31	1F32	1F33	1F34	1F35	1F36	1F37	1F38	1F39	1F3A	1F3B	1F3C	1F3D	1F3E	1F3F
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1F40 1F41 1F42 1F43 1F44 1F45 1F46 1F47 1F48 1F49 1F4A 1F4B 1F4C 1F4D 1F4E 1F4F

0															
1															
2															
3															
4															
5															
6															
7															
8														 1F4F8	
9															
A														 1F4FA	
B															
C															
D														 1F4FD	
E														 1F4FE	
F			 1F43F												

	1F50	1F51	1F52	1F53	1F54	1F55	1F56	1F57	1F58	1F59	1F5A	1F5B	1F5C	1F5D	1F5E	1F5F
0																
								1F570	1F580					1F5E0	1F5F0	
1																
									1F581					1F5E1	1F5F1	
2																
							1F572					1F5C2	1F5D2	1F5E2	1F5F2	
3																
												1F5C3	1F5D3	1F5E3	1F5F3	
4																
							1F574		1F594						1F5E4	
5																
							1F575		1F595						1F5E5	
6																
							1F576		1F596						1F5E6	
7																
															1F5E7	
8																
								1F588							1F5E8	
9																
							1F579								1F5E9	
A																
															1F5EA	
B																
							1F56B					1F5BB			1F5EB	
C																
							1F56C	1F57C				1F5BC	1F5DC	1F5EC		
D																
												1F5BD	1F5DD	1F5ED		
E																
												1F5BE	1F5DE	1F5EE		
F																
													1F5DF	1F5EF		

Accommodation symbols

1F37D 🍴 FORK AND KNIFE WITH PLATE
 = dining
 = w-0228
 → 1F374 🍴 fork and knife

Celebration symbols

1F396 🏆 MILITARY MEDAL
 = w-0038

Musical symbols

1F398 🎹 MUSICAL KEYBOARD WITH JACKS
 = midi, midi keyboard
 = w-0176
 → 1F3B9 🎹 musical keyboard

1F399 🎤 STUDIO MICROPHONE
 = microphone
 = w-0177
 → 1F3A4 🎤 microphone

1F39A 🎚 LEVEL SLIDER
 = level control
 = w-0188

1F39B 🎛 CONTROL KNOBS
 = audio control
 = w-0189

Entertainment symbols

1F39E 🎞 FILM FRAMES
 = film clip
 = w-0180
 → 1F3A5 🎥 movie camera

1F39F 🎫 ADMISSION TICKETS
 = ticket
 = w-0182
 → 1F3AB 🎫 ticket

Sport symbols

1F3C5 🏅 SPORTS MEDAL

1F3C6 🎯 <reserved>

1F3C7 🎯 <reserved>

1F3C8 🎯 <reserved>

1F3C9 🎯 <reserved>

1F3CA 🎯 <reserved>

1F3CB 🏋 WEIGHT LIFTER
 = health
 = w-0134

1F3CC 🏌 GOLFER
 = w-0137

1F3CD 🏍 MOTORCYCLE
 = w-0140

1F3CE 🏎 RACE CAR
 = w-0141

Building and map symbols

1F3D7 🏗 BUILDING CONSTRUCTION
 = under construction
 = w-0065
 → 1F6A7 🚧 construction sign

1F3D8 🏘 HOUSE BUILDINGS
 = town
 = w-0066
 → 1F3E1 🏡 house with garden

1F3D9 🏙 CITYSCAPE

= skyline, city
 = w-0067

→ 1F306 🌃 cityscape at dusk

1F3DA 🏚 DERELICT HOUSE BUILDING

= derelict site
 = w-0068

→ 1F3E0 🏠 house building

1F3DB 🏛 CLASSICAL TEMPLE

= public building
 = w-0071

1F3DC 🏜 DESERT

= w-0069

→ 1F335 🌵 cactus

1F3DD 🏝 ISLAND

= w-0074

→ 1F334 🌴 palm tree

1F3DE 🏞 PARK

= w-0080

→ 1F333 🌳 deciduous tree

1F3DF 🏟 STADIUM

= w-0083

Miscellaneous symbol

1F3F7 🏷 LABEL

= price, price tag
 = w-0146

→ 1F516 📌 bookmark

Animal symbols

1F43F 🐿 CHIPMUNK

= animal, critter
 = w-0242

Audio and video symbols

1F4F8 📷 CAMERA WITH FLASH

1F4F9 📺 <reserved>

1F4FA 📺 TELEVISION

1F4FB 📺 <reserved>

1F4FC 📺 <reserved>

1F4FD 🎞 FILM PROJECTOR

= movies
 = w-0184

→ 1F3A6 🎬 cinema

1F4FE 🎧 PORTABLE STEREO

= stereo
 = w-0186

Communication symbols

1F56B 📣 BULLHORN

= sound off
 = w-0086

→ 1F508 📢 speaker








1F56C 📣 BULLHORN WITH SOUND WAVES

= sound on
 = w-0085


→ 1F4E3 📣 cheering megaphone

→ 1F50A 📣 speaker with three sound waves

















Miscellaneous symbols

- 1F570  MANTELPIECE CLOCK
= clock
= w-0161
→ 23F0 alarm clock
- 1F571  <reserved>
- 1F572  NO PIRACY
= w-0035
- 1F573  <reserved>
- 1F574  MAN IN BUSINESS SUIT LEVITATING
= jump
= w-0109
- 1F575  SLEUTH OR SPY
= investigate
= w-0160
- 1F576  DARK SUNGLASSES
= cool
= w-0036




Game symbols

- 1F579  JOYSTICK
= w-0195


Communication symbols

- 1F57C  TELEPHONE RECEIVER WITH PAGE
= fax
= w-0198
→ 1F4E0  fax machine
- 1F57D  <reserved>
- 1F57E  <reserved>
- 1F57F  <reserved>
- 1F580  TELEPHONE ON TOP OF MODEM
= modem
= w-0201
- 1F581  CLAMSHELL MOBILE PHONE
= cellular phone
= w-0200
→ 1F4F1  mobile phone
- 1F582  <reserved>
- 1F583  <reserved>
- 1F584  <reserved>
- 1F585  <reserved>
- 1F586  <reserved>
- 1F587  <reserved>
- 1F588  BLACK PUSHPIN
= marker
= w-0235
→ 1F4CC  pushpin







































Hand symbols

- 1F594  REVERSED VICTORY HAND
- 1F595  REVERSED HAND WITH MIDDLE FINGER EXTENDED
- 1F596  RAISED HAND WITH PART BETWEEN MIDDLE AND RING FINGERS

Office symbols

- 1F5BB  DOCUMENT WITH PICTURE
= graphic document
= w-0159

User interface symbols

- 1F5BC  FRAME WITH PICTURE
= art
= w-0173
- 1F5BD  FRAME WITH TILES
= frames
= w-0162
- 1F5BE  FRAME WITH AN X
= no frames, no picture
= w-0163
- 1F5BF  <reserved>
- 1F5C0  <reserved>
- 1F5C1  <reserved>
- 1F5C2  CARD INDEX DIVIDERS
= index
= w-0172
→ 1F4C7  card index
- 1F5C3  CARD FILE BOX
= archive
= w-0171
- 1F5C4  <reserved>
- 1F5C5  <reserved>
- 1F5C6  <reserved>
- 1F5C7  <reserved>
- 1F5C8  <reserved>
- 1F5C9  <reserved>
- 1F5CA  <reserved>
- 1F5CB  <reserved>
- 1F5CC  <reserved>
- 1F5CD  <reserved>
- 1F5CE  <reserved>
- 1F5CF  <reserved>
- 1F5D0  <reserved>
- 1F5D1  <reserved>
- 1F5D2  SPIRAL NOTE PAD
= note
= w-0165
→ 1F4C5  calendar
- 1F5D3  SPIRAL CALENDAR PAD
= calendar
= w-0166
→ 1F4C6  tear-off calendar
- 1F5D4  <reserved>
- 1F5D5  <reserved>
- 1F5D6  <reserved>
- 1F5D7  <reserved>
- 1F5D8  <reserved>
- 1F5D9  <reserved>
- 1F5DA  <reserved>
- 1F5DB  <reserved>
- 1F5DC  COMPRESSION
• hand press with box inside
= w-0206
- 1F5DD  OLD KEY
= encryption
= w-0209
→ 1F511  key

Miscellaneous symbols

- 1F5DE 📰 ROLLED-UP NEWSPAPER
= news
= w-0169
→ 1F4F0 📰 newspaper
- 1F5DF 📄 PAGE WITH CIRCLED TEXT
= classified
= w-0170
- 1F5E0 📈 STOCK CHART
= finance
= w-0143
→ 1F4C8 📈 chart with upwards trend

Rating symbols

The following symbols give rating symbols; part of this set is 1F46A for "Family rating"

- 1F5E1 🗡️ DAGGER KNIFE
= rated for violence
= hate
= w-0149
→ 1F52A 🗡️ hocho
- 1F5E2 👄 LIPS
= rated for sex
= kiss
= w-0150
→ 1F48B 👄 kiss mark
- 1F5E3 🗣️ SPEAKING HEAD IN SILHOUETTE
= rated for strong language
= w-0151

Sound symbols

- 1F5E4 ☸️ THREE RAYS ABOVE
= w-0237
- 1F5E5 ☹️ THREE RAYS BELOW
= w-0238
- 1F5E6 ⤴️ THREE RAYS LEFT
= w-0239
→ 269E ⤴️ three lines converging right
- 1F5E7 ⤵️ THREE RAYS RIGHT
= w-0240
→ 269F ⤵️ three lines converging left


















Bubble symbols

- 1F5E8 🗨️ LEFT SPEECH BUBBLE
= w-0040
- 1F5E9 🗨️ RIGHT SPEECH BUBBLE
= w-0041
- 1F5EA 🗨️ TWO SPEECH BUBBLES
= chat
= w-0094
- 1F5EB 🗨️ THREE SPEECH BUBBLES
= conference
= w-0095
- 1F5EC 🗨️ LEFT THOUGHT BUBBLE
= w-0091
- 1F5ED 🗨️ RIGHT THOUGHT BUBBLE
= w-0093
→ 1F4AD 🗨️ thought balloon
- 1F5EE 🗨️ LEFT ANGER BUBBLE
= shout left
= w-0123

- 1F5EF 🗨️ RIGHT ANGER BUBBLE
= shout right
= w-0125
- 1F5F0 🗨️ MOOD BUBBLE
= new
= w-0042
→ 1F4A5 🗨️ collision symbol
- 1F5F1 ⚡️ LIGHTNING MOOD BUBBLE
= updated
= w-0043
→ 26A1 ⚡️ high voltage sign
- 1F5F2 ⚡️ LIGHTNING MOOD
= lightning bolt
= w-0126
→ 26A1 ⚡️ high voltage sign






Ballot symbols

- 1F5F3 🗳️ BALLOT BOX WITH BALLOT
= vote
= w-0063
→ 2612 🗳️ ballot box with x







	1F68	1F69	1F6A	1F6B	1F6C	1F6D	1F6E	1F6F
0							 1F6E0	 1F6F0
1							 1F6E1	 1F6F1
2							 1F6E2	 1F6F2
3							 1F6E3	
4							 1F6E4	
5							 1F6E5	
6							 1F6E6	
7							 1F6E7	
8							 1F6E8	
9							 1F6E9	
A								
B					 1F6CB			
C					 1F6CC			
D					 1F6CD			
E					 1F6CE			
F								

Vehicles

















Accommodation symbols

- 1F6CB  COUCH AND LAMP
 = furniture, lifestyles
 = w-0226
- 1F6CC  BED
 = hotel, guestrooms, accommodation
 = w-0227
 → 1F3E8  hotel
- 1F6CD  SHOPPING BAG
 = shopping
 = w-0231
- 1F6CE  BELLHOP BELL
 = reception, services
 = w-0230

Miscellaneous symbols

- 1F6E0  HAMMER AND WRENCH
 = tools, repair facility
 = w-0064
 → 2692  hammer and pick
- 1F6E1  SHIELD
 = US road interstate highway
 = w-0100
- 1F6E2  OIL DRUM
 = commodities
 = w-0144
- 1F6E3  MOTORWAY
 = w-0075
- 1F6E4  RAILWAY
 = railroad
 = w-0082

Vehicles

- 1F6E5  MOTOR BOAT SIDEWAYS
 = boat
 = w-0111
 → 1F6A4  speedboat
- 1F6E6  MILITARY AIRPLANE
 • military airport
- 1F6E7  UP-POINTING AIRPLANE
 → 2708  airplane
 • commercial airport
- 1F6E8  SMALL AIRPLANE
 = w-0106
 • airfield
- 1F6E9  NORTHEAST-POINTING AIRPLANE
 = airplane
 = w-0241
- 1F6EA  <reserved>
- 1F6EB  <reserved>
- 1F6EC  <reserved>
- 1F6ED  <reserved>
- 1F6EE  <reserved>
- 1F6EF  <reserved>
- 1F6F0  SATELLITE
 = w-0107
- 1F6F1  ONCOMING FIRE ENGINE
 = fire
 = w-0102
 → 1F692  fire engine