Summary of proposals made during the third meeting of the Mongolia working group (MWG/3)

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This document lists the various proposals made by participants in the Mongolian Working Group Meeting 3, which took place on April 3-5, 2019 in Ulaanbaatar, Mongolia. The agenda is available at MWG/3-N0.

A. Proposals made by Enkhdalai B.

1. Various additions, deletions, and modifications need to be made in the description of variation sequences in the Unicode code chart for Mongolian script, per MWG/3-N3 and MWG/3-N4.
2. When Free Variation Selectors have no effect on the display of text, they should be made visible (they would be invisible only if they have a visual effect on the preceding character). They should be visible by default, for example, if used in English, or if they appear by themselves.

B. Proposals made by CITA-WG

1. MVS should not be used as a vowel separator for forming the disjointed tail (chachulga). No format character should be used as a vowel separator. FVS is used to override when the non-chachulga form is wanted.
2. NNBSP should not be used as a suffix separator. MVS should be used as a suffix separator instead.
3. If proposal B1 is accepted, a new character should be encoded in Unicode to represent the letter a (⯑) for Todo and Manchu-Sibe, disunified from the existing U+1820 MONGOLIAN LETTER A.

C. Proposals made by Bolorsoft

1. The use of FVS2, FVS3, NNBSP, and ZWNJ in the Mongolian encoding model should be eliminated.
2. Various variation sequences used for historical or stylistic variants should be removed, per pages 63 and 64 of MWG/3-N7.
3. Various positional mismatches in the variation sequences should be fixed, per pages 65 and 66 of MWG/3-N7.

4. The codepoints U+1887..U+188A in the Ali Gali section of the Unicode Mongolian block are non-essential.
5. U+1889 MONGOLIAN LETTER ALI GALI KA should be used to represent the letter GE in Hudum.
6. U+1888 should be used to represent the letter KE in Hudum.
7. MVS should be used instead of NNBSP in Mongolian text.
8. The toothed forms of vowels used in compound words should be represented with the SSBM character (U+1807), as suggested by Unicode experts.
9. Our proposed refind phonetic model, as described at MWG/3-N7, should be adopted.

D. Proposals made by Shen Yilei

1. Syllable structure analysis should be used in shaping Mongolian.
2. SSBM (U+1807) should be used for Hudum medial zero consonant (*alep*, in the form of a tooth). All vowel variants that incorporate a medial zero consonant (*alep*) should be deprecated.
3. The Hudum *g* (U+182D MONGOLIAN LETTER GA) should be disunified into two different characters. If not possible, one of three choices should be made and documented:
   a. Gender propagation should be bidirectional.
   b. Gender propagation should be progressive-only (go only forward).
   c. There should be no gender propagation, and FVS overrides should be used for every masculine *Ci⟨G⟩*.
4. FVS assignments should be aligned between cursive positions (see page 8 of MWG/3-N9).
5. No more invisible magic characters should be added to the Mongolian encoding model.
6. Punctuation marks in Mongolian fonts should not incorporate significant whitespace padding in their glyphs. Instead, users should enter spaces when they need them.
7. The use of legacy vertical forms of punctuation characters (U+FE10..U+FE19, U+FE30..U+FE44, U+FE47, and U+FE48) should be deprecated.
8. The Vertical_Orientation property of U+FF1A FULLWIDTH COLON and U+FF1B FULLWIDTH SEMICOLON should be changed from "Tr" to "Tu".
9. The line breaking property of various punctuation marks used in Mongolian should be changed as below:
   a. From AL to OP: U+1800 MONGOLIAN BIRGA
   b. From BB to OP: U+11660 MONGOLIAN BIRGA WITH ORNAMENT…U+1166C MONGOLIAN TURNED SWIRL BIRGA WITH DOUBLE ORNAMENT
   c. From AL to EX: U+1801 MONGOLIAN ELLIPSIS
   d. From BA to EX: U+1804 MONGOLIAN COLON and U+1805 MONGOLIAN FOUR DOTS
   e. From NS to EX: U+203C DOUBLE EXCLAMATION MARK, U+203D INTERROBANG, U+2047 DOUBLE QUESTION MARK, U+2048 QUESTION EXCLAMATION MARK, U+2049 EXCLAMATION QUESTION MARK, U+FF1A FULLWIDTH COLON, and U+FF1B FULLWIDTH SEMICOLON
10. Illicit forms should be visually indicated per document MWG/3-N16.

E. Proposals made by Liang Jinbao

1. We have to build a stable and single standard with minimal modifications in the shortest amount of time.
2. We should not focus on fixing Mongolian problems in historical stock software. Instead, we should follow the trend of the technology development.
3. The use of NNBSP should be abandoned. MVS should be renamed to MSC and used in places where currently either MVS or NNBSP is used.
4. Use U+180A MONGOLIAN NIRUGU instead of ZWJ for showing stand-alone glyphs.
5. Nirugu should pass the syntax attributes transparently to each side. ZWJ should block them instead.
6. The positional mismatches of the variants used at the beginning of separated suffixes should be corrected (see page 15 of MWG/3-N11).
7. Use context-independent static assignments for variation sequences (see page 16 of MWG/3-N11).
8. When the user uses an FVS in a wrong way, or they enter an extra FVS, the font should show them an error glyph as a hint.
9. Use and behavior of punctuation characters in Mongolian should be specified and documented.
10. The ideal encoding scheme for Mongolian should be pursued only after correcting the Unicode Mongolian code chart and publishing a unified Unicode Technical Note.

F. Proposals made by Andrew Glass

1. We need to agree on and coordinate on the glyph inventory of a standard-compliant Mongolian font (external to Unicode standardization).
2. After agreements are reached on the details of Mongolian shaping, standard-conforming OpenType tables should be created for Mongolian script shaping and published as open source software.

G. Proposals made by Anand Orkhonbaatar

1. Identical-looking letters such as o and u, ö and ü, and d and t, should be unified.
2. A single new character to represent the letters for k and g, should be encoded, disunified from x and ɣ.
3. Historical and stylistic variations should be removed from the specifications.
4. Special shaping behavior of NNBSP should be removed. Suffixes that need special shaping should use FVS or ZWJ. Users should be able to use either a space or NNBSP to separate suffixes.

H. Proposals made by Liang Hai

1. A comprehensive specification for both text representation and text rendering of the Mongolian script should be made available, and be standardized eventually. Experts should start cooperating on such a document, potentially in the format of MWG/3-N8.