UNICODE FORUM PROPOSED CHANGES – MONGOLIAN BLOCK
January 14, 2015

SUMMARY

New FVS Character
180F-FVS4

New FVS assignments

180A+FVS1-Final   1826+FVS2-Final
1822+FVS2-Medial   1828+FVS4-Medial
1822+FVS3-Medial   1829+FVS1-Isolate
1822+FVS1-Final   182C+FVS2-Initial
1824+FVS1-Final   182D+FVS2-Initial
1824+FVS2-Final   1843+FVS1-Final   182D+FVS4-Medial needed here !
1826+FVS4-Medial   This should be 182D+FVS4-Medial ?   1887+FVS4-Final
                   Or 1826+FVS3-Medial ?

Differences with the Chinese Standard
182C+FVS2/FVS3-Medial are switched
182D+FVS1-Isolate (Chinese Standard uses a ZWJ)

Character Feature Changes
1885 Baluda – Feature change from "letter" to "diacritic mark"
1886 Triple Baluda – Feature change from "letter" to "diacritic mark"

Unicode Isolate Forms without FVS assignments – This is an FYI at present. The issue is that there is no easy way for the user to type these code-point's Unicode form without having intrinsic understanding of the block; user will have to use a ZWJ combination; user will have to know the position of the particular code-point that is the Unicode form. It is felt that this should be a simple task to write any given Unicode form whereas in reality it is not.

184A (Final)   1862 (Final)
184B (Final)   1863 (Final)
184F (Final)   1873 (Final)
1859 (Final)   1874 (Medial)
185D (Final)   1875 (Final)
185E (Second Medial)   1876 (Medial)
1861 (Medial)

FVS Mis-Match – This is probably our hardest issue the forum has faced. There exists one post-NNBSP context where the Chinese Standard does not agree with the glyph position as determined by common font rendering engines such as the Universal Shaping Engine of Microsoft nor by Harfbuzz of Google. There also exist 6 pre-MVS contexts with the same issue. This creates confusion in the minds of the font developer. It creates further confusion in the correct placement of the FVS which is designed to simulate a given context. The issue also creates un-necessary redundancy in the probable implementation of two FVSs for one context. The suggested solution is to specify the glyph position of these 7 different letters according to the actual position as derived by the font rendering engines. See Appendix Chart – Mongolian FVS MisMatch for more details.

	Chinese Standard Stated Position	Uniscribe/Harfbuzz Derived Position
U+1820(post-NNBSP)	Medial	Initial

U+1828(pre-MVS)	Medial	Final
U+182C(pre-MVS)#1	Medial	Final
U+182C(pre-MVS)#2	Medial	Final
U+182D(pre-MVS)	Medial	Final
U+1835(pre-MVS)	Medial	Final
U+1836(pre-MVS)	Medial	Final

NEW CONTROL CHARACTER

1.) <u>New FVS4 Control Character</u> – There are three instances now where the FVS4 may be needed, one of which is definitely confirmed; <U+1887-Isolate><FVS1> is actually a final as confirmed by Professor Quejingzhabu.

180F	(xxxx)		FV S3	MONGOLIAN FREE VARIATION SELECTOR FOUR

STATUS: Check to see whether this is in the new 2016 Chinese Standard

NEW VARIANTS

1.) New FVS1 assignment at Final U+180A-Nirugu – Professor Quejingzhabu's Specification 9.0 calls for a final with a hook. Current forum members are calling for a final with no hook. As the hook is more standard than no hook, it is recommended that the default be the hook and the no-hook be the variant with FVS.

ZWJ+180A	(xxxx)	⅂	*First Final Form*

STATUS: Check to see whether this is in the new 2016 Chinese Standard

ZWJ +180A+FVS1	(xxxx)	▪	*Second Final Form*

STATUS: Not expected to be in the new 2016 Chinese Standard

2.) <u>New FVS2 assignment</u> at <U+1822-Medial><U+180C> Three out of six font developers implement this double-tooth U+1822 form.

ZWJ+1822+FVS2+ZWJ	᠊ᡉ (x__)	*Third Medial Form*

3.) <u>New FVS3 assignment</u> at <U+1822-Medial><U+180D> This variant is needed to over-ride default context of the medial I in words such as NAIMA "eight".

ZWJ+1822+FVS3+ZWJ	᠊ᡏ (x__)	*Fourth Medial Form*

STATUS: Check to see whether this is in the new 2016 Chinese Standard

4.) <u>New FVS1 assignment</u> at <U+1822-Final><U+180B> This 1822 final variant has been attested by various independent sources.

ZWJ+1822+FVS1	᠊ᡅ (x__)	*Second Final Form*

STATUS: Check to see whether this is in the new 2016 Chinese Standard

5.) <u>New FVS1 assignment</u> at <U+1824-Final><U+180B> This variant is needed for foreign spellings such as "Nassau".

ZWJ+1824+FVS1	᠊ᡄ (x__)	*Second Final Form*

STATUS: Check to see whether this is in the new 2016 Chinese Standard

6.) <u>New FVS2 assignment</u> at <U+1824-Final><U+180C> This variant has been attested by several independent sources as a variant of the dotted genetive case U/UE after the sequence <U+1828-N><NNBSP>.

ZWJ+1824+FVS2   ϙ (x___)   *Third Final Form*
STATUS: Check to see whether this is in the new 2016 Chinese Standard

7.) <u>New FVS3 assignment</u> at <U+1826-Medial><U+180D> This variant is needed to over-ride the context so that we can use the DUEGER with or without the NNBSP.

ZWJ+1826+FVS3+ZWJ   ᠮ (x___)   *Fourth Medial Form*
STATUS: Check to see whether this is in the new 2016 Chinese Standard
(needed to handle DUEGER without NNBSP)

8.) <u>New FVS2 assignment</u> at <U+1826-Final><U+180C> This variant has been attested by several independent sources as a variant of the dotted genetive case U/UE after the sequence <U+1828-N><NNBSP>.

ZWJ+1826+FVS2   ϙ (x___)   *Third Final Form*
STATUS: Check to see whether this is in the new 2016 Chinese Standard
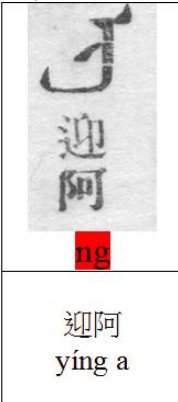
9.) <u>New FVS4 assignment</u> at <U+1828-Medial><U+180F> This default form is needed with FVS assignment to over-ride native context for such rare cases as ANAR.

ZWJ+1828+FVS4+ZWJ   ᠷ (x___)   *Fifth Medial Form*
STATUS: Not expected to be in the new 2016 Chinese Standard
(AN+FVS4+AR must remove the dot)

10.) <u>New FVS1 assignment</u> at <U+1829-Isolate><U+180B> This isolate is evidenced in the dictionary "mongyol nanggiyad üsüg-ün toli bičig" (蒙漢字典) published in 1928. This is shown in context at http://www.cneas.tohoku.ac.jp/staff/hkuri/articles/a62houkoku14.pdf

迎阿
ng

迎阿
yíng a

11.) <u>New FVS2 assignment</u> at <U+182C-Initial><U+180C> This variant is needed for the special case of QQIR.

182C+FVS2+ZWJ   ᠬ (x___)   *Third Initial Form*

12.) <u>New FVS3 assignment</u> at <U+182D><U+180C> This variant is needed for foreign loan words such as GRAM.

182D+FVS2+ZWJ   ᠬ (x___)   *Third Initial Form*

13.) <u>New FVS4 assignment</u> at <U+182D><U+180F> This default form is needed with FVS assignment to over-ride native context for such rare cases as COGAGULA.

ZWJ+182D+FVS4+ZWJ   π (x__)   *Fifth Medial Form*
STATUS: Check to see whether this is in the new 2016 Chinese Standard
(needed to over-ride default context)
(COG+FVS4+A+FVS1+GULA)

14.) <u>New FVS1 assignment</u> at <U+1843><U+180B> This variant has been attested to.

ZWJ+1843+FVS1   ʟ (x__)   *Second Final Form*
STATUS: Check to see whether this is in the new 2016 Chinese Standard

15.) <u>New FVS3 assignment</u> at <U+1887><U+180F> This is currently listed as an isolate in the Chinese Standard. Professor Quejingzhabu says that this is a mistake and is actually a final.

ZWJ+1887+FVS4   ꝰ (x__)   *Fifth Final Form*

VARIATION BETWEEN CHINESE STANDARD & NEW PROPOSAL

1.) Variation at <U+182C><U+180C> and <U+182C><U+180D>. NP has the undotted form first and the dotted form second. Chinese Standard has them the opposite way. All font developers implement by the NP statement with the undotted form first.

ꓭ	*蒙字母. qa 词中第一形式 ml.qa first medial form	qa		ZW J ⇨ ZW J	
ꓭ	*蒙字母. qa 词中第二形式 ml. qa second medial form	qa		ZW J ⇨ FY S1 ZW J	
ꓬ	*蒙字母. qa 词中第三形式 ml. qa third medial form	qa		ZW J ⇨ FY S2 ZW J	
ꓬ	蒙字母. qa 词中第四形式 ml. qa fourth medial form	qa		ZW J ⇨ FY S3 ZW J	

ZWJ+182C+FVS2+ZWJ   ꞥ (x__)   *Third Medial Form*
(actually - processed as final when pre-MVS)
(Chinese Standard has dotted variant first - however all fonts show non-dotted variant first)

ZWJ+182C+FVS3+ZWJ   ꞥ. (x__)   *Fourth Medial Form*[&]
(actually - processed as final when pre-MVS)
(Chinese Standard has dotted variant first - however all fonts show non-dotted variant first)

2.) Variation at <U+182D><U+180B> The Chinese Standard uses the non-standard ZWJ to specify an isolate. As this is not necessary and breaks the common paradigm, the NP uses a FVS1.

<div align="center">FVS MisMatch</div>

1.) U+1820-A (post-NNBSP) by the Chinese Standard

ZWJ+1820+FVS2+ZWJ   (xx__)   *Third Medial Form*

1.) U+1820-A (post-NNBSP) by the Universal Shaping Engine (Uniscribe) / Harfbuzz

1820+FVS1+ZWJ   (xx__)   *Second Initial Form*

2.) U+1828-N (pre-MVS) by the Chinese Standard

ZWJ+1828+FVS2+ZWJ   (x__)   *Third Medial Form*

2.) U+1828-N (pre-MVS) by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+1828+FVS1   (x__)   *Second Final Form*

3.) U+182C-Q (pre-MVS) #1 by the Chinese Standard

ZWJ+182C+FVS2+ZWJ   (x__)   *Third Medial Form*

3.) U+182C-Q (pre-MVS) #1 by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+182C   (x__)   *First Final Form*

4.) U+182C-Q (pre-MVS) #2 by the Chinese Standard

ZWJ+182C+FVS3+ZWJ   (x__)   *Fourth Medial Form*[&]

4.) U+182C-Q (pre-MVS) #2 by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+182C+FVS1   (x__)   *Second Final Form*[&]

5.) U+182D-G (pre-MVS) by the Chinese Standard

ZWJ+182D+FVS2+ZWJ   (x__)   *Third Medial Form*

5.) U+182D-G (pre-MVS) by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+182D+FVS3 ᠭ (ᠬ___) *Fourth Final Form*

6.) U+1835-J (pre-MVS) by the Chinese Standard

ZWJ+1835+FVS1+ZWJ ᠵ (ᠬ___) *Second Medial Form*

6.) U+1835-J (pre-MVS) by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+1835+FVS1 ᠵ (ᠬ___) *Second Final Form*

7.) U+1836-Y (pre-MVS) by the Chinese Standard

ZWJ+1836+FVS2+ZWJ ᠶ (ᠬ___) *Third Medial Form*

7.) U+1836-Y (pre-MVS) by the Universal Shaping Engine (Uniscribe) / Harfbuzz

ZWJ+1836 ᠶ (ᠬ___) *Final Form*