

1. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 2. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 3. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 4. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 5. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 6. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 7. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 8. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 9. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 10. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ

11. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 12. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 13. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 14. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 15. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 16. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 17. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 18. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 19. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ
 20. ᠠᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ ᠨᠠᠭᠤ



MONGOLIAN SCRIPT IN UNICOD

SAN JOSE – 2018

Agenda

- **Improvement of Mongolian Script Description in Unicode**
 - Single control character instead of many
 - U1800 – Separation of the font matter and the Unicode matter
 - Adding one more character in Unicode table U1800
 - Unicode table should indicate only the basic principles of modern grammar
 - Certification of fonts
- **About Graphitic approach – Personal view and explanation**
 - What is the Graphitic method of rendering
 - Combining of true Unicode world with the Graphitic approach
- **Notes**
 - OS and Software problem
 - Notes on W3C

Current situation of U1800

- **Very difficult for end users – for dummies**
- **Difficult for font designers and application developers - for smart guys**

Goal: Make easier the using for end users and also make easy for font and application developers.

Improvement of Mongolian Script Description in Unicode

Single control character instead of many

**MVS,
FVS1,
FVS2,
FVS3**



FVS1

Improvement of Mongolian Script Description in Unicode

Single control character instead of many



Implementation in OTF font – in 2 steps

1.
FVS1 will replace
final “a” or “e” into
spaced orhits

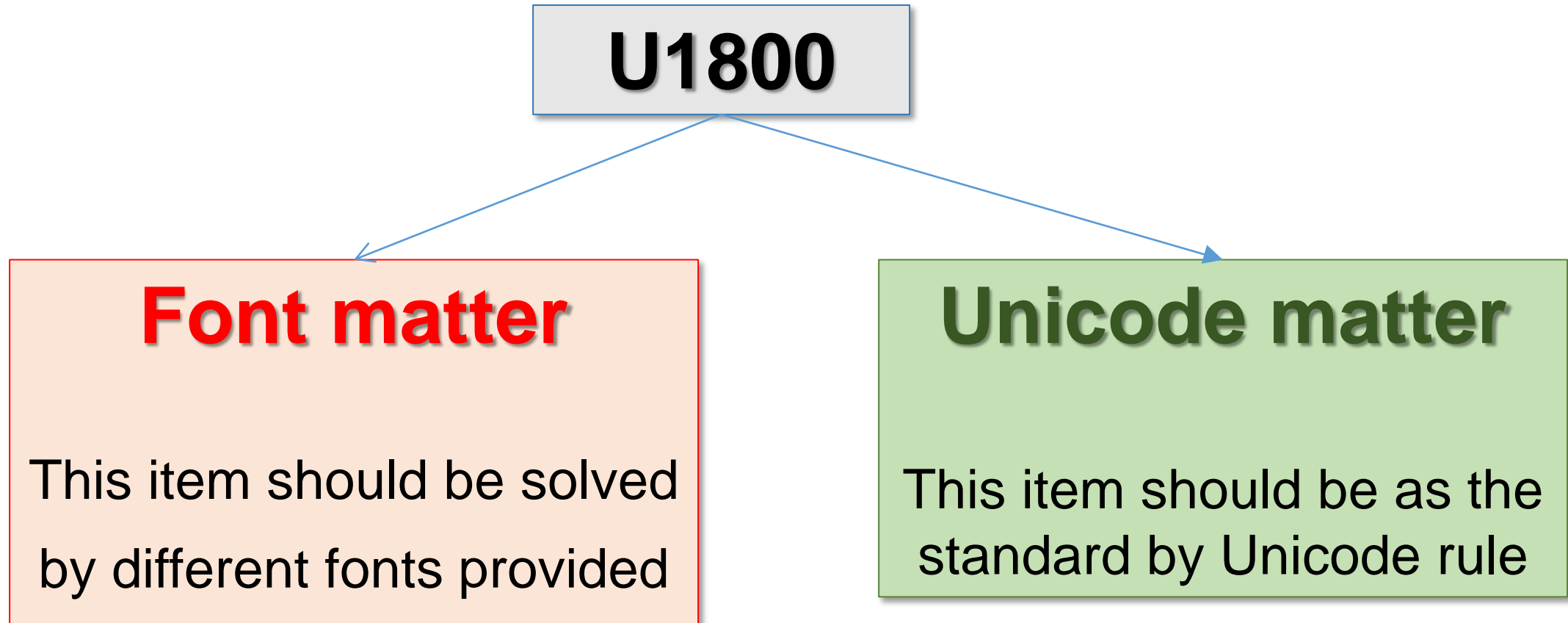


2.
“**orhits**” will replace
previous middle “n”
to the final “**n**”



Improvement of Mongolian Script Description in Unicode

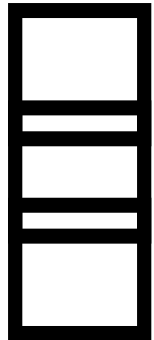
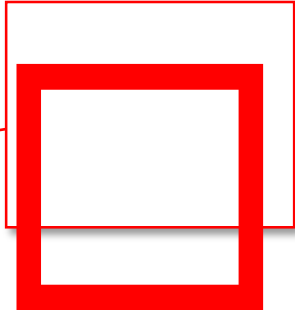
U1800 – Separation of the font matter and the Unicode matter



Mongolian

	180	181	182	183	184	185	186	187	188	189	18A
0	᠎ᠠ	᠎ᠡ	᠎ᠢ	᠎ᠣ	᠎ᠤ	᠎ᠥ	᠎ᠦ	᠎ᠨ	᠎ᠢ	᠎ᠣ	᠎ᠤ
1	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
2	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
3	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
4	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
5	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
6	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
7	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
8	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
9	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
A	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
B	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
C	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
D	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
E	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ
F	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ	᠎ᠠᠨ

Adding one more character in Unicode table U1800



Improvement of Mongolian Script Description in Unicode

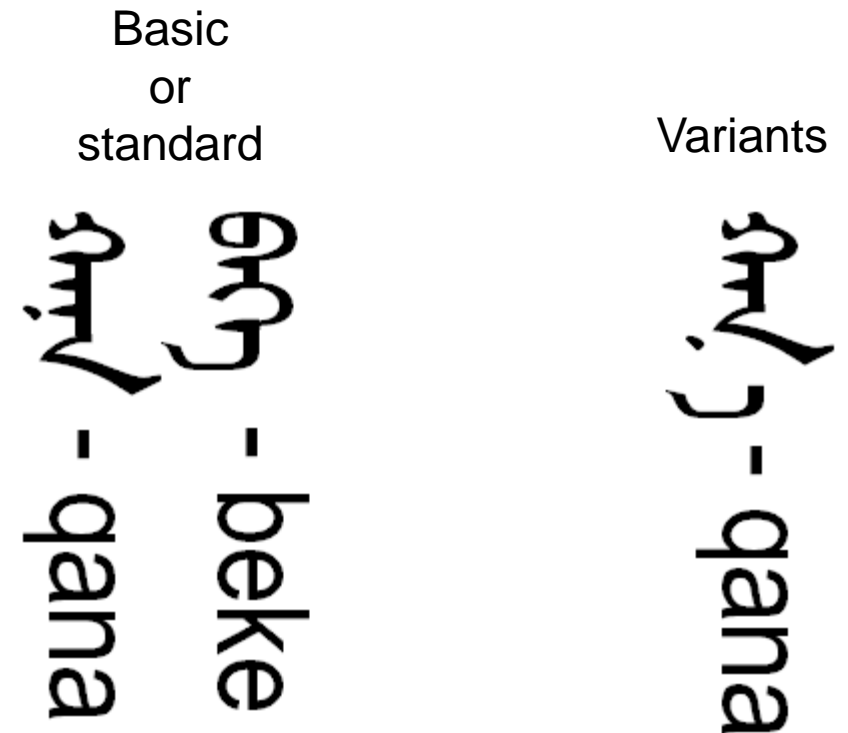
Unicode table should indicate only the basic principles of modern grammar

Main principle:

U1800 table should make clear the glyph shape variants based on only the modern grammar of Mongolian script.

For example:

Vowel “a” and “e” at the end of word



Notes to Unicode World

Proofing font

- *Mongolian special font with specific characters*
- *Latin or Cyrillic letters in table U1800*

Improvement of Mongolian Script Description in Unicode

Certification of fonts

- **Actually this is not a direct obligation of Unicode**
 - But it will be better some subject, i.e. some government institute or even enthusiasts, carry out the testing of any newly created fonts and then publish the result on some special web site.
 - Provide some text with its picture variant, which shall be used by font designers and/or software developers for judgment of their font or application whether are working correctly.

About Graphitic approach

Personal view and explanation

- Not acceptable!

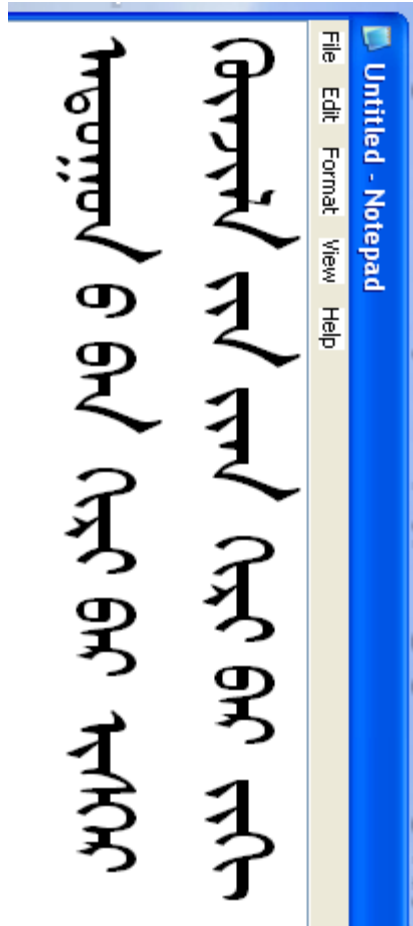
About Graphitic approach

Personal view and explanation

Using of some ideas of Graphitic method in the U1800 standard

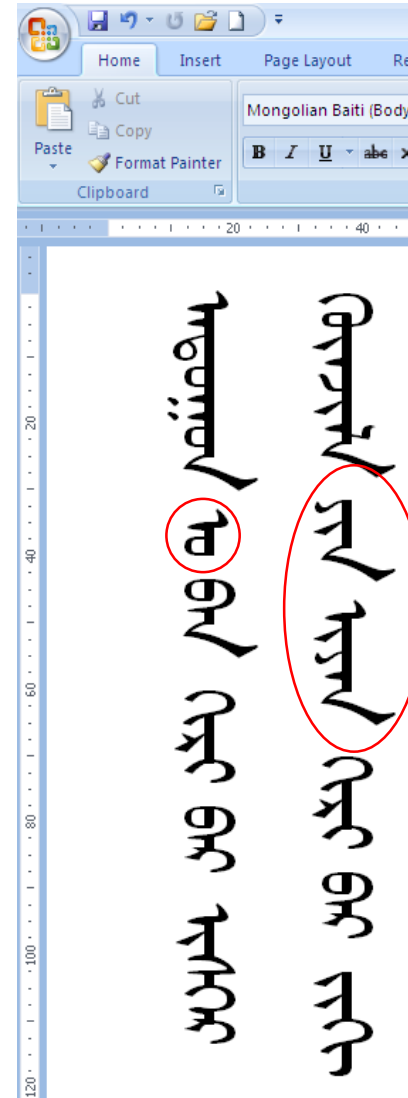
- U1800 is the main true standard.
- If it is used some idea from graphitic method then it will be only as supplementary tools useful for non-unicode area.
- But it should be also standardized.

OS and Software problem



Notepad

correct



MS Word

Not correct

Thank you for your attention