SOME POSSIBLE IMPROVEMENT IDEAS TO THE CURRENT MONGOLIAN ENCODING

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1. Unifying the identical letter which represent more than one sound
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3. Possible ways to write the suffixes without the usage of NNBSP
1. Unifying identical letters
Unifying the identical letter which represent more than one sound

• The letters o and u (ᠥ‍ and ᠦ‍)
• The letters ö and ü (ᠥ‍ and ᠦ‍)
• The letters d and t (ᠦ‍ and ᠧ)
• Separating the k and g from x and ɣ (ᠥ‍ from ᠮ‍; ᠶ‍ from ᠭ‍) then coding them as a single letter in one code point
Why we should unify them

• This letters pronunciations differ by the dialects
• When we adopted the script from the old Uyghur script we used many letters to represent more than one sound in Mongolian due to the limited numbers of the letters
• By not unifying them, we will have various database
• There are already some letters which encoded by single code point
Different pronunciation by different dialects.

- ᠵᠦᠪᠡᠭᠦᠨ (boy)
  - köwüün in western dialects;
  - höwgüün in khalkha dialect;
  - hübüün in buryat dialect;
- ᠬᠡᠷᠡ （bridge）
  - hüürge in buryat dialect;
  - güür in khalkha dialect;
- ᠤᠶᠡ （lay down）
  - hewteh in some dialects
  - gewteh in some dialects
  - kewteh in some dialects
- ᠲᠦᠶᠡ （stinky）
  - ömhii in some dialects
  - ümhii in some dialects
- ᠩᠦᠷᠤ （pull out）
  - datah in some dialects
  - tatah in some dialects
- ᠡᠥᠷᠭᠠᠭᠤ （by the way）
  - dashiramd in some dialects
  - tashiramd in some dialects
- ᠦᠮᠢᠳᠦ （living adj.）
  - amid(u) in the pronunciation but the construction is amid+tu
There are already many letters coded as a single letter, but pronounced by more than one sounds which are:

- ᠣ is pronounced either as ts and tf
- ᠥ is pronounced either as dz and dz
- ᠧ is pronounced either as b and w
  (mostly w with the exception of initial position)
- ᠨ is pronounced as γ, but in before consonant it’s pronounced as g
- ᠩ is pronounced as џ when it’s followed by ᠠ (i)
# Uyghur to Mongolian

<table>
<thead>
<tr>
<th>Uyghur</th>
<th>Mongolian</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUN</td>
<td>ᵃ  ᵄ  ᵃ</td>
</tr>
<tr>
<td>SAMEKH</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>PE</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>SADHE</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>RESH</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>SHIN</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>TAW</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
<tr>
<td>LESH</td>
<td>ᵃ  ᵃ  ᵃ</td>
</tr>
</tbody>
</table>

## Dual-joining letters

<table>
<thead>
<tr>
<th></th>
<th>iso</th>
<th>fin</th>
<th>med</th>
<th>init</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALEPH</td>
<td>¹</td>
<td>¹</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BETH</td>
<td>¹</td>
<td>¹</td>
<td>³</td>
<td>³</td>
</tr>
<tr>
<td>GIMEL-HETH</td>
<td>²</td>
<td>²</td>
<td>³</td>
<td>³</td>
</tr>
<tr>
<td>WAW</td>
<td>³</td>
<td>³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ZAYIN</td>
<td>³</td>
<td>³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>YODH</td>
<td>³</td>
<td>³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>KAPH</td>
<td>³</td>
<td>³</td>
<td>³</td>
<td>³</td>
</tr>
<tr>
<td>LAMEDH</td>
<td>³</td>
<td>³</td>
<td>³</td>
<td>³</td>
</tr>
<tr>
<td>MEM</td>
<td>³</td>
<td>³</td>
<td>³</td>
<td>³</td>
</tr>
</tbody>
</table>
Uyghur to Mongolian
2. Eliminating historic and stylistic variations
Historic and Stylistic variations

• Historic forms that are no longer in use. For example:
  • ṁ (s)
  • ṇ (e)
  • ḍ (i)
  • ḍ (o)
  • ṇ (k) and so on...

• Stylistic forms that could be shaped by font designs
  • - ṇ etc.
3. Possible ways to write separated suffixes without NNBSP
Using FVSx to write suffixes

• NNBSP and SP would be the choice of the person who is using.
• In many documents, there are lines starting with suffixes.

Using ZWJ to write suffixes

• ZWJ is used to show the joining variation, just what exactly Mongolian separated suffixes nature is
Proposal which already made on the usage of FVSx

• https://www.unicode.org/L2/L2018/18099-mwg2-1-mong-proposal.pdf
Using ZWJ to write suffixes

\[ q + o + t + a + n (2^{\text{nd}} \text{ v.}) + \text{SP/NNBSP} + ZWJ + a (2^{\text{nd}} \text{ v.}) \]

\[ ᠵᠤᠲᠠᠨ‍ᠤᠨ \]

\[ n + o + m + \text{SP/NNBSP} + ZWJ + u + n \]

\[ ᠪᠤᠵᠤ \]

\[ n + a + r + a + \text{SP/NNBSP} + ZWJ + y (2^{\text{nd}} \text{ v.}) + i \]

\[ ᠨᠠᠷᠠᠶᠢ \]