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ISO/IEC JTC 1/SC 2/WG 2

Universal Multiple — Octed Character Set
(UCS)

ISO/IEC/JTC 1/SC 2/WG 2N 1711

February 15,1998

Title: The Working Meeting on Mongolian Encoding Attended by Representatives of China and Mongolia

Source: China,Mongolia

Status: For discussion

Action: For consideration of SC 2/ WG2

Distribution: ISO/IEC JTC1/SC2/WG2

A Summary of the Working Meeting on Mongolian Encoding
Attended by Representatives of China and Mongolia

I Document Status and Present Situation

1) After we mailed to scholars concerned the Mongolian Encoding proposal adopted at the 4th International Conference on Mongolian Encoding in Ulanbaatar in August, 1997, attended by representatives from China, Germany and Mongolia, we have received some feedbacks. Chinese and Mongolian experts concerned have a working meeting for Monglian encoding in Hohhot on February 12-15, 1998, at which the feedbacks are carefully discussed.

2) Participants in the working meeting:

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From China:

—Jimuyan (NACIM)

    —Sergeleng (IMATS)

    —Choijinzhab (IMU)

    —Huashabao (IMU)

    —Nasan—urtu (IMU)

    —Garudi (IMNU)

    —Jirumtu (IMCC)

    —Altansha (NACIM)

    —Heshigduureng (NACIM)

From Mongolia:

    —D. Orgilt (MNCSM)

    —Yu. Namsrai (TUN)

II Agreement of the Working Meeting

Participants of both sides reach the following agreement:

1) Since there exists, in the Mongolian writing system, a connection rule to link up all letters with the nirugu as their middle axis, each letter has at least two or even as many as some ten variations depending on their different positions in a word. Therefore, quite different from the orthography of Western languages like Latin, Cyrillic or Greek, the Mongolian encoding requires a rule for changing the forms of its letters, i. e. , to change its canonical characters into presentation forms. However, then there appears a shortcoming in changing the forms of letters according to such a rule, i. e. , the inability to express arbitrary sequences of characters not to be governed by the rule.

2) In view of the above, in order to make enable the expressing of arbitrary sequences not governed by the letter-changing rule, while taking the letter-changing rule in the Mongolian Encoding Proposal adopted at Ulaanbaatar in 1997 as

our basis, we have decided to remove the position marker ⊡ from the proposal and instead, add to it four new position markers: the isolated form ⟦ISF⟧, the initial form ⟦INF⟧, the medial form ⟦MEF⟧ and the final form ⟦FIF⟧, and put all these four position markers in places 028, 029, 030 and 031 in the Mongolian Basic Character Set. Rules for using these four position markers are to be indicated in Appendix III.

3) Relevant articles in Appendix I and Appendix II of the proposal are to be modified in accordance with 2) as mentioned above.

4) Apart from the two free variation selectors already found in the proposal, a third one ⟦FVS3⟧ is adopted and these three selectors are placed respectively in the positions 013, 014 and 015 in the Mongolian Basic Character Set. Cases where they are applied should be indicated in the Mongolian Reference Table and instructions for the usage of ⟦FVS1⟧, ⟦FVS2⟧ and ⟦FVS3⟧ in brackets to be included in Appendix I.

5) In Appendix I, a new variation ↗ of Mongolian letter E is to be added after the form ↗ under 033-ᢩ and a new variation ↗ of Mongolian letter NA added after the form ↪ under 040-↪ .

6) In Appendix II, the explanation of the nirugu should be changed into "a connection line used merely for the linking-up of letters".

7) In Appendix II, the term SYLLABLE is to be changed into LIGATURE.
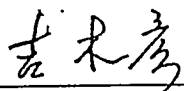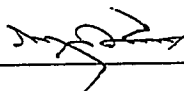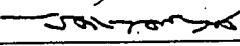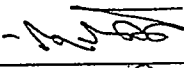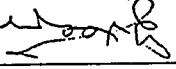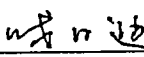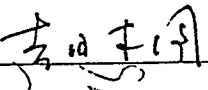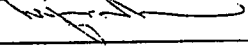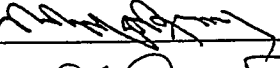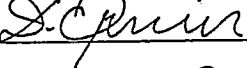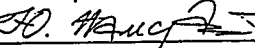
8) The position markers ⟦ISF⟧, ⟦INF⟧, ⟦MEF⟧ and ⟦FIF⟧ take priority of any other rules except that for the ligature, which is to be indicated in Appendix II.

II Measures to be Adopted

1) Based on what is agreed upon at the present meeting, a new revised version of the Mongolian Encoding Proposal should be worked out without delay and be submitted for discussion to the Mongolian Encoding Group of the 34 th ISO/IEC/JTC1/SC2/WG2 Conference that will be held in Seattle, U. S. A. , in March, 1998.

2) We work closely together in order to transform the results of our meeting into an international standard. Therefore, we will submit our decisions not only to ISO/IEC JTC1/SC2/WG2 but will also introduce and explain them to other

standardization bodies, interested parties and experts. Since it is difficult to avoid that some decisions of the agreed document may again undergo technical revision, the participants will settle these issues in another meeting. After the participants have reached an agreement, that document will be submitted to ISO.

Jimuyan, NACIM, China

Sergeleng, IMATS, China

Choijinzhab, IMU, China

Huashabao, IMU, China

Nasan—urtu, IMU, China

Garudi IMNU, China

Jirumtu IMCC, China

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Document Status and Present Situation

After we mailed to scholars concerned the Mongolian Encoding proposal (N 1691) adopted at the 4th International Conference on Mongolian Encoding in Ulanbaatar in August, 1997, attended by representatives from China, Germany and Mongolia, we have received some feedbacks. Chinese and Mongolian experts concerned have a working meeting for Monglian encoding in Hohhot on February 12-15, 1998, at which the feedbacks are carefully discussed. The participants have reached a consistent opinion on the questions discussed and made some corresponding modifications to《 N 1691 》. Thus this proposal is produced. The meeting has decided to submit "Mongolian Character Set" to the WG2 meeting to be held in March, 1998.

Participants in the working meeting:

From China:

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Mongolian Character Encoding Conventions

1. The Mongolian script character set is an encoding proposal of Mongolian scripts which includes Mongolian letters, Todo letters, Sibe letters, Manchu letters and the Ali Gali letters (used for the transcription of Tibetan and Sanskrit), their punctuation marks, digits and control characters. The written languages Todo, Sibe and Manchu all share the Mongolian letters.

This proposal only encodes nominal characters. Ligatures which are logically larger than one character unit and graphemes which are logically smaller than one character unit are excluded from the encoding.

2. The encoding is given in the sequence
   - punctuation marks
   - digits
   - letters

The letters comprise Mongolian letters, Mongolian Todo letters, Mongolian Sibe letters, Mongolian Manchu letters and the Ali Gali letters.

Many Mongolian, Todo, Sibe and Manchu characters have variants according to their different positions in the word (initial, medial or final). Sometimes, there can be more than ten variants for a given character.

According to the relevant principles of ISO/IEC 10646, only one of those variants is to be encoded. This form is named "basic character". For the vowels, their isolated forms are adopted. For the consonants, only their variant appearing before the vowel "A" is adopted. All other forms are classified as "presentation forms". Some characters of these different scripts have the same shape as the canonical character or the initial form but different shapes when used in medial or final position. As an exception to the previous rule, in order to indicate such difference between characters in different scripts, presentation forms are adopted as basic characters. For example, the medial form of the character ANG in Mongolian, Todo, Sibe and Manchu is ᠊, its final form is ᠭ in Mongolian and Manchu, ᠭ in Todo, and ᠭ in Sibe. In order to emphasize this difference, the medial form ᠊ is chosen as basic character for Mon-

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golian and Manchu, the final form ᠮᠴᠣ is chosen for Todo and the final form ᠮᠴᠣ is chosen for Sibe. This exceptional treatment covers the following Todo, Sibe and Manchu letters:

ᠮᠴᠣ (TODO BA), ᠊ᠠ (TODO MA) , ᠊ᠷ (TODO TSA), ᠷ (TODO YA), ᠬᡍᠷ (TODO HAA); ᠊ᠠ (SIBE E), ᡍᠷ (SIBE I), ᡍᠷ (SIBE U), ᠊ᠠ (SIBE KA), ᠊ᠠ (SIBE TA), ᠊ᠠ (SIBE DA), ᠷ (SIBE JA); ᡍᠷ (MANCHU), ᠊ᠠ (MANCHU KA), ᡍᠷ (MANCHU RA), ᠊ᠠ (MANCHU FA).

3. Four characters require special treatment. The two Mongolian character pairs O and U as well as OE and UE have almost the same shape both as basic characters and in their presentation forms. However, in Mongolian, these four characters are independent, mutually exclusive and have different meanings despite of their identical forms. For example, ᠪᠣᠳᠣ (BODO) means "to think", ᠪᠣᠳᠣ (BUDU) means "to dye", ᠥᠭᠡᠯᠡᠬᠦ (OEGELEHUE) means "to trim" and ᠥᠭᠡᠯᠡᠬᠦ (UEGELEHUE) means "to make a statement". These words are distinguished by different treatments of the four vowels O, U, OE, and UE. Thus, in the Basic Character Set, the four vowels are encoded as ᠣ (isolated form of O), ᠣ᠊ (initial form of U), ᠥ (isolated form of OE), and ᠥ᠊ (initial form of UE). In this way, the problems specific to Mongolian vowels are settled and accordance with ISO/IEC 10646 is achieved.

4. The basic characters of Mongolian, Todo, Sibe and Manchu are unified according to their shapes. The names of the unified characters are listed in the order of Mongolian, Todo, Sibe and Manchu; the name of the first representative in this list is taken as the character name. Letters used only in Mongolian and letters shared with in the other scripts are found under MONGOLIAN LETTER. The letters used exclusively in Todo are under MONGOLIAN LETTER TODO. The letters used exclusively in Sibe and those shared with Manchu are under MONGOLIAN LETTER SIBE. The letters used exclusively in Manchu are under MONGOLIAN LETTER MANCHU.

The punctuation marks and the control symbols used in more than two of the scripts are indicated as "MONGOLIAN"; the digits are shown as "MONGOLIAN DIGIT"; the punctuation marks used exclusively in Todo, Sibe or Manchu are indicated as "MONGOLIAN TODO", " MONGOLIAN SIBE" or "MONGOLIAN MANCHU" respectively. The Ali Gali letters in the three scripts Mongolian, Todo and Manchu are named" MONGOLIAN LETTER AG", " MONGOLIAN LETTER TODO AG", "MONGOLIAN LETTER MANCHU AG".

5. The unified forms of the basic characters of the four scripts and variants of their respective

names are recorded in the "Mongolian Reference Table".

6. The unified basic characters are arranged in the order of Mongolian, Todo, Sibe, Manchu and Ali Gali characters.

7. In the majority of cases, the presentation forms of all four scripts can be determined by their position and other constraints. However, there is a very small number of cases where the proper forms cannot be distinguished by word-internal constraints alone. In order to distinguish these, various control characters are used. Their use is explained in the text accompanying the Mongolian Reference Table and Explanation of Peculiar Punctuation Marks and Control Symbols in Mongolian.

8. The presentation form set of Mongolian, Todo, Sibe, and Manchu as well as Ali Gali is listed separately in the Mongolian Reference Table.

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A Grammar Describing the Transition

from Mongolian Canonical Letters

to their Corresponding Presentation Forms

1 Fundamentals

The following text states, in shortest form possible, the properties of the Mongolian Basic Character Set (which contains canonical characters) and the rules necessary to generate the presentation forms out of the Basic Character Set.

D 1 Mongolian is an alphabetical script.

D 2 Most Mongolian basic letters assume different presentational forms.

D 3 Form variation can be obligatory or free.

–Obligatory form variation is caused by one or more of the following factors:

> **Position** which can be one of five:
>
>> 1. isolated,
>>
>> 2. initial,
>>
>> 3. medial,
>>
>> 4. final, or
>>
>> 5. the syllable count (in case of front vowels);
>
> **Vowel Gender** which influences certain consonants;
>
> **Graphical Properties** which make the graphical form of a character dependant on the graphical form of the immediate neighbour, resulting in so-called compulsary ligatures;

–Free form variation cannot be decided by any of the above mentioned context; it is determined by lexical meaning; unlike the previous conditions, more than one graphical form is legal in a given position.

D 4 The rules for generating any of presentational forms must not change. They are independent of positional etc. considerations.

2 Transition Grammar

From the four definitions above we derive the following grammatical rules:

D 5 A sequence of 3 tokens is enough to decide all cases.

$$T_{n-1} + T_n + T_{n+1}$$

The machine keeps T_{n-1} and its transformation result in a state table and processes only the central token (T_n) while looking ahead one token, here T_{n+1}.

D 6 A token is : a character or

- an unspecified ,non-boundary environment represented by the Environment Marker,

- a boundary;

D 7 A character is : a basic character or

- a basic character followed by Free Variation Selecter,

- the Nirugu,

- the non-printing Mongolian Space,

- the non-printing Mongolian Vowel Separator;

D 8 A boundary is : ordinary white space or

- the beginning of the line,

- the end of the line,

- the beginning of the file,

- the end of the file,

- any punctuation mark or number,

- any non-Mongolian character.

Mongolian Basic Character Set

	00	01	02	03	04	05	06	07
0	000	016	032	048	064	080	096	112
1	001	017	033	049	065	081	097	113
2	002	018	034	050	066	082	098	114
3	003	019	035	051	067	083	099	115
4	004	020	036	052	068	084	100	116
5	005	021	037	053	069	085	101	117
6	006	022	038	054	070	086	102	118
7	007 (?!)	023	039	055	071	087	103	119
8	008	024	040	056	072	088	104	120
9	009	025	041	057	073	089	105	121
A	010	026	042	058	074	090	106	122
B	011	027 [MVS]	043	059	075	091	107	123
C	012	028 [ISF]	044	060	076	092	108	124
D	013 [FVS1]	029 [INF]	045	061	077	093	109	125
E	014 [FVS2]	030 [MEF]	046	062	078	094	110	126
F	015 [FVS3]	031 [FIF]	047	063	079	095	111	127

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	08	09	0A	0B	0C	0D	0E	0F
0	128	144	160	176	192	208	224	240
1	129	145	161	177	193	209	225	241
2	130	146	162	178	194	210	226	242
3	131	147	163	179	195	211	227	243
4	132	148	164	180	196	212	228	244
5	133	149	165	181	197	213	229	245
6	134	150	166	182	198	214	230	246
7	135	151	167	183	199	215	231	247
8	136	152	168	184	200	216	232	248
9	137	153	169	185	201	217	233	249
A	138	154	170	186	202	218	234	250
B	139	155	171	187	203	219	235	251
C	140	156	172	188	204	220	236	252
D	141	157	173	189	205	221	237	253
E	142	158	174	190	206	222	238	254
F	143	159	175	191	207	223	239	255

dec	hex	Name
000	00	MONGOLIAN SPACE
001	01	MONGOLIAN BIRGA
002	02	MONGOLIAN ELLIPSIS
003	03	MONGOLIAN COMMA
004	04	MONGOLIAN PERIOD
005	05	MONGOLIAN COLON
006	06	MONGOLIAN FOUR DOTS
007	07	MONGOLIAN COMBINATION SYMBOL
008	08	MONGOLIAN TODO SOFT HYPHEN
009	09	MONGOLIAN SIBE SYLLABLE BOUNDARY MARKER
010	0A	MONGOLIAN MANCHU COMMA
011	0B	MONGOLIAN MANCHU PERIOD
012	0C	MONGOLIN NIRUGU
013	0D	MONGOLIAN FREE VARIATION SELECTOR ONE
014	0E	MONGOLIAN FREE VARIATION SELECTOR TWO
015	0F	MONGOLIAN FREE VARIATION SELECTOR THREE
016	10	MONGOLIAN DIGIT ZERO
017	11	MONGOLIAN DIGIT ONE
018	12	MONGOLIAN DIGIT TWO
019	13	MONGOLIAN DIGIT THREE
020	14	MONGOLIAN DIGIT FOUR
021	15	MONGOLIAN DIGIT FIVE
022	16	MONGOLIAN DIGIT SIX
023	17	MONGOLIAN DIGIT SEVEN
024	18	MONGOLIAN DIGIT EIGHT
025	19	MONGOLIAN DIGIT NINE
026	1A	(THIS POSITION SHALL NOT BE USED)
027	1B	MONGOLIAN VOWEL SEPARATOR
028	1C	MONGOLIAN ISOLATED FORM.
029	1D	MONGOLIAN INITIAL FORM.
030	1E	MONGOLIAN MEDIAL FORM.
031	1F	MONGOLIAN FINAL FORM.
032	20	MONGOLIAN LETTER A
033	21	MONGOLIAN LETTER E
034	22	MONGOLIAN LETTER I
035	23	MONGOLIAN LETTER O
036	24	MONGOLIAN LETTER U
037	25	MONGOLIAN LETTER OE
038	26	MONGOLIAN LETTER UE
039	27	MONGOLIAN LETTER EE
040	28	MONGOLIAN LETTER NA
041	29	MONGOLIAN LETTER ANG
042	2A	MONGOLIAN LETTER BA
043	2B	MONGOLIAN LETTER PA
044	2C	MONGOLIAN LETTER QA
045	2D	MONGOLIAN LETTER GA
046	2E	MONGOLIAN LETTER MA
047	2F	MONGOLIAN LETTER LA
048	30	MONGOLIAN LETTER SA
049	31	MONGOLIAN LETTER SHA
050	32	MONGOLIAN LETTER TA
051	33	MONGOLIAN LETTER DA
052	34	MONGOLIAN LETTER CHA
053	35	MONGOLIAN LETTER JA
054	36	MONGOLIAN LETTER YA
055	37	MONGOLIAN LETTER RA
056	38	MONGOLIAN LETTER WA
057	39	MONGOLIAN LETTER FA
058	3A	MONGOLIAN LETTER KA
059	3B	MONGOLIAN LETTER KHA
060	3C	MONGOLIAN LETTER TSA
061	3D	MONGOLIAN LETTER ZA
062	3E	MONGOLIAN LETTER HAA
063	3F	MONGOLIAN LETTER ZRA
064	40	MONGOLIAN LETTER LHA
065	41	MONGOLIAN LETTER ZHI
066	42	MONGOLIAN LETTER CHI
067	43	MONGOLIAN LETTER TODO LONG VOWEL SIGN
068	44	MONGOLIAN LETTER TODO E
069	45	MONGOLIAN LETTER TODO I
070	46	MONGOLIAN LETTER TODO O
071	47	MONGOLIAN LETTER TODO U
072	48	MONGOLIAN LETTER TODO OE
073	49	MONGOLIAN LETTER TODO UE
074	4A	MONGOLIAN LETTER TODO ANG
075	4B	MONGOLIAN LETTER TODO BA
076	4C	MONGOLIAN LETTER TODO PA
077	4D	MONGOLIAN LETTER TODO QA
078	4E	MONGOLIAN LETTER TODO GA
079	4F	MONGOLIAN LETTER TODO MA
080	50	MONGOLIAN LETTER TODO TA
081	51	MONGOLIAN LETTER TODO DA
082	52	MONGOLIAN LETTER TODO CHA
083	53	MONGOLIAN LETTER TODO JA
084	54	MONGOLIAN LETTER TODO TSA
085	55	MONGOLIAN LETTER TODO YA
086	56	MONGOLIAN LETTER TODO WA
087	57	MONGOLIAN LETTER TODO KA
088	58	MONGOLIAN LETTER TODO GAA
089	59	MONGOLIAN LETTER TODO HAA
090	5A	MONGOLIAN LETTER TODO JIA
091	5B	MONGOLIAN LETTER TODO NIA
092	5C	MONGOLIAN LETTER TODO DZA
093	5D	MONGOLIAN LETTER SIBE E
094	5E	MONGOLIAN LETTER SIBE I
095	5F	MONGOLIAN LETTER SIBE IY
096	60	MONGOLIAN LETTER SIBE UE
097	61	MONGOLIAN LETTER SIBE U
098	62	MONGOLIAN LETTER SIBE ANG
099	63	MONGOLIAN LETTER SIBE KA
100	64	MONGOLIAN LETTER SIBE GA
101	65	MONGOLIAN LETTER SIBE HA
102	66	MONGOLIAN LETTER SIBE PA
103	67	MONGOLIAN LETTER SIBE SHA
104	68	MONGOLIAN LETTER SIBE TA
105	69	MONGOLIAN LETTER SIBE DA
106	6A	MONGOLIAN LETTER SIBE JA
107	6B	MONGOLIAN LETTER SIBE FA
108	6C	MONGOLIAN LETTER SIBE GAA
109	6D	MONGOLIAN LETTER SIBE HAA
110	6E	MONGOLIAN LETTER SIBE TSA
111	6F	MONGOLIAN LETTER SIBE ZA
112	70	MONGOLIAN LETTER SIBE RAA
113	71	MONGOLIAN LETTER SIBE CHA
114	72	MONGOLIAN LETTER SIBE ZHA
115	73	MONGOLIAN LETTER MANCHU I
116	74	MONGOLIAN LETTER MANCHU KA
117	75	MONGOLIAN LETTER MANCHU RA
118	76	MONGOLIAN LETTER MANCHU FA
119	77	MONGOLIAN LETTER MANCHU ZHA
120	78	(THIS POSITION SHALL NOT BE USED)
121	79	(THIS POSITION SHALL NOT BE USED)
122	7A	(THIS POSITION SHALL NOT BE USED)
123	7B	(THIS POSITION SHALL NOT BE USED)
124	7C	(THIS POSITION SHALL NOT BE USED)
125	7D	(THIS POSITION SHALL NOT BE USED)
126	7E	(THIS POSITION SHALL NOT BE USED)
127	7F	(THIS POSITION SHALL NOT BE USED)

dec	hex	Name
128	80	MONGOLIAN LETTER AG ANUSVARA ONE
129	81	MONGOLIAN LETTER AG VISARGA ONE
130	82	MONGOLIAN LETTER AG DAMARU
131	83	MONGOLIAN LETTER AG UBADAMA
132	84	MONGOLIAN LETTER AG INVERTED UBADAMA
133	85	MONGOLIAN LETTER AG BALUDA
134	86	MONGOLIAN LETTER AG THREE BALUDA
135	87	MONGOLIAN LETTER AG A
136	88	MONGOLIAN LETTER AG I
137	89	MONGOLIAN LETTER AG KA
138	8A	MONGOLIAN LETTER AG NGA
139	8B	MONGOLIAN LETTER AG CA
140	8C	MONGOLIAN LETTER AG TTA
141	8D	MONGOLIAN LETTER AG TTHA
142	8E	MONGOLIAN LETTER AG DDA
143	8F	MONGOLIAN LETTER AG NNA
144	90	MONGOLIAN LETTER AG TA
145	91	MONGOLIAN LETTER AG DA
146	92	MONGOLIAN LETTER AG PA
147	93	MONGOLIAN LETTER AG PHA
148	94	MONGOLIAN LETTER AG SSA
149	95	MONGOLIAN LETTER AG ZHA
150	96	MONGOLIAN LETTER AG ZA
151	97	MONGOLIAN LETTER AG AH
152	98	MONGOLIAN LETTER MANCHU AG TA
153	99	MONGOLIAN LETTER MANCHU AG ZHA
154	9A	MONGOLIAN LETTER MANCHU AG GHA
155	9B	MONGOLIAN LETTER MANCHU AG NGA
156	9C	MONGOLIAN LETTER MANCHU AG CA
157	9D	MONGOLIAN LETTER MANCHU AG JHA
158	9E	MONGOLIAN LETTER MANCHU AG TTA
159	9F	MONGOLIAN LETTER MANCHU AG DDHA
160	A0	MONGOLIAN LETTER MANCHU AG TA
161	A1	MONGOLIAN LETTER MANCHU AG DHA
162	A2	MONGOLIAN LETTER MANCHU AG SSA
163	A3	MONGOLIAN LETTER MANCHU AG CYA
164	A4	MONGOLIAN LETTER MANCHU AG ZHA
165	A5	MONGOLIAN LETTER MANCHU AG ZA
166	A6	MONGOLIAN LETTER AG HALF U
167	A7	MONGOLIAN LETTER AG HALF YA
168	A8	MONGOLIAN LETTER MANCHU AG BHA
169	A9	MONGOLIAN LETTER AG DAGALGA
170	AA	(THIS POSITION SHALL NOT BE USED)
171	AB	(THIS POSITION SHALL NOT BE USED)
172	AC	(THIS POSITION SHALL NOT BE USED)
173	AD	(THIS POSITION SHALL NOT BE USED)
174	AE	(THIS POSITION SHALL NOT BE USED)
175	AF	(THIS POSITION SHALL NOT BE USED)

《 Mongolian Reference Table 》

Explanation of《 Mongolian Reference Table 》.

1. The present table is compiled with a view to ensuring a unified use of 《Mongolian Character Encoding Conventions 》 as well as meeting·the needs for popularizing such an encoding system.

2. The content of 《Basic Characters 》 in the present table and their names in it are identical to those in 《Mongolian Basic Character Set 》 of our proposal.

3. In 《Presentation Forms 》 of the present table are listed all varied presentation characters and their names.

   ① Varied presentation forms are grouped under their respective letters,and arranged in the order indicated in 《Mongolian Basic Character Set 》.

   ② The varied presentation forms of each letter are arranged in the order of 《independent form 》,《initial form 》,《medial form 》 and 《final form 》, with the 《masculine form 》 preceeding the 《feminine form 》 where there is such a gender distinction.

   ③ When a certain varied presentation form appears for the first time,we should indicate its serial number among all the varied presentation forms of the letter concerned,and also its general serial number in the column 《Presentation Total No. 》;when it appears for a second time or repeatedly, then we should smear the block 《Presentation Form 》 in light black,indicating only the serial number of 《Basic Characters 》 or the serial number among the varied presentation forms of·the given letter for its first appearance.

   ④ The name of a varied presentation form should be written in lower case with a view to distinguish it from the name in 《Basic Characters 》.

4. In the 《Unification Table 》,each letter is unified in the order of Mongolian,

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.Todo,Sibe and Manchu languages with its name in each language marked.

5. In the 《Presentation Rule》 is listed the separately recorded forms (the different 《Varied Presentation Forms》 not within a word) of each letter,i. e. , a basic character is combined with a varied presentation form in use. When doing this,the white black changes and brackets of the "variation selector" should be igored, only the form of the black printing on white base is used.

In normal cases, the "position markers" ISF 、INF 、MEF and FTF are deleted when writing these variants in words.

When writing these variants in words together with the using of the "variation selector", there are the following cases:

① Black printing of "variation selector" written on white base are remained.

② White printing of "variation selector" written on black base are deleted.

③ It is determined by certain concrete conditions whether to remain or delete " variation selector" in brackets. See the concrete conditions in Appendix 3.

Mongolian Reference Table

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M①	T②	S③	MA④	RULE	TOTAL NO
000	☐	M① SPACE		☐		msp	msp	msp	msp		
001	᠊	M. BIRGA		᠊		br	br			᠊	
			1	᠊	birga first form	br	br			᠊	000 ⟨ISF⟩
			2	᠊	birga second form	br	br			᠊	001 ⟨INF⟩
			3	᠊	birga third form	br	br			᠊	002 ⟨MBH⟩
			4	᠊	birga fourth form	br	br			᠊	003 ⟨FIF⟩
002	….	M. ELLIPSIS		….		el	el	el	el	….	
003	᠂	M. COMMA		᠂		cm	el			᠂	
004	᠃	M. PERIOD		᠃		pr	el	el	el	᠃	
005	᠄	M. COLON		᠄		el	cl	cl	cl	᠄	
006	᠅	M. FOUR DOTS		᠅		fd	fd			᠅	
007	?!	M. COMBINATORY SYMBOL		?!		cs	cs			?!	
			1	!?	combinatory symbol alternative form	cs	cs			?!	004 ⟨EVS⟩
008	᠆	MT② SOFT HYPHEN		᠆			sh			᠆	
009	᠇	MS③ SILLABLE BOUNDARY MARKER		᠇				sbm		᠇	
010	᠉	MM. ④ COMMA		᠉					cm	᠉	
011	᠊᠊	MM. PERIOD		᠊᠊					pr	᠊᠊	

① M. = MONGOLIAN
② MT. = MONGOLIAN TODO
③ MS. = MONGOLIAN SIBE
④ MM. = MONGOLIAN MANCHU

① M = MONGOL
② T = TODO
③ S = SIBE
④ MA = MANCHU

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BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARAC-TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
012	▪	M. NIRUGU		▪		nr	nr	nr	nr	▪	
016	0	MD.①ZERO		0		ze	ze			0	
017		MD.ONE				on	on				
018		MD.TWO				tw	tw				
019		MD.THREE				th	th				
020		MD.FOUR				fo	fo				
021		MD.FIVE				fi	fi				
022		MD.SIX				si	si				
023		MD.SEVEN				se	se				
024		MD.EIGHT				ei	ei				
025		MD.NINE				ni	ni				
032		ML.② A			ml. a first isolate form	a	a	a	a		
			033		ml. a second isolate form	a				ISF EVS1	
			1		ml. a initial form	a	a	a	a	INF	005
			2		ml. a first medial form	a	a	a	a	MEF	006
			3		ml. a second medial form	a				MEF EVS2	007
			4		ml. a third medial form	a	a	a		MEF EVS1	008
			5		ml. a final form	a	a	a	a	FIF	009
			6		ml. a connected final form	a				FIF EVS1	010
			7		ml. a separate final form	a	a	a	a	FIF EVS2	011

① MD. = MONGOLIAN DIGIT
② ML. = MONGOLIAN LETTER

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
033	ᠤ	ML. E		ᠤ	ml. e isolate form	e				ISF	
			032-3		ml. e first initial form	e		e	e	INF	
			032-1		ml. e second initial form	e				INF FVS1	
			032-2		ml. e medial form	e		e	e	MEF	
			032-5		ml. e final form	e				FIF	
			032-7		ml. e separate final form	e				FIF FVS1	
034	ᠢ	ML. I	1	ᠢ	ml. i isolate form	i				ISF	
					ml. i initial form	i				INF	012
			053		ml. i first medial form	i				MEF	
			094		ml. i second medial form	i				MEF FVS1	
			2		ml. i final form	i				FIF	013
035	ᠣ	ML. O		ᠣ	ml. o isolate form	o		o	o	ISF	
			036		ml. o initial form	o		o	o	INF	
			1		ml. o first medial form	o		o	o	MEF	014
			2		ml. o second medial form	o		o		MEF FVS1	015
			3		ml. o first final form	o		o	o	FIF	016
			4		ml. o second final form	o		o		FIF FVS1	017

No	BASIC CHARACTERS CHARACTERS	NAME	No	PRESENTATION FORMS GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
036	ᠤ	ML. U	035		ml. u isolate form	u				ISF	
					ml. u initial form	u				INF	
			035-1		ml. u first medial form	u				MEF	
			035-2		ml. u second medial form	u				MEF FVS1	
			035-3		ml. u final form	u				FIF	
037	ᠥ	ML. OE			ml. oe isolate form	oe				ISF	
			038		ml. oe initial form	oe				INF	
			097		ml. oe first medial form	oe				MEF FVS1	
			035-1		ml. oe second medial form	oe				MEF	
			1		ml. oe third medial form	oe				MEF FVS2	018
					ml. oe first final form	oe				FIF	
			035-3	2	ml. oe second final form	oe				FIF FVS1	019
038	ᠦ	ML. UE	037		ml. ue first isolate form	ue				ISF	
			073		ml. ue second isolate form	ue				ISF FVS1	
					ml. ue initial form	ue				INF	
			097		ml. ue first medial form	ue				MEF FVS1	
			035-1		ml. ue second medial form	ue				MEF	
			037-1		ml. ue third medial form	ue				MEF FVS2	
			035-3		ml. ue first final form	ue				FIF	
			037-2		ml. ue second final form	ue				FIF FVS1	

No	CHARACTERS	NAME	No.	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
		BASIC CHARACTERS			PRESENTATION FORMS		UNIFICATION TABLE			PRESENTATION	
039	꯶	ML. EE		꯶	ml. ee isolate form	ee				ISF	
			056 1	꯶	ml. ee initial form	ee				INF	020
				꯶	ml. ee medial form	ee				MEF	
			2	꯶	ml. ee final form	ee				FIF	021
040	꯶	ML. NA		꯶	ml. na first initial form	na	na	na	na	INF	
			032−3	꯶	ml. na second initial form	na				INF FVS1	
			1	꯶	ml. na medial form with dots	na	na	na	na	MEF (FVS1)	022
			032−2	꯶	ml. na medial form	na	na	na	na	(FVS2)	
			2	꯶	ml. na final form with dots	na	na	na	na	FIF (FVS1)	023
			032−5	꯶	ml. na final form	na	na	na	na	(FVS2)	
			3	꯶	ml. na medial separate form		na	na	na	MEF FVS2	024
041	꯶	ML. ANG		꯶	ml. ang medial form	ang			ang	MEF	
			1	꯶	ml. ang final form	ang			ang	FIF	025
042	꯶	ML. BA		꯶	ml. ba initial form	ba		ba	ba	INF	
			042 1	꯶	ml. ba medial form	ba		ba	ba	MEF	026
				꯶	ml. ba final form	ba		ba	ba	FIF	
			075	꯶	ml. ba alternative form	ba				FIF FVS1	
043	꯶	ML. PA		꯶	ml. pa initial form	pa				INF	
			043	꯶	ml. pa medial form	pa				MEF	
			1	꯶	ml. pa final form	pa				FIF	027

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARAC-TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
044	🔣	ML. QA		🔣	ml. qa initial form	qa				INF	
			045	🔣	ml. qa initial form with dots	qa				INF FVS1	
			032–4	🔣	ml. qa first medial form	qa				MEF	
			045–1	🔣	ml. qa first medial form with dots	qa				MEF FVS1	028
			1	🔣	ml. qa second medial form	qa				MEF FVS2	
			045–2	🔣	ml. qa second medial form with dots	qa				MEF FVS3	
			137	🔣	ml. qa feminine isolate form	qa				ISF	
			2	🔣	ml. qa feminine isolate form with dots	qa				ISF FVS1	029
045	🔣	ML. GA		🔣	ml. ga initial form with dots	ga				INF	
			044	🔣	ml. ga initial form	ga				INF FVS1	
			032–4	🔣	ml. ga medial form	ga				MEF	
			1	🔣	ml. ga first medial form with dots	ga				MEF FVS1	030
			2	🔣	ml. ga second medial form with dots	ga				MEF FVS2	031
				🔣	ml. ga final form	ga				FTF	
			044–1 3	🔣	ml. ga feminine isolate form	ga				ISF	
			137 4	🔣	ml. ga feminine medial form	ga				MEF FVS1	032
				🔣	ml. ga feminine final form	ga				FTF (FVS1)	033
046	🔣	ML. MA		🔣	ml. ma initial form	ma		ma	ma	INF	
			1	🔣	ml. ma medial form	ma		ma	ma	MEF	034
			2	🔣	ml. ma final form	ma		ma	ma	FTF	035

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
047	ᠯ	ML. LA		ᠯ	ml. la initial form	la	la	la	la	INF	
			1	ᠯ	ml. la medial form	la	la	la	la	MEF	036
			2.	ᠯ	ml. la final form	la	la	la	la	FIF	037
048	ᠰ	ML. SA		ᠰ	ml. sa initial form	sa	sa	sa	sa	INF	
			1	ᠰ	ml. sa medial form	sa	sa	sa	sa	MEF	038
			2	ᠰ	ml. sa first final form	sa	sa	sa	sa	FIF	039
			3	ᠰ	ml. sa old final form	sa				FIF FVS1	040
			4	ᠰ	ml. sa second final form	sa			sa	FIF FVS2	041
049	ᠱ	ML. SHA		ᠱ	ml. sha initial form	sha	sha			INF	
			1	ᠱ	ml. sha medial form	sha	sha			MEF	042
			2	ᠱ	ml. sha final form	sha	sha			FIF	043
050	ᠲ	ML. TA		ᠲ	ml. ta initial form	ta				INF	
			051 1		ml. ta first medial form	ta				MEF	044
			2	ᠲ	ml. ta second medial form	ta				MEF FVS1	045
				ᠲ	ml. ta final form	ta				FIF	
051	ᠳ	ML. DA		ᠳ	ml. da first initial form	da				INF	
			050		ml. da second initial form	da				INF	
			051		ml. da first medial form	da				MEF (FVS1)	
			1	ᠳ	ml. da second medial form	da				MEF	046
			2	ᠳ	ml. da first final form	da				FIF	047
			3	ᠳ	ml. da second final form	da				FIF FVS1	048

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
052	﹄	ML. CHA		﹄	ml. cha initial form	cha	za	cha	cha	FIF	
			1	﹄	ml. cha medial form	cha	za	cha	cha	MEF	049
			2	﹁	ml. cha final form	cha		cha	cha	FIF	050
053	﹁	ML. JA		﹁	ml. ja initial form	ja		ja	ja	INF	
			1	﹁	ml. ja medial form	ja			ja	MEF	051
			034–2	﹁	ml. ja first final form	ja				FIF PVSI	
			2	﹁	ml. ja second final form	ja				FIF	052
054	﹁	ML. YA		﹁	ml. ya first initial form	ya		ya	ya	INF	
			053	﹁	ml. ya second initial form	ya				INF FVSI	
			054	﹁	ml. ya first medial form	ya		ya	ya	MEF (FVSI)	
			053	﹁	ml. ya second medial form	ya				MEF	
			034–2	﹁	ml. ya final form	ya		ya	ya	FIF	
055	﹁	ML. RA		﹁	ml. ra initial form	ra	ra	ra	ra	INF	
			055	﹁	ml. ra medial form	ra	ra	ra	ra	MEF	
			1	﹁	ml. ra final form	ra	ra	ra		FIF	053
056	﹁	ML. WA		﹁	ml. wa initial form	wa	fa	wa	wa	INF	
			056	﹁	ml. wa medila form	wa	fa	wa	wa	MEF	
			039–2	﹁	ml. wa first final form	wa				FIF	
			035–3	﹁	ml. wa second final form	wa				FIF FVSI	

No	BASIC CHARACTERS CHARAC-TERS	NAME	No	PRESENTATION FORMS GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
057	ᲅ	ML. FA		ᲅ	ml. fa initial form	fa				INF	
			057	ᲅ	ml. fa medial form	fa				MEF	
			1	ᲅ	ml. fa final form	fa				FIF	054
058	ᲀ	ML. KA		ᲀ	ml. ka initial form	ka	ka	kaa	kaa	INF	
			058	ᲀ	ml. ka medial form	ka	ka	kaa	kaa	MEF	
			1	ᲀ	ml. ka final form	ka				FIF	055
059	ᲀ	ML. KHA		ᲀ	ml. kha initial form	kha	qa			INF	
			059	ᲀ	ml. kha medial form	kha	qa			MEF	
			1	ᲀ	ml. kha final form	kha	qa			FIF	056
060	ᴎ	ML. TSA		ᴎ	ml. tsa initial form	tsa				INF	
			1	ᴎ	ml. tsa medial form	tsa				MEF	057
			2	ᴎ	ml. tsa final form	tsa				FIF	058
061	ᴎ	ML. ZA		ᴎ	ml. za initial form	za				INF	
			1	ᴎ	ml. za medial form	za				MEF	059
			2	ᴎ	ml. za final form	za				FIF	060
062	ᲅ	ML. HAA		ᲅ	ml. haa initial form	haa				INF	
			065	ᲅ	ml. haa medila form	haa				MEF	
			1	ᲅ	ml. haa final form	haa				FIF	061

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARAC-TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
063	(glyph)	ML. ZRA		(glyph)	ml. zra initial form	zra				INF	
			063	(shaded)	ml. zra medial form	zra				MEF	
			1	(glyph)	ml. zra final form	zra				FIF	062
064	(glyph)	ML. LHA		(glyph)	ml. lha initial form	lha	lha			INF	
			1	(glyph)	ml. lha medial form	lha	lha			MEF	063
065	(glyph)	ML. ZHI		(glyph)		zhi					
066	(glyph)	ML. CHI		(glyph)		chi					
067	(glyph)	MLT.① LONG VOWEL SIGN		(glyph)	mlt. long vowel sign medial form		lvs			MEF	
			1	(glyph)	mlt. long vowel sign final form		lvs			FIF	064
068	(glyph)	MLT. E		(glyph)	mlt. e initial form		e			INF	
			1	(glyph)	mlt. e first medial form		e			MEF	065
			2	(glyph)	mlt. e second medial form		e			MEF FVS	066
069	(glyph)	MLT. I		(glyph)	mlt. i isolate form		i			ISF	
			1	(glyph)	mlt. i initial form		i			INF	067
			2	(glyph)	mlt. i first medial form		i			MEF	068
			3	(glyph)	mlt. i second medial form		i			MEF FVS	069
			4	(glyph)	mlt. i final form		i			FIF	070

① MLT. = MONGOLIAN LETTER TODO

No	BASIC CHARACTERS CHARACTERS	NAME	No	PRESENTATION FORMS GLYPH	NAME	M	T	S	MA	PRESENTATION RULE	TOTAL NO
070	ᠣ	MLT. O		ᠣ	mlt. o isolate form		o			ISF	
			1	ᠥ	mlt. o initial form		o			INF	071
			2	ᠥ	mlt. o first medial form		o			MEF	072
			3	ᠥ	mlt. o second medial form		o			MEF FVS1	073
			4	ᠥ	mlt. o final form		o			FIF	074
071	ᠤ	MLT. U		ᠤ	mlt. u first isolate form		u			ISF	
			1	ᠤ	mlt. u second isolate form		u			ISF FVS1	075
			2	ᠤ	mlt. u initial form		u			INF	076
		035 – 1	ᠤ	mlt. u first medial form		u			MEF	
			3	ᠤ	mlt. u second medial form		u			MEF FVS2	077
			4	ᠤ	mlt. u third medial form		u			MEF FVS1	078
			5	ᠤ	mlt. u first final form		u			FIF	079
		035 – 3	ᠤ	mlt. u second final form		u			FIF FVS1	
072	ᠥ	MLT. OE		ᠥ	mlt. oe isolate form		oe			ISF	
			1	ᠥ	mlt. oe initial form		oe			INF	080
			2	ᠥ	mlt. oe first medial form		oe			MEF	081
			3	ᠥ	mlt. oe second medial form		oe			MEF FVS1	082
			4	ᠥ	mlt. oe final form		oe			FIF	083

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No.	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
073	ᠥ	MLT. UE			mlt. ue first isolate form		ue			ISF	
			035		mlt. ue second isolate form		ue			ISF FVS1	
			036		mlt. ue initial form		ue			INF	
			035–1		mlt. ue first medial form		ue			MEF	
			035–2		mlt. ue second medial form		ue			MEF FVS1	
			035–3		mlt. ue final form		ue			FIF	
074	ᠩ	MLT. ANG	041		mlt. ang medial form		ang			MEF	
					mlt. ang final form		ang			FIF	
075	ᠪ	MLT. BA	042		mlt. ba initial form		ba			INF	
			042		mlt. ba medial form		ba			MEF	
					mlt. ba final form		ba			FIF	
076	ᠫ	MLT. PA			mlt. pa initial form		pa			INF	
			076		mlt. pa medial form		pa			MEF	
			1		mlt. pa final form		pa			FIF	084
077	ᠬ	MLT. QA			mlt. qa initial form		qa			INF	
			045–1		mlt. qa medial form with dots		qa			MEF	
			059		mlt. qa feminine initial form		qa			INF FVS1	
			059		mlt. qa feminine medial form		qa			MEF FVS1	
			059–1		mlt. qa final form		qa			FIF	

BASIC CHARACTERS			PRESENTATION / FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARAC-TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
078	ᵒ糸	MLT. GA		ᵒ糸	mlt. ga initial form		ga			INF	
			1	ᵒ糸	mlt. ga first medial form		ga			MEF	085
			2		mlt. ga second medial form		ga			MEF/LMSF	086
			3		mlt. ga final form		ga			FIF	087
			137		mlt. ga feminine isolate form	/	ga			ISF	
			046		mlt. ma initial form		ma			INF	
			046 – 1		mlt. ma medial form		ma			MEF	
079	ᶜ	MLT. MA		ᶜ	mlt. ma final form		ma			FIF	
080	ᶜ	MLT. TA		ᶜ	mlt. ta initial form		ta			INF	
			080		mlt. ta medial form		ta			MEF	088
			1		mlt. ta final form		ta			FIF	
081	ᴦ	MLT. DA		ᴦ	mlt. da initial form		da			INF	
			081		mlt. da medial form		da			MEF	
082	ᴰ	MLT. CHA		ᴰ	mlt. cha initial form		cha			INF	
			1		mlt. cha medial form		cha			MEF	089
			2		mlt. cha final form		cha			FIF	090
083	ᴺ	MLT. JA		ᴺ	mlt. ja initial form		ja			INF	
			1		mlt. ja medial form		ja			MEF	091
			2		mlt. ja final form		ja			FIF	092

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| No | BASIC CHARACTERS | | PRESENTATION FORMS | | | UNIFICATION TABLE | | | | PRESENTATION | |
	CHARAC-TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
084	٦	MLT. TSA		٦	mlt. tsa initial form		tsa			INF	
			053 – 1	٦	mlt. tsa medial form		tsa			MEF	
			053 – 2	٦	mlt. tsa final form		tsa			FIF	
085	٦	MLT. YA		٦	mlt. ya initial form		ya			INF	
			085	٦	mlt. ya medial form		ya			MEF	
086	٦	MLT. WA		٦	mlt. wa initial form		wa			INF	
			086	٦	mlt. wa medial form		wa			MEF	
			1	٦	mlt. wa final form		wa			FIF	093
087	٢	MLT. KA		٢	mlt. ka initial form		ka			INF	
			087	٢	mlt. ka medial form		ka			MEF	
			1	٢	mlt. ka final form		ka			FIF	094
088	٢	MLT. GAA		٢			gaa			INF	
			062	٢	mlt. haa initial form		haa			INF	
				٦	mlt. haa medial form		haa			MEF	095
089	٦	MLT. HAA		٦	mlt. haa final form		haa			FIF	
090	⟨jia⟩	MLT. JIA		⟨jia⟩			jia			⟨jia⟩	
091	⟨nia⟩	MLT. NIA		⟨nia⟩			nia			⟨nia⟩	

No	CHARAC- TERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
092	ꡘ	MLT. DZA			mlt. dza initial form					INF	
			1		mlt. dza medial form		dza			MEF	096
			2		mlt. dza final form		dza			FIF	097
			033		mls. e isolate form			e	e	ISF	
			032-3		mls. e initial form			e	e	INF	
			1		mls. e first medial form			e	e	MEF	098
			032-2		mls. e second medial form			e	e	MEF FVS1	
					mls. e first final form			e	e	FIF	
093		MLS. E	032-5		mls. e second final form			e	e	FIF FVS1	
			034		mls. i isolate form			i		ISF	
			034-1		mls. i initial form			i		INF	
			053		mls. i first medial form			i		MEF	
094		MLS. I			mls. i second medial form			i		MEF FVS1	
			1		mls. i third medial form			i		MEF FVS2	099
			034-2		mls. i first final form			i		FIF	
			2		mls. i second final form			i		FIF FVS1	100
			3		mls. i third final form			i		FIF FVS2	101
095		MLS. IY			mls. iy medial form			iy		MEF	
			1		mls. iy final form			iy		FIF	102

① MLS. = MONGOLIAN LETTER SIBE

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No	BASIC CHARACTERS		PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
096	ᠥ	MLS. UE		ᠥ	mls. ue isolate form			ue	ue	ISF	
			1	ᠥ	mls. ue initial form			ue	ue	INF	103
			2	ᠥ	mls. ue first medial form			ue	ue	MEF	104
			035 – 2	ᠥ	mls. ue second medial form			ue	ue	MEF [AVS]	
			3	ᠥ	mls. ue first final form			ue	ue	FIF	105
			035 – 4	ᠥ	mls. ue second final form			ue	ue	FIF [AVS]	
097	ᠤ	MLS. U	037	ᠤ	mls. u isolate form			u	u	ISF	
			038	ᠤ	mls. u initial form			u	u	INF	
				ᠤ	mls. u medial form			u	u	MEF	
			037 – 2	ᠤ	mls. u final form			u	u	FIF	
098	ᠠ	MLS. ANG	041	ᠠ	mls. ang medial form			ang		MEF	
				ᠠ	mls. ang final form			ang		FIF	
			044		mls. ka masculine initial form			ka		INF	
			032 – 4		mls. ka first medial form			ka		MEF	
			1		mls. ka second medial form			ka		MEF [AVS]	106
099	ᠺ	MLS. KA		ᠺ	mls. ka final form			ka		FIF	
			137		mls. ka feminine isolate form			ka		ISF	

No	CHARACTERS	NAME (BASIC CHARACTERS)	No	GLYPH	NAME (PRESENTATION FORMS)	M	T	S	MA	RULE	TOTAL NO
100	(glyph)	MLS. GA		(glyph)	mls. ga initial form			ga	ga	INF	
			1	(glyph)	mls. ga medial form			ga	ga	MEF	107
			2	(glyph)	mls. ga feminine isolate form			ga	ga	ISF	108
101	(glyph)	MLS. QA		(glyph)	mls. qa initial form			qa	qa	INF	
			1	(glyph)	mls. qa medial form			qa	qa	MEF	109
			2	(glyph)	mls. qa feminine isolate form			qa	qa	ISF	110
102	(glyph)	MLS. PA		(glyph)	mls. pa initial form			pa	pa	INF	
			102	(glyph)	mls. pa medial form			pa	pa	MEF	
103	(glyph)	MLS. SHA		(glyph)	mls. sha initial form			sha	sha	INF	
			1	(glyph)	mls. sha medial form			sha	sha	MEF	111
			2	(glyph)	mls. sha final form				sha	FIF	112
104	(glyph)	MLS. TA		(glyph)	mls. ta first initial form			ta	ta	INF	
			050	(glyph)	mls. ta second initial form			ta	ta	INF RVS1	
			051	(glyph)	mls. ta first medial form			ta	ta	MEF RVS1	
			1	(glyph)	mls. ta second medial form			ta	ta	MEF	113
			051 – 1	(glyph)	mls. ta third medial form			ta	ta	MEF RVS2	
			051 – 2	(glyph)	mls. ta final form			ta	ta	FIF	
105	(glyph)	MLS. DA		(glyph)	mls. da first initial form			da	da	INF	
			1	(glyph)	mls. da second initial form			da	da	INF RVS1	114
			2	(glyph)	mls. da first medial form			da	da	MEF RVS1	115
			3	(glyph)	mls. da second medial form			da	da	MEF	116

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
106	ᄾ	MLS. JA	053		mls. ja initial form			ja		INF	
				ᄾ	mls. ja medial form			ja		MEF	
107	ᄿ	MLS. FA		ᄿ	mls. fa initial form			fa		INF	
			118		mls. fa medial form			fa		MEF	
108		MLS. GAA						gaa	gaa		
109		MLS. HAA						haa	haa		
110		MLS. TSA			mls. tsa initial form			tsa	tsa	INF	
			1		mls. tsa medial form			tsa	tsa	MEF	117
111		MLS. ZA			mls. za first initial form			za	za	INF	
			1		mls. za second initial form			za	za	INF FVSI	118
			2		mls. za first medial form			za	za	MEF	119
			3		mls. za second medial form			za	za	MEF FVSI	120
112		MLS. RAA						ra	ra		
113		MLS. CHA			mls. cha initial form			cha	cha	INF	
			1		mls. cha medial form			cha	cha	MEF	121
			119		mls. zha initial form			zha		INF	
114		MLS. ZHA			mls. zha medial form			zha		MEF	

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PRESENTATION

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
			034		mlm. i isolate form				i	ISF	
			034–1		mlm. i initial form				i	INF	
			053		mlm. i first medial form				i	MEF	
			094		mlm. i second medial form				i	MEF FVS1	
115	ꡜ	MLM. I			mlm. i third medial form	/			i	MEF FVS2	
			094–1		mlm. i fourth medial form				i	MEF FVS3	
			034–2		mlm. i first final form				i	FIF	
			094–2		mlm. i second final form				i	FIF FVS1	
			094–3		mlm. i third final form				i	FIF FVS2	
			044		mlm. ka masculine initial form				ka	INF	
			032–4		mlm. ka masculine first medial form				ka	MEF	
			045–1		mlm. ka masculine second medial form				ka	MEF FVS1	
116	ꡙ	MLM. KA	137		mlm. ka masculine final form				ka	FIF	
			045–3		mlm. ka feminine isolate form				ka	ISF	
					mlm. ka feminine medial form				ka	MEF FVS2	
			1		mlm. ka feminine medial form, with dots				ka	MEF FVS1	122
			2		mlm. ka feminine final form				ka	FIF FVS1	123
			3		mlm. ka feminine final form with dots				ka	FIF FVS2	124

① MLM. = MONGOLIAN LETTER MANCHU

No	BASIC CHARACTERS CHARACTERS	NAME	PRESENTATION FORMS No	GLYPH	NAME	UNIFICATION TABLE M	T	S	MA	PRESENTATION RULE	TOTAL NO
			055		mlm. ra initial form				ra	INF	
			055		mlm. ra medial form				ra	MEF	
117		MLM. RA			mlm. ra final form				ra	FIF	
			107		mlm. fa first initial form				fa	INF	
			056		mlm. fa second initial form				fa	INF IVSI	
118		MLM. FA			mlm. fa first medial form				fa	MEF	
			056		mlm. fa second medial form				fa	MEF IVSI	
119		MLM. ZHA			mlm. zha initial form				zha	INF	
			1		mlm. zha medial form				zha	MEF	125
128		MLA.① ANUSVARA ONE			mla. anusvara first form	an			an		
			1		mla. anusvara second form		an			IVSI	126
129		MLA. VISARGA ONE			mla. visarga first form	vi	vi		vi		
			1		mla. visarga second form	vi				IVSI	127
130		MLA. DAMARU				dm	dm		dm		
131		MLA. UBADAMA				ub	ub		ub		
132		MLA. INVERTED UBADAMA				iu	iu		iu		
133		MLA. BALUDA				bl	bl		bl		
134		MLA. THREE BALUDA				tb	tb		tb		

① MLA. = MONGOLIAN LETTER ALI – GALI

No	BASIC CHARACTERS CHARACTERS	NAME	No	PRESENTATION FORMS GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
135	ᡝ	MLA. A		ᡝ	mla. a first isolate form	a			a	ISF	
			1	ᡝ	mla. a second isolate form	a				ISF RVS	128
			2	ᡝ	mla. a final form	a			a	FIF	129
			3	�	mla. a final short form	a				FIF RVS	130
			4	᠋	mla. a final forward form	a	a			FIF RVS	131
			5	ᡝ	mla. a final form with sidu	a	a			FIF RVS	132
136	ᠺ	MLA. I		ᠺ	mla. i isolate form	-				ISF	
			1	ᠻ	mla. i first final form	-				FIF	133
		094-3			mla. i second final form					FIF RVS	
137	ᠴ	MLA. KA		ᠴ		ka	ga				
			1	ᠴ	mla. ka initial form	ka	ka			INF	134
138	ᠺ	MLA. NGA		ᠺ	mla. nga initial form	nga	nga			INF	
			1	ᠺ	mla. nga initial short form	nga	nga			INF RVS	135
			2	ᠺ	mla. nga medial form	nga	nga			MEF	136
			3	ᠺ	mla. nga medial short form	nga	nga			MEF RVS	137
139	ᠵ	MLA. CA		ᠵ	mla. ca initial form	ca	tsa			INF	
			1	ᠵ	mla. ca medial form	ca	tsa			MEF	138
140	ᠵ	MLA. TTA		ᠵ		tta	tta				
141	ᠷ	MLA. TTHA		ᠷ		ttha	ttha				

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BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
142	𑀅	MLA.DDA				dda	dda				
143		MLA.NNA				nna	nna		nna		
144		MLA.TA				ta					
145		MLA.DA				da					
146		MLA.PA				pa			pa		
147		MLA.PHA				pha					
148		MLA.SSA				ssa	ssa			INF	
			1		mla.ssa initial form	ssa	ssa			MEF	139
149		MLA.ZHA				zha					
150		MLA.ZA				za	za			INF	
			1		mla.za initial form	za	za			MEF	140
					mla.za medial form						
151		MLA.AH				ah	ah				
152		MLTA.TA ①					ta				
153		MLTA.ZHA					zha				
154		MLMA.② GHA	1		mlma.gha initial form					INF	141
					mlma.gha medial form				gha	MEF	
155		MLMA.NGA	1		mlma.nga initial form				nga	INF	142
					mlma.nga medial form				nga	MEF	

① MLTA = MONGOLIAN LETTER TODO ALI-GALI
② MLMA = MONGOLIAN LETTER MANCHU ALI-GALI

BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE				PRESENTATION	
No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
156.		MLMA. CA			mlma. ca initial form				ca	INF	
			1		mlma. ca medial form				ca	MEF	143
157.		MLMA. JHA			mlma. jha initial form				jha	INF	
			1		mlma. jha medial form				jha	MEF	144
158		MLMA. TTA			mlma. tta initial form				tta	INF	
			1		mlma. tta medial form				tta	MEF	145
159.		MLMA. DDHA			mlma. ddha initial form				ddha	INF	
			1		mlma. ddha medial form				ddha	MEF	146
160		MLMA. TA							ta		
161		MLMA. DHA			mlma. dha initial form				dha	INF	
			1		mlma. dha medial form				dha	MEF	147
162		MLMA. SSA			mlma. ssa initial form				ssa	INF	
			148 – 1		mlma. ssa medial form				ssa	MEF	
163		MLMA. CYA			mlma. cya initial form				cya	INF	
			1		mlma. cya medial form				cya	MEF	148
164		MLMA. ZHA			mlma. zha initial form				zha	INF	
			1		mlma. zha medial form				zha	MEF	149

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No	CHARACTERS	NAME	No	GLYPH	NAME	M	T	S	MA	RULE	TOTAL NO
		BASIC CHARACTERS			PRESENTATION FORMS			UNIFICATION TABLE			PRESENTATION
165	☿	MLMA. ZA		☿	mlma. za initial form				za	☿ INF	
			1	☿	mlma. za medial form				za	☿ MED	150
166	◀	MLA. HALF U		◀		hu				◀	
167	೪	MLTA. HALF YA		೪			hy			೪	
168	೫	MLMA. BHA		೫					bha	೫	
169	○	MLA. DAGAGULGA		○		dag				○	

《 Mongolian Ligature Set 》

Explanation of 《 Mongolian Ligature Set 》

(1) This set is compiled for the purpose to clarify Mongolian ligatures in Mongolian encoding.

(2) The table consists of seven columns, viz. , "Serial number", "Ligature graph", "Name", "Unification & recording rule for Mongolian ligature", "Unification & recording rule for Todo ligature", "Unification & recording rule for Sibe ligature" and "Unificafion & recording rule for Manchu ligature".

(3) In the column of Graphic Symbols of Ligatures are listed all ligatures required in Mongolian, Todo, Sibe and Manchu writing systems. They are arranged in the alphabetic order as indicated in "Mongolian Basic Character Set".

(4) In principle, graphes of ligatures in the table are named according to the naming method set forth in "Mongolian Character Encoding Conventions", the only thing we have to do being to replace "MONGOLIAN LETTER" with "MONGOLIAN LIGATURE (ML) ".

(5) In the table, all graphes of ligatures of the four languages are unified with their names being marked ; and rules for recording separate syllables unified acceptable among clients are indicated.

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MONGOLIAN LIGATURE SET

No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
1	ᠪ	MLI. BA		ba / be	ba / be		INF / INF	ba	ba	ba		INF	ba	ba	ba		INF	ba	ba	ba		INF
2	ᠪ	MLI. ISOLATE BA	ba / be			ba / be	ISF / ISF	ba			ba	ISF	ba			ba	ISF	ba			ba	ISF
3	ᠪ	MLI. BI		bi	bi		INF		bi			INF	bi	bi		bi	INF	bi	bi		bi	INF
4	ᠪ	MLI. ISOLATE BI	bi			bi	ISF	bi				ISF	bi			bi	ISF	bi			bi	ISF
5	ᠪ	MLI. BO		bo / bu	bo / bu	bo / bu / boe / bue	INF / INF / MEF / MEF	bo	bo	bo		INF / INF	bo	bo	bo		INF	bo	bo	bo		INF
6	ᠪ	MLI. ISOLATE BO	bo / bu			bo / bu / boe / bue	ISF / ISF / FIF / FIF	bo	bue	bue	bo / bue	ISF / ISF	bo			bo	ISF	bo	bu	bu	bu	ISF
7	ᠪ	MLI. BOE		boe / bue			INF / INF											bu	bu	bu	bu	INF
8	ᠪ	MLI. ISOLATE BOE	boe / bue			boe / bue	ISF / ISF															
9	ᠪ	MLI. BEE		bee	bee		INF															
10	ᠪ	MLI. ISOLATE BEE	bee			bee	ISF															

① MLI. = MONGOLIAN LIGATURE   ② ISO = ISOLATE   ③ INI = INITIAL   ④ MED = MEDIAL   ⑤ FIN = FINAL

No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
11	ᠹ	MLI.PA		pa pe	pa pe		ᠹᠵ ᠭ᠊ INF ISF															
12	ᠹ	MLI. ISOLATE PA	pa pe			pa pe	ᠹᠵ ᠭ᠊ ISF ISF															
13	ᠹ	MLI.PI	pi	pi	pi		ᠭ᠊ INF															
14	ᠹ	MLI. ISOLATE PI	pi			pi	ᠭ᠊ ISF															
15	ᠷ	MLI.PO		po pu poe pue	po pu poe pue		ᠲ ᠲ ᠲ ᠲ INF INF INF INF															
16	ᠷ	MLI. ISOLATE PO	po pu			po pu poe pue	ᠲ ᠲ ᠲ ᠲ ISF ISF FIF FIF															
17	ᠷ	MLI.POE		poe pue		/	ᠲ ᠲ INF INF															
18	ᠷ	MLI. ISOLATE POE	poe pue			poe pue	ᠲ ᠲ ISF ISF															
19	ᠷ	MLI.PEE	pee	pee	pee		ᠲ INF															
20	ᠷ	MLI. ISOLATE PEE				pee	ᠲ ISF															
21	ᠥ	MLI.GE		qe ge	qe ge		ᠭᠵ ᠭᠵ INF INF					ke	ke		ᠪ ᠪ INF		ke	ke		ᠪ ᠪ INF

No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
22	ꡔ	MLI. ISOLATE GE	qe ge			qe ge	ISF ISF						ke	ke	ke	ke	INF	ke			ke	ISF
23	ꡖ	MLI. GI	qi gi	qi gi	qi gi	qi gi	INF INF						ki	ki	ki	ki	INF	ki	ki	ki		INF
24	ꡗ	MLI. ISOLATE GI	qi gi			qi gi	ISF ISF						ki			ki	ISF	ki			ki	ISF
25	ꡘ	MLI. GOE		qoe que goe gue	qoe que goe gue		INF INF INF INF															
26	ꡙ	MLI. MEDIAL GUE			qoe que goe gue	qoe que goe gue	MEF MEF MEF MEF	gue	gue	gue gue	gue		kue	kue	kue kue	kue	INF	kue	kue	kue		INF
27	ꡚ	MLI. FINAL GOE				qoe que goe gue	FIF FIF FIF FIF	gue			gue	INF/ISF	kue	kue	kue	kue	ISF	kue	kue	kue		ISF
28	ꡛ	MLI. ISOLATE GOE	qoe que goe gue			qoe que goe gue	ISF ISF ISF ISF														kue	ISF
29	ꡜ	MLI. GEE	gee	gee	gee	gee	INF															
30	ꡝ	MLI. ISOLATE GEE	gee			gee	ISF															

No	graphic symbols of ligature	NAME	MONGOL					TODO					SIBE					MANCHU				
			ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE
31	ਨ	MLI. QE		qe	qe	.	⟨EVS1⟩ INF / ⟨EVS1⟩ ISF															
32	ਨ	MLI. ISOLATE QE	qe			qe	⟨EVS1⟩ INF															
33	ਨ	MLI. QI		qi	qi		⟨EVS1⟩ INF															
34	ਨ	MLI. ISOLATE QI	qi			qi	⟨EVS1⟩ ISF															
35	ਨ	MLI. QOE		qoe / que			⟨EVS1⟩ INF / ⟨EVS1⟩ INF															
36	ਨ	MLI. MEDIAL QOE			qoe / que		⟨EVS1⟩ MEF / ⟨EVS1⟩ MEF															
37	ਨ	MLI. FINAL QOE				qoe / que	⟨EVS1⟩ FIF / ⟨EVS1⟩ FIF															
38	ਨ	MLI. ISOLATE QOE	qoe / que			qoe / que	⟨EVS1⟩ ISF / ⟨EVS1⟩ ISF															
39	ਨ	MLI. QEE		qee	qee		⟨EVS1⟩ INF															
40	ਨ	MLI. ISOLATE QEE	qee			qee	⟨EVS1⟩ ISF															
41	ਨ	MLI. FA		fa	fa		INF															
42	ਨ	MLI. ISOLATE FA	fa / fe			fa / fe	ISF / ISF															
43	ਨ	MLI. FI		fi	fi		INF															
44	ਨ	MLI. ISOLATE FI	fi			fi	ISF															
45	ਨ	MLI. FO		fo	fo		INF															
46	ਨ	MLI. ISOLATE FO	fo / fu			fo / fu	ISF / ISF															

No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
47		MLI. FUE		fue	fue		INF															
48		MLI. ISOLATE FUE	foe			foe	ISF															
			fue			fue	ISF															
49		MLI. FEE		fee	fee		INF															
50		MLI. ISOLATE FEE	fee			fee	ISF															
51		MLI. KA	ka	ka	ka		INF															
52		MLI. ISOLATE KA	ke			ka	ISF															
						ke	ISF															
53		MLI. KI	ki	ki	ki	ki	INF															
54		MLI. ISOLATE KI	ki				ISF															
55		MLI. KO	ko	ko	ko		INF															
56		MLI. ISOLATE KO	ko			ko	ISF															
			ku			ku	ISF															
57		MLI. KUE		kue	kue	kue	INF															
58		MLI. ISOLATE KUE	koe			koe	ISF															
			kue			kue	ISF															
59		MLI. KEE	kee	kee	kee		INF															
60		MLI. ISOLATE KEE	kee			kee	ISF															
61		MLI. KHA	kha	kha	kha		INF															
62		MLI. ISOALTE KHA				kha	ISF															

No	graphic symbols of ligature	NAME	MONGOL ISO	MONGOL INI	MONGOL MED	MONGOL FIN	MONGOL RULE	TODO ISO	TODO INI	TODO MED	TODO FIN	TODO RULE	SIBE ISO	SIBE INI	SIBE MED	SIBE FIN	SIBE RULE	MANCHU ISO	MANCHU INI	MANCHU MED	MANCHU FIN	MANCHU RULE
63		MLI. KHI		khi	khi		INF															
64		MLI. ISOLATE KHI	khi			khi	ISF															
65		MLI. KHO		kho	kho		INF		que	que		INF										
66		MLI. ISOLATE KHO	kho / khu			kho / khu	ISF	que			que	ISF										
67		MLI. KHUE		khue	khue		INF															
68		MLI. ISOLATE KHUE	khoe / khue			khoe / khue	ISF															
69		MLI. KHEE		khee	khee		INF															
70		MLI. ISOLATE KHEE	khee			khee	ISF															
71		MLI. TODO BE						be	be	be	be	ISF										
72		MLI. TODO BI							bi	bi		INF										
73		MLI. TODO ISOLATE BI						bi			bi	ISF										
74		MLI. TODO BU							bu	bu		INF										
75		MLI. TODO ISOLATE BU						bu				ISF										
76		MLI. TODO BOE							boe	boe		INF										
77		MLI. TODO ISOLATE BOE						boe			boe	ISF										
78		MLI. TODO PA						pa	pa	pa		INF										
79		MLI. TODO ISOLATE PA						pa			pa	ISF										
80		MLI. TODO PE						pe	pe	pe	pe	ISF										
81		MLI. TODO PI							pi	pi		INF										

No	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
82	MLI. TODO ISOLATE PI						pi			pi		ISF										
83	MLI. TODO PO							po / pue	po / pue			INF										
84	MLI. TODO ISOLATE PO						po / pue			po / pue		ISF										
85	MLI. TODO PU							pu	pu / pu			INF										
86	MLI. TODO ISOLATE PU						pu			pu		ISF										
87	MLI. TODO POE							poe	poe			INF										
88	MLI. TODO ISOLATE POE						poe	poe		poe		ISF										
89	MLI. TODO QE						qe	qe	qe	qe		ISF										
90	MLI. TODO QI						qi	qi	qi			INF										
91	MLI. TODO ISOLATE QI									qi		ISF										
92	MLI. TODO QOE						qoe	qoe	qoe			INF										
93	MLI. TODO ISOLATE QOE									qoe		ISF										
94	MLI. TODO GE						ge	ge	ge	ge		INF										
95	MLI. TODO GI							gi	gi			ISF										
96	MLI. TODO ISOLATE GI						gi			gi		INF										
97	MLI. TODO GOE							goe	goe			ISF										
98	MLI. TODO ISOLATE GOE						goe			goe		INF										
99	MLI. TODO KA							ka	ka			ISF										
100	MLI. TODO ISOLATE KA						ka			ka		ISF										

No	graphic symbols of ligature	NAME	MONGOL					TODO					SIBE					MANCHU				
			ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE
101	ق	MLI. TODO KO							ko	ko	ko	INF										
102	ﻕ	MLI. TODO ISOLATE KO						ko			ko	ISF										
103	ﻕ	MLI. TODO KU						ku	ku	ku	ku	INF										
104	ﻕ	MLI. TODO ISOLATE KU						ku			ku	ISF										
105	ﻕ	MLI. TODO GAA							gaa	gaa	gaa	INF										
106	ﻕ	MLI. TODO ISOLATE GAA						gaa				ISF										
107	ﻕ	MLI. TODO GOO							goo	goo		INF										
108	ﻕ	MLI. TODO ISOLATE GOO						goo			goo	ISF										
109	ﻕ	MLI. TODO GUU							guu	guu	guu	INF										
110	ﻕ	MLI. TODO ISOLATE GUU						guu			guu	ISF										
111	ﻕ	MLI. SIBE GE												ge	ge		INF		ge	ge		INF
112	ﻕ	MLI. SIBE ISOLATE GE				/							ge			ge	ISF				ge	ISF
113	ﻕ	MLI. SIBE GI												gi	gi		INF		gi	gi		INF
114	ﻕ	MLI. SIBE ISOLATE GI											gi		gi	gi	ISF			gi	gi	ISF
115	ﻕ	MLI. SIBE GUE												gue	gue	gue	INF		gue	gue	gue	INF
116	ﻕ	MLI. SIBE ISOLATE GUE											gue			gue	ISF	gue			gue	ISF

No	graphic symbols of ligature	NAME	MONGOL					TODO					SIBE					MANCHU				
			ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE
117		MLI.SIBE QE												qe	qe	qe	INF		qe	qe		INF
118		MLI.SIBE ISOLATE QE											qe			qe	ISF	qe			qe	ISF
119		MLI.SIBE QI											qi	qi	qi	qi	INF		qi	qi		INF
120		MLI.SIBE ISOLATE QI											qi			qi	ISF	qi			qi	ISF
121		MLI.SIBE QUE												que	que	que	INF		que	que		INF
122		MLI.SIBE ISOLATE QUE											que			que	ISF	que			que	ISF
123		MLI.SIBE BE											be	be	be	be	INF	be	be	be	be	INF
124		MLI.SIBE ISOLATE BE															ISF					ISF
125		MLI.SIBE BUE												bue	bue	bue	INF	bue	bue	bue		INF
126		MLI.SIBE ISOLATE BUE											bue			bue	ISF	bue			bue	ISF
127		MLI.SIBE PA											pa	pa	pa	pa	INF	pa	pa	pa	pa	INF
128		MLI.SIBE ISOLATE PA											pa			pa	ISF	pa			pa	ISF
129		MLI.SIBE PE												pe	pe	pe	INF		pe	pe		INF
130		MLI.SIBE ISOLATE PE											pe			pe	ISF	pe			pe	ISF
131		MLI.SIBE PI											pi	pi	pi	pi	INF	pi	pi	pi		INF
132		MLI.SIBE ISOLATE PI											pi			pi	ISF	pi			pi	ISF
133		MLI.SIBE PO											po	po	po	po	INF	po	po	po	po	INF
134		MLI.SIBE ISOLATE PO											po			po	ISF	po			po	ISF
135		MLI.SIBE PUE												pue	pue	pue	INF		pue	pue	pue	INF
136		MLI.SIBE ISOLATE PUE											pue			pue	ISF	pue			pue	ISF

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No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
137		MLI.SIBE PU																	pu	pu		[INF]
138		MLI.SIBE ISOLATE PU																pu			pu	[ISF]
139		MLI.SIBE GAA												gaa	gaa	gaa	[INF]		gaa	gaa		[INF]
140		MLI.SIBE ISOLATE GAA											gaa				[ISF]	gaa			gaa	[ISF]
141		MLI.SIBE GOO												goo	goo	goo	[INF]		goo	goo		[INF]
142		MLI.SIBE ISOLATE GOO											goo				[ISF]	goo			goo	[ISF]
143		MLI.SIBE QAA												qaa	qaa	qaa	[INF]		qaa	qaa		[INF]
144		MLI.SIBE ISOLATE QAA											qaa				[ISF]	qaa			qaa	[ISF]
145		MLI.SIBE QOO												qoo	qoo	qoo	[INF]		qoo	qoo		[INF]
146		MLI.SIBE ISOLATE QOO											qoo				[ISF]	qoo			qoo	[ISF]
147		MLI.AG PA		pa	pa		[INF]												pa	pa		[INF]
148		MLI.AG ISOLATE PA	pa			pa	[ISF]											pa			pa	[ISF]
149		MLI.AG PE																	pe	pe		[INF]
150		MLI.AG ISOLATE PE					[ISF]											pe				[ISF]
151		MLI.AG PI		pi	pi		[INF]												pi	pi		[INF]
152		MLI.AG ISOLATE PI	pi			pi	[ISF]											pi			pi	[ISF]
153		MLI.AG PO		po	po		[INF]												po	po		[INF]
154		MLI.AG ISOLATE PO	po			po	[ISF]											po			po	[ISF]
155		MLI.AG PUE		pue	pue		[INF]												pue	pue		[INF]
156		MLI.AG ISOLATE PUE					[ISF]											pue				[ISF]
157		MLI.AG PUE		pue	pue		[INF]														pue	

No	graphic symbols of ligature	NAME	MONGOL ISO	INI	MED	FIN	RULE	TODO ISO	INI	MED	FIN	RULE	SIBE ISO	INI	MED	FIN	RULE	MANCHU ISO	INI	MED	FIN	RULE
158	ᡖ	MLI. AG ISOLATE PUE	pue			pue	ᡖ ᠌ ISF															
159	ᡑ	MLI. AG PEE		pee	pee		ᡑ ᠌ INF															
160	ᡒ	MLI. AG ISOLATE PEE	pee			pee	ᡒ ᠌ ISF															
161	ᡓ	MLI. TODO AG PE						pe	pe	pe	pe	ᡓ ᠌ ISF										
162	ᡔ	MLI. TODO AG PI							pi	pi		ᡔ ᠌ INF										
163	ᡕ	MLI. TODO AG ISOLATE PI						pi			pi	ᡕ ᠌ ISF										
164	ᡖ	MLI. TODO AG PU							pu	pu		ᡖ ᠌ INF										
165	ᡗ	MLI. TODO AG ISOLATE PU						pu			pu	ᡗ ᠌ ISF										
166	ᡘ	MLI. AG PHA		pha	pha		ᡘ ᠌ INF															
167	ᡙ	MLI. AG ISOLATE PHA	pha			pha	ᡙ ᠌ ISF															
168	ᡚ	MLI. AG PHI		phi	phi		ᡚ ᠌ INF															
169	ᡛ	MLI. AG ISOLATE PHI	phi			phi	ᡛ ᠌ ISF															
170	ᡜ	MLI. AG PHO		pho	pho		ᡜ ᠌ INF															
171	ᡝ	MLI. AG ISOLATE PHO	pho			pho	ᡝ ᠌ ISF															
172	ᡞ	MLI. AG PHUE		phue			ᡞ ᠌ INF															
173	ᡟ	MLI. AG ISOLATE PHUE	phue			phue	ᡟ ᠌ ISF															
174	ᡠ	MLI. AG PHEE		phee	phee		ᡠ ᠌ INF															
175	ᡡ	MLI. AG ISOLATE PHEE	phee			phee	ᡡ ᠌ ISF															
176	ᡢ	MLI. TODO AG KE						ke	ke	ke	ke	ᡢ ᠌ ISF										
177	ᡣ	MLI. TODO AG KI							ki	ki		ᡣ ᠌ INF										

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No	graphic symbols of ligature	NAME	MONGOL					TODO					SIBE					MANCHU				
			ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE	ISO	INI	MED	FIN	RULE
178		MLI.TODO AG ISOLATE KI						ki			ki	[ISF]										
179		MLI.TODO AG KU							ku	ku		[INF]										
180		MLI.TODO AG ISOLATE KU						ku			ku	[ISF]										
181		MLI.TODO AG KHU							khu	khu		[INF]										
182		MLI.TODO AG ISOLATE KHU						khu			khu	[ISF]										
183		MLI.TODO AG GU							gu	gu		[INF]										
184		MLI.TODO AG ISOLATE GU						gu			gu	[ISF]										
185		MLI.MANCHU AG BHA																		bha	bha		[INF]
186		MLI.MANCHU AG ISOLATE BHA																	bha			bha	[ISF]
187		MLI.MANCHU AG BHE																		bhe	bhe		[INF]
188		MLI.MANCHU AG ISOLATE BHE																	bhe			bhe	[ISF]
189		MLI.MANCHU AG BHI																		bhi	bhi		[INF]
190		MLI.MANCHU AG ISOLATE BHI																	bhi			bhi	[ISF]
191		MLI.MANCHU AG BHO																		bho	bho		[INF]
192		MLI.MANCHU AG ISOLATE BHO																	bho			bho	[ISF]
193		MLI.MANCHU AG BHUE																		bhue	bhue		[INF]
194		MLI.MANCHU AG ISOLATE BHUE																	bhue			bhue	[ISF]

Explanation of Peculiar Punctuation
Marks & Control Symbols in Mongolian

Some directions should be offered to users to Mongolian encoding system concerning the usage of the punctuation marks & control symbols peculiar to Mongolian, Todo, Sibe, or Manchu scripts.

1. ▭ — MONGOLIAN SPACE. In Mongolian, Todo, Sibe, and Manchu scripts, apart from the space for common use, a "Mongolian space" shoud be adopted. This is a non-breaking space. This "Mongolian space" is used before a separated suffix. The figure ▭ should be shown on the computer screen , but in printing it suffices to leave a space.

Examples of the usage of "Mongolian space"

suffix	way of input	suffix	way of input

MONGOLIAN:

TODO:

SIBE & MANCHU:

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؟	⬚ ᠊	ᠻ	⬚ ᠄᠊
᠊ᠤᠢ	⬚ ᠊ᠤᠢ	᠊ᠠ	⬚ ᠊᠊
᠊ᠢ	⬚ ᠊ᠤᠢ	᠊ᠤᠢ	⬚ ᠊ᠤᠢ ᠊᠊

2. ᠊ᠥ — MONGOLIAN BIRGA. It is used at the beginning of an article or a paragraph in Mongolian and Todo scripts.

3. ⁝ — MONGOLIAN ELLIPSIS. The ellipsis in Mongolian and Todo scripts is four dots.

4. ˉ — MONGOLIAN COMMA. Peculiar comma of the Mongolian script.

5. ⁼ — MONGOLIAN PERIOD. Peculiar period of the Mongolian script.

6. ·· — MONGOLIAN COLON. Colon of Mongolian and the other three scripts.

7. ᠁ — MONGOLIAN FOUR DOTS. It is used at the end of an article or paragraph in Mongolian and Todo scripts.

8. ?! —MONGOLIAN COMBINATORY SYMBOL .

9. ᠊ — MONGOLIAN TODO LINE-SHIFT HYPHEN. Peculiar line-shift hyphen in Todo writing. It is placed at the beginning of the shifted line.

10. ᠊ — MONGOLIAN SIBE SYLLABLE BOUNDARY MARKER.

11. ᠊ — MONGOLIAN MANCHU COMMA.

12. ᠊ — MONGOLIAN MANCHU PERIOD.

13. ᠊ — MONGOLIAN NIRUGU. It is used in Mongolian and Todo scripts and it is different from the hyphen-minus of common use. It must link up the upper and lower characters as one, its width should be the same as the spine of a word. The NIRUGU is used mainly to lengthen the characters. For example:

᠊ᠤᠢ	᠊ᠤᠢ	᠊ᠤᠢ	᠊ᠤᠢ (Normal characters)
᠊ᠤᠢ	᠊ᠤᠢ	᠊ᠤᠢ	᠊ᠤᠢ (Lengthened charac-

ters)

14. MVS — MONGOLIAN VOWEL SEPARATOR. The mongolian vowel separator is used to separate the vowel A/E at the end of a word and the consonant before them.

Examples   for   the   usage   of   MVS.

The form using MVS	Record	.	The form not using MVS	Record
᠊ᠵ	··· ? MVS ᠊ᠢ/᠊ᠢ		᠊ᠢ	?᠊ᠢ/᠊ᠢ
᠊ᠵ	··· ᠊ MVS ᠊ᠢ		᠊ᠢ	᠊᠊ᠢ
᠊ᠵ	··· ? MVS ᠊ᠢ		᠊ᠢ	᠊᠊ᠢ
᠊ᠵ	··· ᠊ MVS ᠊ᠢ/᠊ᠢ		᠊ᠢ	᠊᠊ᠢ/᠊ᠢ
᠊ᠵ	··· ᠊ MVS ᠊ᠢ/᠊ᠢ		᠊ᠢ	᠊᠊ᠢ/᠊ᠢ

ᠠᠠ   ... ᠊� [MVS] ᠠ/ᠠ   ᠠ   ᠊ᠠ/ᠠ

ᠠ   ...ᠠ [MVS] ᠠ   ᠠ   ᠠᠠ/ᠠ

ᠠ   ...ᠠ [MVS] ᠠ/ᠠ   ᠠ   ᠠᠠ/ᠠ

ᠠ   ...ᠠ [MVS] ᠠ/ᠠ   ᠠ   ᠠᠠ/ᠠ

ᠠ   ...ᠠ [MVS] ᠠ/ᠠ   ᠠ   ᠠᠠ/ᠠᠠ

15. [ISF] ——MONGOLIAN ISOLATED FORM. In arbitrary sequences, when the isolated forms of characters are written obligatorily and without any rules, [ISF] is used. It is used after basic characters. If there are several isolated forms of characters, the "free variation selector" is used according to the rules in Appendix I. The "free variation selector" is located after [ISF].

Examples for the usage of ISF.

The form using ISF	Record	The form not using ISF	Record
ᠠᠠ	ᠠ [ISF] ᠠ	ᠠᠠ	ᠠᠠ
ᠠᠠ	ᠠ [ISF] ᠠ	ᠠᠠ	ᠠᠠ

16. [INF] ——MONGOLIAN INITIAL FORM. In arbitrary sequences, when the initial forms of characters are written obligatorily and without any rules, [INF] is used. It is used after basic characters. If there are several initial forms of characters, the "free variation selector" is used according to the rules in Appendix I. The "free variation selector" is placed after [INF].

Examples for the usage of INF.

The form using INF	Record	The form not using INF	Record
ᠠ ᠠ	ᠠ [INF] ᠠ [MEF] ᠠ ᠠ	ᠠᠠ	ᠠ ᠠ ᠠ ᠠ
ᠠᠠ	ᠠ ᠠ [INF] ᠠ	ᠠᠠ	ᠠ ᠠ ᠠ
ᠠᠠ	ᠠ ᠠ ᠠ [INF]	ᠠᠠ	ᠠ ᠠ ᠠ

17. [MEF] ——MONGOLIAN MEDIAL FORM. In arbitrary sequences, when the medial forms of characters are written obligatorily and without any rules, [MEF] is used. It is used after basic characters. If there are several medial forms of characters, the "free variation selector" is used according to the rules in Appendix I. The "free variation selector" is placed after [MEF].

Examples for the usage of MEF.

The form using MEF	Record	The form not using MEF	Record
ᠠᠠ ᠠᠠ	ᠠ ᠠ ᠠ [MEF] ᠠ [MVS] ᠠ	ᠠᠠᠠ	ᠠ ᠠ ᠠ ᠠ [MVS] ᠠ
ᠠᠠ	ᠠ [MEF] ᠠ	ᠠᠠ	ᠠ ᠠ

ᡐᡆᡳᡝᠣ   ᡐᠣᡳ ᡝ [MEF]   ᡐᠣᡳᠣ   ᡐᠣᡳ ᡝ

18. [FIF] — —MONGOLIAN FINAL FORM. In arbitrary sequences, when the final forms of characters are written obligatorily and without any rules, [FIF] is used. It is used after basic characters. If there are several final forms of characters, the "free variation selector" is used according to the rules in Appendix I. The "free variation selector" is located after [FIF].

Examples   for   the   usage   of   MVS.

The form using MVS	Record	The form not using MVS	Record
᠊ᡕ	ᡝ ᡐ [INF] ᡝ [FIF]	᠊ᡕ	ᡝ ᡐ ᡝ
᠊ᡕ	ᡝ ᡐ [FIF] ᡝ	᠊ᡕ	ᡝ ᡐ ᡝ
᠊ᡕ	ᡝ [FIF] ᡐ ᡝ	᠊ᡕ	ᡝ ᡐ ᡝ

[ISF][INF][MEF] and [FIF] are position markers. The priority degree of these position markers are greater than any other rules except that for ligatures.

19. [FVS1] — MONGOLIAN FREE VARIATION SELECTOR ONE. Mongolian free variation selector one [FVS1], Mongolian free variation selector two [FVS2] and Mongolian free variation selector three [FVS3] are used to distinguish the different variants of the same letter appearing under the same condition .

Examples for the usage of the free variation selsctor

The Variants using the"selector"	Record	The Variants not using the "selector"	Record
ᡐ	ᡐ [FVS1]	ᡐ	ᡐ
ᡐ	··· ᡐ [FVS1]	ᡐ	··· ᡐ
ᡐᡝᡳᡝ(old form)	ᡐ [FVS1]···	ᡐᡝᡳᡝ	ᡐ ···
ᡐᡕᡆ	··· ᡐ [FVS1]	ᡐᡕᡝ (wrong spelling)	··· ᡐ
ᡐᡐᡕ(old form)	ᡝ [FVS1]···	ᡐᡐᡕ	ᡝ ···
ᡐᡐᡕ(old form)	···ᡝ [FVS1]···	ᡐᡐᡕ	··· ᡝ ···
ᡝᡐᡕ ᡝ(old form)	···ᡝ [FVS2][MVS] ᡐ ᡝᡐᡕᡝ	···ᡝ [MVS] ᡐ
ᡐᡝ	ᡐᡳᡐ [FVS1]	ᡐᡕ	ᡐᡳᡐ
ᡐᡕᡆᡐᡕᡐᡕ	··· ᡐᡳᡐ [FVS1] ···	ᡐᡕᡆᡐᡕᡐᡕ(wrong spelling)	··· ᡐᡳᡐ ···
ᡐᡕᡐ	··· ᡐᡳᡐ [FVS1]	ᡐᡝ	··· ᡐᡳᡐ
ᡐᡝᡝ ᡝ	··· ᡝ [FVS1] ···	ᡐᡝᡝ ᡝ(wrong spelling)	··· ᡝ ···
ᡐᡳᡐ	··· ᡝ [FVS1]	ᡐᡳᡐ	··· ᡝ

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ㄱ (old form)	··· ⊖ FVS1	ㄱ	··· ⊖
ㄱ (old form)	⋀ FVS2	ㄱ	⋀ ···
ㄱ (old form)	⋀ FVS1 ···	ㄱ	⋀ ···
ㄱ (old form)	··· ㄱ FVS1 ···	ㄱ	··· ㄱ ···
ㄱ	··· ⋀ FVS1	ㄱ	··· ⋀
ㄱ (old form)	··· ㄱ FVS1	ㄱ	··· ㄱ
ㄱ	··· ⋀ FVS1 ···	ㄱ (wrong spelling)	··· ⋀ ···
ㄱ	ⴓ FVS1 ···	ㄱ	ⴓ ···
ㄱ	··· ⴓ FVS1 ···	ㄱ (wrong spelling)	··· ⴓ ···
ㄱ	··· ⴓ FVS1	ㄱ (wrong spelling)	··· ⴓ
ㄱ (old form)	ㄱ FVS1 ···	ㄱ	ㄱ ···
ㄱ	··· ㄱ FVS1 ···	ㄱ	··· ㄱ ···

20. FVS2 — MONGOLIAN FREE VARIATION SELECTOR TWO.
21. FVS3 — MONGOLIAN FREE VARIATION SELECTOR THREE.

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