

MNTTEX  
Tools for Typesetting the  
**SECRET HISTORY OF THE MONGOLS**

Version 0.3

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## **Abstract**

The MNTT<sub>E</sub>X package assists the scholar typesetting the complex Chinese material of The Secret History of the Mongols (*Mongγol-un niγuca tobciyan*) by accessing all characters either by number or pronunciation as well as offering convenient access to small and combined characters.

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# Chapter 1

## Documentation

### 1.1 Introduction

The Secret History of the Mongols (*Mongγol-un niγuca tobciyan* — hence the abbreviation MNT) is the oldest work of Mongolian literature surviving today. Though the language of the text is Middle Mongolian, the text was written entirely in Chinese characters which were used to render Mongolian phonetically.

The complete reconstruction of the underlying Middle Mongolian text has been a scholarly endeavour which mainly took place in the late 19th and early 20th centuries while research on particular issues of the text, its language and lexicon, is widely continued today.

Modern tools for typing, editing and typesetting Chinese do not easily lend themselves for preparing research documentation due to two peculiarities of the historical source:

- Despite the limited set of characters used in the Secret History (only about 520 characters), a considerable number of characters occurs virtually only in this text and was never coded in internationally used CJK character sets;
- Special, small characters are used to modify the pronunciation of the main character to which they are attached. Some scholars consider these pairs of main character and small modifying character as inseparable entities. However, due to the limited number of modifying characters and their uniform use, they are also frequently regarded as diacritics.

The MNTTEX package assists the scholar typesetting the complex Chinese material by accessing all characters either by number or pronunciation as well as offering convenient access to small or combined characters.

## 1.2 Technical requirements

The MnTTEX package relies on an existing environment for processing Chinese characters and assumes that the package CJK is installed<sup>1</sup>, since, technically speaking, MnTTEX is little more than a wrapper around the CJK package. Furthermore it is required to use the font `zysong.ttf` or a similar font in Song style. Since not all characters used in the MNT are provided by modern fonts they had to be made for this package. Being closely modelled according to Song style, these especially made characters would stand out in stark contrast from e.g. Kaiti style character sets. Limited in number, these individual characters were coded as scalable vector images, rather than as font. No difference between these characters and ordinary characters can be perceived in print even though the on-screen display may appear less than intelligible.

If these made-up characters appear uniformly in a different size in comparison to the other Chinese characters, their size can be adjusted by changing the value of `\psscalebase` in the preamble of the document.

## 1.3 How to use the MnTTEX package

MNT Text material must always be enclosed in a `mnt` environment (as in the figure on page 3; for long texts) or `\textmnt` capsule (for short texts; see examples further down) no matter which input method, by syllable or by number, is chosen. Inside the `mnt` environment or the `\textmnt` capsule MNT characters and ordinary letters can be mixed freely.

```
\begin{mnt}
...
...
...
...
...
\end{mnt}
```

Figure 1.1: The `mnt` environment is useful for big portions of text.

MNT material can be expressed in a number of ways. The basic models are input by pronunciation and input by number. The most important difference between the two input methods is the usage. Input by pronunciation will always and exclusively return single Chinese characters while

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<sup>1</sup>The CJK package is available at [ctan:language/chinese](http://ctan.org/tex-archive/language/chinese)

the input by number generates a character which may only be ‘complete’ if accompanied by its potential diacritic.

### 1.3.1 Input by pronunciation

The input by pronunciation model takes a pronunciation and returns a character with that pronunciation. The pronunciation takes, for convenience, the modern Hanyu Pinyin system as its base.

The command is in the form of `\<syllable>` or `\<syllable><selector>`, where `syllable` stands for the desired syllable, and `selector` selects the desired character among all syllables with the same pronunciation. See section 2.3 below for a reference of all characters available under each pronunciation.

成吉思罕  
*cinggis xan*

```
\textmnt{\cheng1\ji1\si\han1}\\\textit{cinggis xan}
```

It can be seen from the example that not all pronounciations point to more than one character. If a syllable like `\si` is erroneously followed by digit, a spurious digit will then appear in the text, as in `\si1` which results in 思1. If the syllable requires a selector and the selector is missing, the following error message will appear:

`! Missing number, treated as zero.`

If there is a selector digit but it is out of range, like in `cheng4`, the following error message will appear:

`! LaTeX Error: Package MNT: Select between 1 and 3 for syllable cheng.`

### 1.3.2 Input by number

The input by number model takes a number as argument and returns the character with that number. There are at present two enumeration schemes available within MNTTEX, one by Sum’yaabaatar, one by Bayar.

#### Sum’yaabaatar’s numbering scheme

The basis of Sum’yaabaatar’s numbering scheme is the enumerated list of characters found in his edition of the MNT<sup>2</sup>. Sum’yaabaatar counts the characters in the order in which they appear for the first time in text and takes

<sup>2</sup>B. Sum’yaabaatar, ed.: *Mongol-un Niγuca Tobciyan. Üsgiiñ galig.* Ulsyn Xäwläliin Gazar, Ulaanbaatar 1990, p. 927–953

differences of pronunciation into account. It may thus be that a character has two or even three different positions in Sum‘yaabaatar’s arrangement. In the majority of these cases pronunciation is differentiated by a small modifier character acting as pronunciation marker and diacritic. Hence, the potential return value of a number in Sum‘yaabaatar’s system is not necessarily a canonical character but a combination of diacritic and character.

See section 2.4 below for a full list of all characters and combinations. The following example shows the title of the MNT in Chinese characters. It can be seen from the example that the small character 卜 is reduced to its consonant value. The brackets indicate that this character was inserted later; the high index number (161) indicates that this character has its first original appearance far later in the text.

忙豁侖紐察脫(卜)察安 <i>mongγol-un niγuca to(b)ciyan</i>	<pre>\textmnt{\sn{1}\sn{2}\sn{3}\sn{4}% \sn{5}\sn{6}(\sn{161})\sn{5}\sn{7}}\\ \textit{mong\g ol-un ni\g uca to(b)ciyan}</pre>
--	---

### Bayar’s numbering scheme

Bayar’s positioning scheme<sup>3</sup> is radically different from Sum‘yaabatar’s scheme as he arranges all syllables by pronunciation, following Chinese tradition by rhyme first, and by initial as secondary sort key. In further contrast to Sum‘yaabaatar, he does not recount a syllable if it appears in a different context.

See section 2.5 below for a list of all characters. The following example shows the title of the MNT again, however since the character 紐 doesn’t appear in Bayar’s list it has to be added using, e. g., the pinyin input method.

忙豁侖紐察脫(卜)察安 <i>mongγol-un niγuca to(b)ciyan</i>	<pre>\textmnt{% \bn{446}\xooloi\bn{62}\bn{423}\niu% \bn{25}\bn{77}(\scriptsize\bn{181})% \bn{25}\bn{345}}\\ \textit{mong\g ol-un ni\g uca to(b)ciyan}</pre>
--	---

### 1.3.3 Input of special characters

A limited number of diacritical marks is used for indicating a modified pronunciation of the base character. These are \textmnt{\xooloi} producing

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<sup>3</sup>Bayar, ed.: *Monggol-un niγuca tobciyan*. Neimenggu Renmin Chubanshe, Huhehaote, Xincheng Xijie 82 hao, 1980, reprint 1998. ISBN: 7-204-02537-7/K.76.

a small *zhong* character:  $\text{\textdagger}$  which is normally combined with characters the (*pinyin*) initials of which are *h* or *k*, and  $\text{\texttt{\textbackslash textmmt\{\\xe1}}$  producing a small *she* character:  $\text{\textdagger}$  which is usually combined with characters the (*pinyin*) initial of which is *l*.

Other small characters appearing in the text can be produced with the  $\text{\texttt{\textbackslash scriptsize ...}}$  command, like  $\text{\texttt{\textbackslash blackcirc}}$ . It is however always possible to use Sum'yaabaatar's numbering system for producing combinations of special characters and main characters.

### 1.3.4 Typesetting complete words

It is also possible to typeset complete words appearing in the MNT using the command  $\text{\texttt{\textbackslash mntword\{<characters>\}\{<gloss>\}\{<transliteration>\}}}$ . Here, *<characters>* are the MNT characters to be displayed, *<gloss>* is the Chinese gloss found in smaller characters under the word proper, and *<transliteration>* is the scholarly interpretation of the pronunciation.

Depending on the Chinese encoding used for the gloss, the encoding must be announced once in the document with the command  $\text{\texttt{\textbackslash glossencoding\{<encoding>\}}}$ . *<encoding>* must be an encoding known to CJK. In the following example the UTF8 encoding is assumed<sup>4</sup>.

<i>temujin</i>	$\text{\texttt{\textbackslash glossencoding\{UTF8\}}}$
帖木真	$\text{\texttt{\textbackslash mntword\{\text{\\tie1\\mu2\\zhen}\}}$
人名	$\text{\texttt{\textbackslash UC\{78\}\{186\}\\UC\{84\}\{13\}\}}$

$\text{\texttt{\textbackslash temujin}}$

It ist possible to define one's own range of frequently used words which can be invoked conveniently.

We write about Temujin, rendered as 帖木真 .

```
\newcommand{\temujin}{%
\mntword{\text{\\tie1\\mu2\\zhen}}
{\text{\texttt{\textbackslash UC\{78\}\{186\}\\UC\{84\}\{13\}}}
{\temujin}}
```

We write about Temujin, rendered as  $\text{\texttt{\textbackslash temujin}}$ .

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<sup>4</sup>Nonetheless, in the example the characters of the gloss (人名 — *renming*) were not entered in native characters, which would have been perfectly possible but were entered as  $\text{\texttt{\textbackslash UC\{78\}\{186\}\\UC\{84\}\{13\}}}$ , in order to keep this document as portable as possible with regard to any encoding.

## **1.4 Desiderata**

Several scholars have presented different lists of Chinese characters used in recording the MNT, and it is planned to integrate these numbering and pronunciation tables into this software at the next opportunity. This includes also characters from various editions of the MNT.

Other problems remain, for which the author takes sole and full responsibility. Users of this software package are kindly requested to report any problems to the author at [oliver.corff@email.de](mailto:oliver.corff@email.de).

# Chapter 2

## Tables

### 2.1 Scope of Chinese Characters

There is no single authoritative text of the MNT from which a unique and complete list of Chinese characters could be compiled. Different editors of the MNT have different opinions on which characters should be included in lists, and which characters are merely considered variants. Differences between character sets of various editors sometimes are only differences of shape while essentially the same character is intended, but sometimes individual characters are unique to one list. The most notable example is the character 紐 which is not listed by Bayar. These are the characters individual to the authors:

Bayar 倏 哈 奈 抹 有 楊 橋 沉 沙 涅 樓 籃 翼 莊 蘭 鐵 閑 離

Sum‘yaabaatar 儒 敝 株 水 沈 沖 洩 涅 煤 瞩 答 紐 纓 缺 裝

The Radical and Pinyin indices below give access to *all* characters be the authors, including material like 涅 vs. 涩, or 沈 vs. 沉, and including characters which are merely considered form variants kept in the same position, like 扯 vs. 撥, both listed as Nr. 47 by Bayar.

### 2.2 Radical Index

The radical index shows all Chinese characters of the MNT, sorted in traditional manner by Kangxi radical. Each character entry is followed by the command sequence for pinyin input consisting of the command and the optional selector. The numbers in *italics* refer to:

- the appearance of the character in Sum'yaabaatar's list; the command `\sn<..>` with the number inserted will either result in the character or a combination of diacritics and this character.
- the position of the character in Bayar's list if this character is not found in Sum'yaabaatar's list: In this case, the number is preceded by a *B*; the command `\bn<..>` with this number inserted will produce this character.

一	二	八	𠂇
丁 \ding 464 三 \san1 143 不 \bu1 052, 487 丞 \cheng3 395	亦 \yi1 036 京 \jing 394	𠂇 \ba4 188 公 \gong 536 兼 \jian2 480	勒 \le1 040, 552 務 \wu7 545 勤 \qin1 122
人	𠂇	𠂇	𠂇
中 \zhong3 534	令 \ling2 403 伯 \bai1 080 估 \gu4 376 余 \yuu1 128 你 \ni1 075, 328 來 \lai 098, 256 侖 \lun1 003, 164 保 \bao2 273 倏 \shu3 B:214 俺 \an3 237 倉 \cang 567 倒 \dao1 190 備 \bei2 123 僧 \seng 417 儻 \chou2 329 儻 \tang2 491	𠂇 \zhong2 507 𠂇 \zhong2 507 𠂇 \zhun2 459 𠂇 \chu1 078	𠂇 \shao 160
、	𠂇	𠂇	𠂇
丹 \dan 298 主 \zhu1 034	𠂇	𠂇	𠂇
乃 \nai1 238	𠂇	𠂇	𠂇
乙	𠂇	𠂇	𠂇
乞 \qi 181, 563 也 \ye1 074	𠂇	𠂇	𠂇
二	𠂇	𠂇	𠂇
云 \yun 527	𠂇	𠂇	𠂇

厂	圖 \tu2 142 團 \tuan2 279	嫩 \nen 057	崑 \kun7 B:432
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口	土	子 \zi 245 孔 \kong 340 李 \bei1 030 孩 \hai1 146, 197	川 \chuan 483 州 \zhou2 530
古 \gu2 125 只 \zhi1 041 可 \ke3 062 台 \tai1 120 叱 \chi4 469 吃 \chi3 462 合 \he1 011, 054, 073 吉 \ji1 009 含 \han2 189, 336 周 \zhou1 044 咊 \tie3 517 咥 \die2 198 哂 \shen1 144 哇 \wa4 557 哥 \ge4 321 哈 \ha B:027 哲 \zhe3 373 唉 \ai2 489 唐 \tang1 348 唵 \an4 347 啜 \chai 306 喬 \chi5 B:131 喃 \nan3 511 喜 \xi3 457 嗔 \tian4 513 鳴 \wu2 116 嘯 \xiao 429	孫 \sun1 137 孱 \can 378	已	
	夊	守 \shou 547 安 \an1 007 完 \wan 121 官 \guan2 539 宜 \yi3 114 客 \ke2 043 宣 \xuan2 531 室 \shi8 450 寅 \yin3 310 察 \cha 005 實 \shi9 488 寬 \kuan2 542	巴 \ba2 060
口	夕	多 \duo2 191	巾
因 \yin1 064 國 \guo2 506	大	太 \tai3 244 夫 \fu3 549 失 \shi1 159, 421 奈 \nai3 B:246 奄 \yan4 404 奔 \ben 096 奧 \ao 520	希 \xi2 380 帖 \tie1 031
	寸	對 \dui2 433	干
	屯	屯 \tun 204	干 \gan1 067, 521
	女	山	年 \nian1 129
		峩 \wu5 370 巒 \er2 053 崑 \kun4 369	广
			府 \fu2 532 康 \kang1 246, 463
			廉 \lian3 294 廛 \chan5 412
			支
			延 \yan2 106
			升
			弇 \yan5 569

<b>弓</b>	把 \ba3 175 折 \zhe2 296 抹 \m6 B:070 抽 \chou1 162 拖 \tuo2 368 拙 \zhuo1 248 招 \zhao2 399 拜 \bai4 468 拭 \shi2 183 挑 \tiao 184 捋 \luo3 111, 132 捏 \nie1 051, 126 捕 \bu4 249 捫 \men2 503 掃 \sao 364 掌 \zhang 385 探 \tan3 566 推 \tui 498 揚 \yang1 445 搗 \dao3 B:281 損 \sun2 456 搠 \shuo 278 擣 \che3 B:047 尋 \xun1 076 撒 \sa 071 燃 \nian3 446 撫 \fu1 529 擣 \dao2 260 擺 \bai3 326 攬 \chan2 258	敦 \dun1 055 整 \zheng1 441	朶 \duo1 095 朵 \duo3 B:075 杭 \hang 416 東 \dong2 535 杷 \ba5 224 松 \song 476 林 \lin3 225, 247 果 \guo1 430 枯 \ku2 309 株 \mo4 263 柰 \nai2 386 格 \ge1 022 桑 \sang 324 桓 \huan1 201 梅 \mei 176 梭 \suo4 443 棍 \gun 414 楊 \yang4 B:471 榻 \ta3 358 槐 \huai 157 模 \mo1 212 櫓 \tao2 B:283 欒 \luan 228, 262
<b>彑</b>	幹 \wo1 046	<b>斤</b>	斤 \jin 222
影 \ying1 455		<b>方</b>	旋 \xuan1 265
<b>彳</b>		<b>日</b>	
征 \zheng2 528 循 \xun2 317 德 \de2 272 徹 \che2 270	捏 \nie1 051, 126 捕 \bu4 249 捫 \men2 503 掃 \sao 364 掌 \zhang 385 探 \tan3 566 推 \tui 498 揚 \yang1 445 搗 \dao3 B:281 損 \sun2 456 搠 \shuo 278 擣 \che3 B:047 尋 \xun1 076 撒 \sa 071 燃 \nian3 446 撫 \fu1 529 擣 \dao2 260 擺 \bai3 326 攬 \chan2 258	昂 \ang 242 昆 \kun1 199 昌 \chang2 419 昏 \hun2 533 昔 \xi1 289 晃 \huang2 241, 282 暑 \shu1 381	
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必 \bi1 084 忙 \mang1 001 忝 \tian1 185 忽 \hu 014, 099 怛 \da2 305 怜 \lian4 363 思 \si 010, 377 恢 \hui1 170 惕 \ti 090 想 \xiang1 236 慷 \kang2 565		曲 \qu 088	
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戈 \ge2 139 成 \cheng1 008		月 \yue2 490 有 \you2 B:308	
<b>手, 扌</b>		<b>木</b>	
打 \da7 461 扯 \che1 024 抄 \chao2 235	敏 \min2 454 敝 \bi3 372 敞 \chang3 519 敢 \gan2 350 散 \san2 266	木 \mu2 150, 302 札 \zha 015	
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<b>灝</b>	灰 \hui2 195 烈 \lie3 438 熯 \shu2 425 爐 \lu5 301	<b>田</b>	田 \tian3 316 由 \you1 124 申 \shen2 233 畏 \wei4 422 留 \liu 546 畢 \bi2 151 當 \dang 165	<b>石</b>	石 \shi4 275 硯 \wu6 478 砍 \kan2 206 礪 \zhi3 453
<b>爪</b>	爲 \wei1 131			<b>示, 示</b>	祿 \lu4 154 禪 \chan1 239

<b>肉</b>	<b>糸</b>	<b>老</b>	<b>艸</b>
禹 \yuu2 243	約 \yue1 149 紉 \ren 172 納 \na3 056 紐 \niu 004 純 \chun 375 索 \suo2 292 給 \dai2 388 經 \die3 361 統 \tong1 107 綽 \chao4 327 綿 \mian 349 纏 \chan4 371	老 \lao2 286 者 \zhe1 115	花 \hua 268, 365 苟 \gou2 481 荅 \da1 085 荒 \huang1 205 莊 \zhuang2 B:473 莎 \sha1 284 莫 \mo3 230 莽 \mang2 097 葛 \ge5 341 董 \dong1 332 蒙 \meng 169 薛 \xue1 127 藍 \lan2 155, 382 蘭 \lan4 B:322
<b>禾</b>		<b>耒</b>	
禿 \tu1 027 秣 \mo2 213 種 \zhong1 374 稱 \cheng2 367 穩 \wen2 281		耙 \ba6 B:004 耨 \nou 113	
<b>穴</b>		<b>耳</b>	
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<b>立</b>	<b>缶</b>	<b>肉</b>	<b>虎</b>
站 \zhan1 068 端 \duan 168	缺 \que 447	能 \neng 319 脫 \tuo1 006	虔 \qian3 570
<b>竹</b>	<b>网</b>	<b>臣</b>	<b>虫</b>
竹 \zhu3 337 答 \da5 420 筵 \yan3 397 管 \guan1 383, 502 篩 \shai 562 篾 \mie 066 籃 \lan3 B:320 籠 \Long1 435, 467, 494	罕 \han1 012, 109 罷 \ba1 045 羅 \luo1 069, 196	臣 \chen1 082	蛙 \wa1 094 蠻 \mang3 303 螭 \xi4 484 蠻 \man 215
	<b>羊</b>	<b>臼</b>	
	羊 \yang3 558 羣 \nie2 360 瓣 \li7 451	興 \xing 504	
<b>米</b>	<b>羽</b>	<b>舟</b>	<b>衣</b>
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		<b>艮</b>	
		良 \liang2 514	

<b>西</b>	<b>走</b>	<b>邑, 彳</b>	<b>阜, 彳</b>
西 \xi5 544	超 \chao1 178 趙 \zhao3 538 趨 \yi4 291, 439	那 \na2 033 邦 \bang 479 郎 \lang 145, 264, 314 都 \du1 093 鄰 \lin1 211, 223, 458	阿 \A 026 除 \chu2 187 陳 \chen3 307 陽 \yang2 486
<b>見</b>	<b>足</b>	<b>采</b>	<b>隹</b>
覩 \du2 299	跌 \die4 405 路 \lu7 477 蹠 \da6 428 躉 \chan6 537	釋 \shi3 252	離 \li8 470 難 \nan1 047
<b>言</b>	<b>車</b>	<b>里</b>	<b>雨</b>
討 \tao1 274 訥 \na1 013 許 \xu 208 訶 \he2 216 詰 \gu1 117 該 \gai 035 詹 \zhan3 295 誠 \cheng4 523 諄 \zhun1 193 談 \tan2 387 論 \lun2 118 諸 \zhu2 331 識 \shi5 362	輕 \qing 345 輶 \chuo 158 輪 \lun3 449	里 \li2 050, 072	雪 \xue2 177 零 \ling4 555, 561 雷 \lei 452, 482 靈 \ling3 495
<b>谷</b>	<b>辰</b>	<b>金</b>	<b>音</b>
豁 \huo1 002, 065	農 \nong 318	鈎 \gou1 293 鎖 \suoi 077 鑄 \pu1 200 鑽 \zhi4 496 鐵 \tie4 B:107	音 \yin4 525
<b>貝</b>	<b>辵</b>	<b>長</b>	<b>頁</b>
賓 \bin 402 賽 \sai1 390	迓 \yaa2 166 迪 \di 436 迭 \die1 018 迷 \mi2 259 途 \tu3 147 速 \su 083 連 \lian2 174, 209 遂 \sui 427 達 \da3 334 邊 \bian 152	長 \chang1 406	領 \ling1 234 額 \e1 019 顏 \yan1 081 顛 \dian2 564
<b>赤</b>	<b>門</b>	<b>闔</b>	<b>食</b>
赤 \chi1 032, 323 赫 \he3 312	門 \men1 134 閑 \wu8 B:230 闔 \wu4 276 闢 \kuo 133, 522 闌 \lan1 039, 130 闔 \tian2 277 闢 \guan3 541	闔 \guan3 541	食 \shi7 413

<b>馬</b>	<b>骨</b>	<b>鶲</b> \bi4 440 <b>鷄</b> \ku3 354	<b>點</b> \dian1 232 <b>黯</b> \an2 231
馬 \ma1 038	牒 \pu2 389		
驛 \bo 559			
騾 \lu1 089			
駔 \wen3 407			
驂 \ta2 091			
驃 \luo2 087			
騰 \teng 021			
驒 \lin2 214			
驥 \tie2 465			
驛 \yi2 086			
驩 \luo4 560			
驪 \li4 221			
	<b>魚</b>	<b>麻</b>	<b>鼠</b>
	魚 \yuu3 250	麻 \ma2 339	鼴 \ge6 B:054
	魯 \lu2 104, 110		鼬 \lu3 138
		<b>黍</b>	
		黎 \li3 108	<b>齋</b>
		黏 \nian4 B:357	齋 \zhai 384
	<b>鳥</b>	<b>黑</b>	<b>齒</b>
	鵠 \bao1 253		
	鵠 \lao1 202		
	鵠 \ke4 353		
	鵠 \kun3 356	黑 \hei 058	齧 \la3 444

## 2.3 Pinyin Index

Due to technical constraints (clashes with existing commands, either in the TeX base system or other packages), not all syllables are given in true *pinyin* spelling. The deviations are \A (instead of \a), \Long (instead of \long), \yaa (instead of \ya) and \yuu (instead of \yu).

\A: 阿	\bi<1..4>: 1必 2畢 3敝 4鶲	\chao<1..4>: 1超 2抄 3潮 4綽
\ai<1..2>: 1埃 2唉	\bian: 邊	\che<1..3>: 1扯 2徹 3摺
\an<1..4>: 1安 2黯 3俺 4唵	\bie: 別	\chen<1..4>: 1臣 2沈 3陳 4沉
\ang: 昂	\bin: 賓	\cheng<1..4>: 1成 2稱 3丞 4誠
\ao: 奥	\bo: 駢	\chi<1..5>: 1赤 2池 3吃 4叱 5喬
\ba<1..6>: 1罷 2巴 3把 4八 5杷 6耙	\bu<1..4>: 1不 2卜 3步 4捕	\chong<1..2>: 1充 2沖
\bai<1..4>: 1伯 2白 3擺 4拜	\can: 扈	\chou<1..2>: 1抽 2儻
\ban<1..2>: 1班 2般	\cang: 倉	\chu<1..2>: 1出 2除
\bang: 邦	\cha: 察	\chuan: 川
\bao<1..2>: 1鵠 2保	\chai: 啜	\chui: 垂
\bei<1..3>: 1字 2備 3北	\chan<1..6>: 1禪 2攬 3潺 4纏 5塵 6躉	\chun: 純
\ben: 奔	\chang<1..3>: 1長 2昌 3敞	

\chuo: 輟	\han<1..2>: 1罕 2含	\lei: 雷
\da<1..7>: 1荅 2怛 3達 4搭 5答 6蹠 7打	\hang: 杭	\li<1..8>: 1理 2里 3黎 4驪 5力 6澧 7灝 8離
\dai<1..2>: 1歹 2給	\hao: 好	\lian<1..4>: 1漣 2連 3廉 4怜
\dan: 丹	\he<1..4>: 1合 2訶 3赫 4河	\liang<1..2>: 1涼 2良
\dang: 當	\hei: 黑	\lie<1..4>: 1列 2劣 3烈 4冽
\dao<1..3>: 1倒 2擣 3搗	\hong: 洪	\lin<1..3>: 1鄰 2鱗 3林
\de<1..2>: 1的 2德	\hu: 忽	\ling<1..4>: 1領 2令 3靈 4零
\deng: 登	\hua: 花	\liu: 留
\di: 迪	\huai: 槐	\long<1..2>: 1籠 2耧
\dian<1..2>: 1點 2顛	\huan<1..3>: 1桓 2洹 3歡	\lu<1..7>: 1驥 2魯 3驢 4祿 5爐 6驢 7路
\die<1..5>: 1迭 2咥 3經 4跌 5姪	\huang<1..2>: 1荒 2晃	\luan: 樂
\ding: 丁	\hui<1..2>: 1恢 2灰	\lun<1..3>: 1侖 2論 3輪
\dong<1..2>: 1董 2東	\hun<1..2>: 1渾 2昏	\luo<1..4>: 1羅 2驃 3捋 4驃
\du<1..3>: 1都 2覩 3睹	\huo<1..2>: 1豁 2火	\ma<1..2>: 1馬 2麻
\duan: 端	\ji<1..2>: 1吉 2汲	\mai: 埋
\dui<1..2>: 1堆 2對	\jia: 加	\man: 蠻
\dun<1..2>: 1敦 2墩	\jian<1..2>: 1堅 2兼	\mang<1..3>: 1忙 2莽 3蠻
\duo<1..3>: 1朵 2多 3朵	\jin: 斤	\mao: 卯
\e<1..2>: 1額 2厄	\jing: 京	\mei: 梅
\er<1..3>: 1兒 2嶮 3渢	\kan<1..3>: 1刊 2砍 3坎	\men<1..2>: 1門 2𠀤
\fu<1..3>: 1撫 2府 3夫	\kang<1..2>: 1康 2慷	\meng: 蒙
\gai: 該	\ke<1..4>: 1克 2客 3可 4鵠	\mi<1..3>: 1米 2迷 3澗
\gan<1..3>: 1干 2敢 3甘	\kong: 孔	\mian: 繡
\ge<1..6>: 1格 2戈 3歌 4哥 5葛 6𦵹	\ku<1..3>: 1窟 2枯 3鶴	\mie: 瓔
\gong: 公	\kuan<1..2>: 1款 2寬	\min<1..2>: 1民 2敏
\gou<1..2>: 1鈎 2苟	\kuang: 匡	\mo<1..5>: 1模 2朖 3莫 4朖 5沫
\gu<1..4>: 1詰 2古 3沽 4估	\kun<1..8>: 1昆 2坤 3鶴 4崑 5𧆸 6琨 7崐 6禪	\mu<1..2>: 1沐 2木
\guan<1..3>: 1管 2官 3關	\kuo: 閻	\na<1..4>: 1訥 2那 3納 4衲
\gui<1..2>: 1癸 2歸	\la<1..3>: 1刺 2瞇 3靄	\nai<1..3>: 1乃 2柰 3奈
\gun: 棍	\lai: 來	
\guo<1..2>: 1果 2國	\lan<1..4>: 1闌 2藍 3籃 4蘭	
\ha: 哈	\lang: 郎	
\hai<1..2>: 1孩 2海	\lao<1..2>: 1鵠 2老	
	\le<1..3>: 1勒 2泐 3泐	

\nan<1..3>: 1難 2南 3喃	\shuai: 率	\weng: 翁
\nen: 嫩	\shui: 水	\wo<1..2>: 1幹 2漸
\neng: 能	\shun: 盾	\wu<1..8>: 1兀 2鳴 3悟 4闔 5帆 6砾 7務 8閥
\ni<1..2>: 1你 2泥	\shuo: 撥	\xi<1..5>: 1昔 2希 3喜 4螭 5西
\nian<1..4>: 1年 2粘 3燃 4黏	\si: 思	\xian: 先
\nie<1..4>: 1捏 2惺 3涅 4涅	\song: 松	\xiang<1..3>: 1想 2襄 3相
\niu: 紐	\su: 速	\xiao: 嘻
\nong: 農	\sui: 遂	\xie<1..3>: 1協 2泄 3洩
\nou: 舜	\sun<1..2>: 1孫 2損	\xin: 欣
\nu: 弩	\suo<1..4>: 1鎖 2索 3潰 4梭	\xing: 興
\pu<1..2>: 1鑄 2鑄	\ta<1..3>: 1塔 2鯢 3榻	\xu: 許
\qi: 乞	\tai<1..3>: 1台 2泰 3太	\xuan<1..2>: 1旋 2宣
\qian<1..3>: 1牽 2淺 3虔	\tan<1..3>: 1壇 2談 3探	\xue<1..2>: 1薛 2雪
\qin<1..3>: 1勤 2欽 3琴	\tang<1..3>: 1唐 2儻 3堂	\xun<1..2>: 1擣 2循
\qing: 輕	\tao<1..2>: 1討 2櫓	\yaa<1..2>: 1牙 2迓
\qu: 曲	\teng: 騰	\yan<1..5>: 1顏 2延 3筵 4奄 5弇
\que: 缺	\ti: 惕	\yang<1..4>: 1揚 2陽 3羊 4楊
\ren: 紗	\tian<1..5>: 1忝 2闖 3田 4噴 5添	\ye<1..2>: 1也 2耶
\sa: 撒	\tiao: 挑	\yi<1..6>: 1亦 2驛 3宜 4邇 5翊 6翼
\sai<1..2>: 1賽 2塞	\tie<1..4>: 1帖 2驥 3帖 4鐵	\yin<1..4>: 1因 2引 3寅 4音
\san<1..3>: 1三 2散 3穩	\tong<1..2>: 1統 2潼	\ying<1..2>: 1影 2媵
\sang: 桑	\tu<1..5>: 1禿 2圖 3途 4突 5土	\you<1..2>: 1由 2有
\sao: 掃	\tuan<1..2>: 1湍 2團	\yuu<1..3>: 1余 2禹 3魚
\seng: 僧	\tui: 推	\yue<1..2>: 1約 2月
\sha<1..2>: 1莎 2沙	\tun: 屯	\yun: 云
\shai: 篩	\tuo<1..2>: 1脫 2拖	\ze: 澤
\shao: 勺	\wa<1..4>: 1蛙 2瓦 3洼 4哇	\zha: 札
\shen<1..2>: 1哂 2申	\wan: 完	\zhai: 齋
\sheng: 升	\wang<1..2>: 1汪 2王	\zhan<1..5>: 1站 2楂 3詹 4瞻 5盍
\shi<1..9>: 1失 2拭 3釋 4石 5識 6濕 7食 8室 9實	\wei<1..4>: 1爲 2危 3委 4畏	\zhang: 掌
\shou: 守	\wen<1..3>: 1溫 2穩 3颶	
\shu<1..3>: 1暑 2煖 3條		

\zhaο<1..3>: 1沼 2招 3趙	\zhi<1..4>: 1只 2知 3磧 4鑽	3竹 4渚
\zhe<1..3>: 1者 2折 3哲	\zhong<1..3>: 1種 2冢 3中	\zhuang<1..2>: 1裝 2莊
\zhen: 真	\zhou<1..2>: 1周 2州	\zhun<1..2>: 1諄 2准
\zheng<1..2>: 1整 2征	\zhu<1..4>: 1主 2諸	\zhuo<1..2>: 1拙 2卓 \zi: 子

## 2.4 Character Enumeration by Sum‘yaabaatar

1 忙	32 赤	63 溫	94 蛙	125 古	156 壇
2 中豁	33 那	64 因豁	95 朶	126 捏	157 槐
3 倉	34 主	65 篓	96 奔	127 薛	158 輶
4 紐	35 該	66 箬	97 莽	128 余年	159 失
5 察	36 亦	67 干	98 來	129 蘭	160 勺
6 脫	37 埃	68 站	99 中忽	130 爰	161 卜
7 安	38 馬	69 舌羅	100 班	131 爾	162 抽
8 成	39 舌闡	70 中兀	101 刺	132 挿	163 米
9 吉	40 勒	71 撒	102 瞬	133 闊	164 舌倫
10 思	41 只	72 里	103 刊	134 門	165 當
11 合	42 汲	73 中合	104 魯	135 罷	166 迈
12 中罕	43 客	74 也	105 別	136 泥	167 步
13 訥	44 周	75 你	106 延	137 孫	168 端
14 忽	45 罷	76 搦鎖	107 統	138 驚	169 蒙
15 札	46 幹	77 出	108 黎	139 戈	170 恢
16 兀	47 難	真	109 中罕	140 舌劣	171 匡
17 兒	48 沐	伯	110 舌魯	141 卵	172 紉
18 迭	49 舌漣	顏	111 挿	142 圖	173 連
19 額	50 舌里	臣	112 堅	143 三	174 把
20 舌列	51 捏	速	113 纏	144 晒	175 梅
21 謄	52 不	必	114 宜	145 舌郎	176 雪
22 格	53 峙	苔	115 者	146 孩	177 雪
23 理	54 中合	驛	116 鳴	147 途	178 超
24 扯	55 敦	驛	117 詰	148 卜	179 突
25 牙	56 納	舌驛	118 舌論	149 約	180 升
26 阿	57 嫩	曲	119 中渾	150 木	181 乞
27 禿	58 黑	騾	120 台	151 畢	182 耶
28 克	59 刺	惕	121 完	152 邊	183 拭
29 先	60 巴	騶	122 勤	153 堆	184 挑
30 孝	61 塔	列	123 備	154 祿	185 添
31 帖	62 可	都	124 由	155 舌藍	186 水

187	除八	228	舌樂	269	渾徹翁德保討石閔闔擗團沈穩晃	310	寅瓦赫歹郎白田循農能知哥弩赤柔沽擺綽你儕澤諸董列	351	涼墩鵠中窟埋塔衲猩經識怜掃花潺稱拖崑帆纏敝哲種純估思辱厄希暑藍中管	392	裯襄京丞相筵琨招澧
188	含倒	229	中海	270	莫黯點申領抄想俺乃禪泰晃昂禹太子	311	312	352	353	393	394
189	多窟	230	莫黯點申領抄想俺乃禪泰晃昂禹太子	271	272	273	274	354	355	394	395
190	諄粘	231	莫黯點申領抄想俺乃禪泰晃昂禹太子	275	276	277	278	356	357	395	396
191	中灰	232	莫黯點申領抄想俺乃禪泰晃昂禹太子	279	280	281	282	358	359	396	397
192	羅	233	莫黯點申領抄想俺乃禪泰晃昂禹太子	283	284	285	286	360	361	397	398
193	中孩	234	莫黯點申領抄想俺乃禪泰晃昂禹太子	289	290	291	292	362	363	398	399
194	啞昆	235	莫黯點申領抄想俺乃禪泰晃昂禹太子	295	296	297	298	364	365	400	401
195	鑄鑛	236	莫黯點申領抄想俺乃禪泰晃昂禹太子	299	300	301	302	366	367	401	402
196	桓鵠	237	莫黯點申領抄想俺乃禪泰晃昂禹太子	305	306	307	308	368	369	402	403
197	土屯	238	莫黯點申領抄想俺乃禪泰晃昂禹太子	309	310	311	312	370	371	403	404
198	暉昆	239	莫黯點申領抄想俺乃禪泰晃昂禹太子	313	314	315	316	372	373	404	405
199	鑄鑛	240	莫黯點申領抄想俺乃禪泰晃昂禹太子	317	318	319	320	374	375	405	406
200	桓鵠	241	莫黯點申領抄想俺乃禪泰晃昂禹太子	321	322	323	324	376	377	406	407
201	土屯	242	莫黯點申領抄想俺乃禪泰晃昂禹太子	325	326	327	328	378	379	407	408
202	暉昆	243	莫黯點申領抄想俺乃禪泰晃昂禹太子	329	330	331	332	380	381	408	409
203	鑄鑛	244	莫黯點申領抄想俺乃禪泰晃昂禹太子	333	334	335	336	382	383	409	410
204	荒	245	莫黯點申領抄想俺乃禪泰晃昂禹太子	337	338	339	340	384	385	410	411
205	砍洪	246	中康	341	342	343	344	386	387	411	412
206	許連	247	林	345	346	347	348	388	389	412	413
207	舌連	248	拙	349	350	351	352	390	391	413	414
208	劣鄰	249	捕魚	353	354	355	356	392	393	414	415
209	舌鄰	250	滔	357	358	359	360	394	395	415	416
210	模秣	251	釋	361	362	363	364	396	397	416	417
211	舌驛	252	鵠	365	366	367	368	398	399	417	418
212	驛驛	253	好	369	370	371	372	400	401	418	419
213	蠻駒	254	南	373	374	375	376	402	403	419	420
214	舌駒	255	來	377	378	379	380	404	405	420	421
215	蠻駒	256	舌來	381	382	383	384	406	407	421	422
216	訶訶	257	民	385	386	387	388	408	409	422	423
217	訶訶	258	攬	389	390	391	392	410	411	423	424
218	訶訶	259	迷	393	394	395	396	412	413	424	425
219	危坤	260	擣	397	398	399	400	414	415	425	426
220	舌驛	261	委	401	402	403	404	416	417	426	427
221	斤鄰	262	樂	405	406	407	408	418	419	427	428
222	鄰	263	秣	409	410	411	412	420	421	429	430
223	杷林	264	郎	413	414	415	416	422	423	431	432
224	舌林	265	旋	417	418	419	420	424	425	432	433
225	舌林	266	散	421	422	423	424	430	431	433	434
226	引	267	湍	425	426	427	428	431	432	434	435
227	沼	268	中花	429	430	431	432	433	434	435	436

433	對	457	喜	481	苟	505	晤	529	撫	553	翊
434	漬	458	鄰	482	雷	506	國	530	州	554	加
435	籠	459	淮	483	川	507	豕	531	宣府	555	零
436	迪	460	登	484	嬉	508	率	532	昏	556	欣
437	泐	461	打	485	蓋	509	中翁	533	中東公	557	哇
438	烈	462	吃	486	陽	510	歡	534	躉	558	羊
439	趯	463	康	487	不實	511	喃	535	趙官	559	驛
440	羈	464	丁	488	唉	512	裝	536	潼關	560	馬羅
441	整	465	驥	489	月儻	513	噴	537	寬	561	舌零
442	塗	466	洩	490	火堂	514	良	538	河西	562	篩
443	梭	467	籠	491	籠	515	媵	539	務	563	乞
444	𦵹	468	拜	492	靈	516	坎	540	留	564	顛
445	揚	469	叱	493	鑽	517	咷	541	守	565	慷
446	撚	470	離	494	潤	518	琴	542	北夫	566	探
447	缺	471	瞻	495	澗	519	敞	543	塞	567	倉
448	般	472	充	496	鑽	520	奧	544	甘	568	淺
449	輪	473	中韁	497	澗	521	中干	545	勒	569	弇
450	室	474	渚	498	推盾	522	中闢	546	虞	570	虔
451	𦵹	475	漣	499	欽	523	誠	547	北	571	添
452	雷	476	松	500	沖	524	冽	548	夫		
453	礮	477	路	501	管	525	音	549	塞		
454	敏	478	砾	502	捫	526	沫	550	甘		
455	影	479	邦	503	興	527	云	551	勤		
456	損	480	兼	504		528	征	552			

## 2.5 Character List by Bayar

1	巴	14	榻	27	哈	40	勒	53	格	66	孛
2	八	15	驕	28	阿	41	泐	54	麟	67	驪
3	把	16	蹠	29	加	42	汨	55	可	68	騾
4	杷	17	那	30	中合	43	澤	56	克	69	梭
5	罷	18	納	31	牙	44	哲	57	鴟	70	莎
6	麻	19	衲	32	迓	45	折	58	客	71	鎖
7	馬	20	刺	33	花	46	者	59	訶	72	湧
8	荅	21	喇	34	蛙	47	扯	60	訶	73	索
9	褡	22	𦵹	35	洼	48	徹	61	河	74	拙
10	怛	23	撒	36	哇	49	歌	62	合	75	卓
11	達	24	札	37	瓦	50	哥	63	豁	76	綽
12	打	25	察	38	德	51	戈	64	赫	77	輶
13	塔	26	沙	39	訥	52	葛	65	額	78	啜

92	擲	133	叱	174	宣	215	沽	256	唉	297	挑	338	干
93	國	134	赤	175	翼	216	估	257	唉	298	嘯	339	敢
94	果	135	濕	176	翹	217	古	258	率	299	耨	340	刊
95	闊	136	失	177	翊	218	枯	259	槐	300	耨	341	坎
96	火	137	實	178	亦	219	窟	260	北	301	周	342	含
97	幹	138	食	179	驛	220	鷗	261	備	302	州	343	罕
98	澗	139	識	180	捕	221	忽	262	梅	303	抽	344	安
99	別	140	石	181	卜	222	鳴	263	黑	304	守	345	唵
100	篾	141	室	182	步	223	鴻	264	堆	305	鉤	346	俺
101	跌	142	拭	183	不	224	務	265	對	306	苟	347	黯
102	迭	143	釋	184	鑄	225	兀	266	推	307	留	348	邊
103	垤	144	兒	185	饌	226	屹	267	遂	308	由	349	綿
104	經	145	湔	186	木	227	硯	268	垂	309	有	350	顛
105	咥	146	峒	187	沐	228	閼	269	歸	310	班	351	點
106	帖	147	畢	188	夫	229	閔	270	癸	311	般	352	添
107	鐵	148	羈	189	府	230	曲	271	灰	312	蠻	353	田
108	驥	149	必	190	撫	231	許	272	恢	313	丹	354	鬱
109	咷	150	迷	191	都	232	魚	273	危	314	探	355	年
110	捏	151	米	192	覩	233	余	274	爲	315	談	356	撲
111	涅	152	湧	193	突	234	禹	275	委	316	壇	357	年
112	羨	153	的	194	禿	235	白	276	畏	317	喃	358	撲
113	列	154	迪	195	途	236	擺	277	保	318	難	359	年
114	冽	155	惕	196	圖	237	拜	278	鵠	319	藍	360	撲
115	烈	156	泥	197	土	238	埋	279	卯	320	籃	361	年
116	劣	157	你	198	弩	239	歹	280	擣	321	蘭	362	撲
117	協	158	黎	199	爐	240	給	281	倒	322	繆	363	年
118	泄	159	離	200	瞓	241	台	282	櫓	323	三	364	撲
119	耶	160	驪	201	臚	242	太	283	討	324	散	365	年
120	也	161	澧	202	魯	243	泰	284	老	325	詹	366	撲
121	薛	162	里	203	路	244	乃	285	鵠	326	瞻	367	年
122	雪	163	理	204	祿	245	奈	286	掃	327	氈	368	撲
123	約	164	力	205	驟	246	來	287	招	328	盞	369	年
124	月	165	纏	206	速	247	塞	288	沼	329	站	370	撲
125	子	166	汲	207	諸	248	賽	289	趙	330	攬	371	年
126	思	167	吉	208	竹	249	齋	290	抄	331	孱	372	撲
127	知	168	乞	209	渚	250	齋	291	超	332	潺	373	年
128	只	169	西	210	主	251	篩	292	潮	333	蹙	374	撲
129	鑽	170	希	211	出	252	該	293	勺	334	塵	375	年
130	礮	171	昔	212	除	253	孩	294	好	335	塵	376	撲
131	吃	172	喜	213	暑	254	海	295	奧	336	禪	377	年
132	池	173	蟻	214	倏	255		296		337	甘	378	撲

379	川	399	臣	419	墩	439	溫	459	敞	479	蒙	499	影
380	官	400	申	420	盾	440	驩	460	康	480	登	500	媵
381	關	401	晒	421	屯	441	穩	461	慷慨	481	騰	501	東董
382	管	402	紉	422	輪	442	擣	462	杭昂	482	能	502	潼統
383	寬	403	賓	423	倫	443	循	463	良涼	483	僧征	503	農籠
384	款	404	敏	424	論	444	云	464	相襄	484	整	504	松中
385	歡	405	敏	425	孫	445	邦	465	莽	485	稱	505	冢種
386	桓	406	林	426	損	446	忙	466	想	486	丞	506	充公
387	洹	407	鄰	427	諱	447	莽	467	羊陽	487	成誠	507	孔洪
388	完	408	麟	428	准	448	蟠	468	楊	488	升丁	508	翁
389	宣	409	斤	429	純	449	當	469	莊匡	489	靈令	509	
390	旋	410	欽	430	棍	450	唐	470	荒冕	490	零領	510	
391	奔	411	琴	431	昆	451	堂	471	汪王	491	京輕	511	
392	門	412	勤	432	崑	452	儻	472		492	興	512	
393	捫	413	欣	433	琨	453	郎	473		493		513	
394	嫩	414	音	434	棍	454	倉	474		494		514	
395	真	415	因	435	鶴	455	桑	475		495		515	
396	噴	416	寅	436	坤	456	掌	476		496		516	
397	沉	417	引	437	昏	457	昌	477		497			
398	陳	418	敦	438	渾	458	長	478		498			