ManjuTeX 0.2

A Manju Script Package for LaTeX 2ε

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Abstract

ManjuTeX is a package offering Manju support for TeX and LaTeX 2ε. This package is founded on MonTeX and will finally merge with MonTeX in order to provide all Mongolian writings. In contrast to the Mongolian Script of early MonTeX versions, the complete retransliteration process which generates Manju writing out of romanized input is built on the ligature functionality of TeX and Metafont, thus effectively eliminating the need for installing any external preprocessor.

Contents

1 Introduction

As long as a full-fledged support of all Mongolian-based languages and writing systems (Mongolian, Manju, Tod, Sibe as well as various transcription systems for Tibetan, Sanskrit and Chinese, also known as Galig or Ali Gali) is not available for the TEX and LATEX 2_ε community, the author considered it useful to prepare a stand-alone Manju package which can be used with TEX and LATEX 2_ε. The package comes in two varieties: while TEX users can access the Manju fonts, LATEX 2_ε users enjoy the additional privilege of being able to typeset vertical capsules of Manju text. Users of both communities never have to bother with encoding issues or external preprocessors. Manju is typed in a fairly standard romanization and is converted to the presentation form automatically.

2 Installation

Installation of this software package is straightforward: The installation procedure depends on the nature of the actual TEX system. The directory tree of e.g., teTeX is different from the emtex tree; hence the source archive `manjutex.zip` features the following subdirectories the contents of which has to be placed into appropriate branches of the TEX installation:

- `mfinput` holds the complete Metafont sources for the Tibetan fonts. The suggested path for emtex users is `\emtex\mfinput\manju`; for teTeX users `$TEXMF/fonts/source/public/manju` is a suitable choice.

- `tfm` holds all necessary font metrics files. The suggested path for emtex users is `\emtex\tfm\manju`; for teTeX users `$TEXMF/fonts/tfm/public/manju` is a suitable choice.

- `texinput` holds all style files, font encoding definitions etc. which are read by TEX and LATEX 2_ε. The suggested path for emtex users is `\emtex\texinput\manju`; for teTeX users `$TEXMF/tex/latex/manju` is a suitable choice.

- `doc` contains the documentation (the document which you are reading right now). It can be placed in `\emtex\doc\manju` (for emtex users) or `$TEXMF/doc/latex/manju` (for teTeX users).

It may become necessary to rehash the directory database of the TEX system. When in doubt, consult your system administrator or local TEX wizard. On teTeX systems, the command `texhash` will perform this service.

3 User Commands

ManjuTEX provides the common command `\bth` (as in ᠪᡳᡨᡥᡝ *bithe*) to switch to Manju mode. A Manju font is selected and the Latin input is automatically interpreted as transliterated Manju. The transliteration closely follows Hauer's system and is presented in the next section.

3.1 Using ManjuTEX with TEX

If you only use LATEX 2$_\varepsilon$ then you can safely skip reading this paragraph.

Near the beginning of your TEX document (or before your first instance of Manju text) you have to input the Manju macros by saying

```
\input manju
```

which will provide a size selection command, `msize`, and the font switching command `\bth`.

A complete Manju TEX document could look like this:

This is Manju:
ᠮᠠᠨᠵᡠ ᠪᡳᡨᡥᡝ

```
\input manju
\msize
This is Manju:\\
{\bth manju bithe}
\bye
```

In effect, three different font sizes can be selected using `msize` (10 points), `msizei` (11 points) and `msizeii` (12 points).

The commands to toggle between Manju writing and Computer Modern are `\bth` and `\tenrm`, respectively. Please note that `\tenrm` is redefined by ManjuTEX to the effect that the size selection command overrides the 10 point size of `\tenrm`[1].

3.2 Using ManjuTEX with LATEX 2$_\varepsilon$

LATEX 2$_\varepsilon$ users activate the Manju package by saying

```
\usepackage{manju}
```

in the preamble of the document. The font selection command is `\bth`. The size is set through the NFSS system.

A Manju document could contain the following code snippet:

This is Manju:
ᠮᠠᠨᠵᡠ ᠪᡳᡨᡥᡝ

```
This is Manju:\\
{\bth manju bithe}
```

[1] This 'feature' was taken from the Tibetan package.

3.2.1 Vertical Text Capsules

With PostScript support it becomes possible to typeset vertical capsules of Manju text. Simply issue the command `\mabosoo{}`, include a text argument and see how it works:

ᠮᠠᠨᠵᡠ ᠪᡳᡨᡥᡝ is *manju bithe.*	`\mabosoo{manju}\mabosoo{bithe}` `is \textit{manju bithe}.`

4 Character Set and Romanization

Given by dictionary order, the system provides the following basic character set:

4.1 Basic Character Set

Manju	Input	Latin	Manju	Input	Latin	Manju	Input	Latin
ᠠ	a	a	ᡥ	h	h	ᠴ	c	c
ᡝ	e	e	ᠪ	b	b	ᠵ	j	j
ᡳ	i	i	ᡦ	p	p	ᠶ	y	y
ᠣ	o	o	ᠰ	s	s	ᠺ	k’	k’
ᡠ	u	u	ᡧ	s’	š	ᡬ	g’	g’
ᡡ	v	ū	ᡨ	t	t	ᡭ	h’	h’
ᠨ	n	n	ᡩ	d	d	ᡵ	r	r
ᡴ	k	k	ᠯ	l	l	ᡶ	f	f
ᡤ	g	g	ᠮ	m	m	ᠸ	w	w

While the input method for the majority of characters matches the transliteration conventions, some letters require a slightly different treatment:

1. Although the diphtong ᠠᡳ is usually rendered as *ai*, it must be entered as `aii` in order to produce the desired effect.

2. The vowel which is conventionally rendered as *û* or *ū* ᡡ can be entered as `v` or as `\={u}` due to the fact that a character *û* is not readily available on most systems.

3. The consonant *š* ᡧ can be entered as `s’`or as `\v{s}`, but not as `*sh` as to avoid undesired mergers of *s* and *h* like in *ishun* ᡳᠰᡥᡠᠨ which should not be **išun* ᡳᡧᡠᠨ!

4.2 Extended Character Set

The following special characters listed in major dictionaries are provided:

Manju	Input	Latin
	sy	sy
	cy	cy
	j'	jy
	dz	dz
	tsh	tsh
	tshy	tshy
	zr	zr

Please note that due to internal limitations of the retransliteration engine, *jy* has to be entered as `j'`.

4.3 Tibetan Transliteration Character Set

Besides these characters, an additional small set of special characters is provided for rendering Tibetan transliterations as given in the Pentaglot dictionary:

Manju	Input	Latin
	z	z
	zh	zh
	ts	ts
	ng'	ng'
	l'	l'
	p'	p'
	t'	t'

It becomes thus possible to spell out the Tibetan alphabet in Manju writing, as used in the Pentaglot dictionary for Tibetan and Uighur transliterations:

ཀ་ ka	g'a	ཁ་ kha	k'a	ག་ ga	ga	ང་ nga	ng'a
ཅ་ ca	jiya	ཆ་ cha	cia	ཇ་ ja	ja	ཉ་ nya	niya
ཏ་ ta	t'a	ཐ་ tha	ta	ད་ da	da	ན་ na	na
པ་ pa	ba	ཕ་ pha	pa	བ་ ba	wa	མ་ ma	ma
ཙ་ tsa	tsa	ཚ་ tsha	tsha	ཛ་ dza	dza	ཝ་ wa	wa
ཞ་ zha	zha	ཟ་ za	za	འ་ '	ea	ཡ་ ya	ya
ར་ ra	ra	ལ་ la	la	ཤ་ sha	s'a	ས་ sa	sa
ཧ་ ha	h|a	ཨ་ a	a				

Besides these basic representations, certain deviations exist:

1. ང་ *nga* is used for Tibetan initials and subscripts; finals are expressed as
2. While ཧ་ *ha* is used for Tibetan initial ཧ་, a different form is taken for subscripted *ha*, as in ལྷ་ *lha* .

4.4 Special Characters

ManjuTEX and its progenitor MonTEX share the complete set of numbers and punctuation marks as well as a few special characters used for influencing the presentation of the writing.

Provided a word should end with a non-final glyph shape then the Environment Marker $\boxed{*}$ is used which is entered as an asterisque `*`. This is helpful for writing abbreviated words or marking non-final vowels, like which is entered as `o*`.

Whenever the plethora of diacritics used in Manju writing causes ugly clashes between adjacent letters, then the 'backbone' (mong. *nirugu*), entered as `|`, can be used to stretch the distance between clashing letter elements, like in which should be entered `h|a` rather than `ha` resulting in .

5 Outlook and Desiderata

Unfortunately, some code positions in the Metafont sources of ManjuTEX haven't been frozen yet which implies that documents containing Manju text should be recompiled once a new version of this software is issued.

In addition, the author is not happy yet with some of the interaction performed by certain glyph combinations. This will have to be refined definitely!

With Ωmega lurking around, ManjuTEX should actually be obsolete work. A unified encoding comprising all Mongolian writings has been integrated into Unicode 3.0 and ISO 10646. The author needed a quick solution for ongoing lexicographical work (the Pentaglot database, that is) and will merge ManjuTEX with the existing MonTEX system later. At that point, there will also be full-featured Ωmega support.

Anyway, whatever the mistakes and the shortcomings are that have crept into this Manju system, I can only kindly ask you to blame me.

Now go forth and create
beautiful Manju text!
Oliver Corff, Shenyang,
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