

The kanbun package

テらてふヲルガヲためぱつけーぢ
以羅蝶作漢文訓讀用包

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1 Introduction

The kanbun package, like other *kanbun-kundoku* (漢文訓讀) \LaTeX packages (such as gckanbun), allows users to manually input macros for elements in a *kanbun-kundoku* paragraph.

More importantly, it accepts input with light markup in the “*kanbun* annotation” form when used with Lua \LaTeX , which allows typesetting *kanbun-kundoku* paragraphs efficiently¹.

2 Basic example with Lua \LaTeX

As seen in the following example, typesetting a *kanbun-kundoku* paragraph with the kanbun package requires only light annotations — it automatically transforms the annotated plain text into \LaTeX macros through Lua, rather than having users type in macros themselves.

¹The idea comes from 漢文 HTML by UntPhesoca, which is a JavaScript and css implementation.

```

\documentclass{ltjarticle}
\usepackage[kumi=aki, tateaki=1]{kanbun}
\begin{document}
\Kanbun
月落チ烏啼キテ霜満ツ[レ]天ニ，
江楓漁火対ス[二]愁眠ニ[一]。
姑(こ)蘇(そ)城外ノ寒山寺，
夜半ノ鐘声到ル[二]客船ニ[一]。
\EndKanbun
\printkanbun
\end{document}

```

夜 姑^こ 江 月
 半^ル 蘇^そ 楓 落^チ
 鐘 城 漁 烏
 聲 外^ノ 火 啼^{キテ}
 到^ル 寒 對^ス 霜
 客 山 愁 満^ッ
 船^ニ 寺 眠^ニ 天^ニ

Note that if you want to use this functionality, you have to run this document with Lua[®]TeX.

3 Usage

3.1 Package options

Load the package with

```
\usepackage[<kanbun options>]{kanbun}
```

This package provides a variety of customisable features in *kanbun-kundoku*.

`scale=<ratio>`

Sets the ratio of the size of *kanji* to that of ruby texts. Default: 2.

`fontcmd`= $\langle font\ command \rangle$

Sets the font command to use for *kanji*. If `luatexja-fontspec` is loaded, it is set default to `\addfontfeatures{RawFeature={+trad}}` to obtain traditional *kanji* if applicable.

`rubyfontcmd`= $\langle font\ command \rangle$

Sets the font command to use for ruby texts. If `luatexja-fontspec` is loaded, it is set default to `\addfontfeatures{RawFeature={+ruby}}` to obtain ruby glyphs when applicable.

`unit`= $\langle length \rangle$

Sets the dimensions of *kanji* (assuming it is a square). Default: `\kanbun_init_zw`, which is a length equal to 1em.

`yokoaki`= $\langle ratio \rangle$

Sets the horizontal space between *kanji* with respect to the size of ruby texts. Default: 2.

`tateaki`= $\langle ratio \rangle$

Sets the vertical space between *kanji* with respect to the size of ruby texts. Default: 2.

`okuriintrusion`= $\langle ratio \rangle$

Sets the intrusion of *okurigana* (how much *okurigana* should be vertically tucked into the space of *kanji*) with respect to the size of ruby texts, if that does not cause an overlap with *furigana*. Default: 1.

`kumi`=aki, beta

Sets whether to use *aki-gumi* (typeset with uniform inter-character spacing) or *beta-gumi* (typeset with no inter-character space between adjacent character frames). Or simply call `aki` or `beta` without `kumi=`. Default: `aki`.

After initialising the options, you can still change the option values through `expl3` syntax, with a prefix `\kanbun_` to option names. For example, to switch to *beta-gumi*, you could use

```
\ExplSyntaxOn
\tl_set:Nn \kanbun_kumi { beta }
\ExplSyntaxOff
```

3.2 Basic usage without Lua^AT_EX (not recommended)

When not using the advanced *kanbun*-annotation functionality, it is possible to typeset *kanbun* with any engine with CJK support, such as using X_Y^AT_EX with the xeCJK package, or using up^AT_EX with utarticle or other appropriate class.

```
\kanjiunit{ \furiokuri{<right furigana>}{<right okurigana>} }
  {<left (top) punctuation (e.g. '「')>}
  {<kanji>}
  {<other punctuation>}
  {<kaeriten>}
  { \furiokuri{<left furigana>}{<left okurigana>} }
```

`\kanbunfont`

Sets the font size of *kanji*. Use when the unit option is set different to the document's default font size.

Use `\multifuriokuri` instead of `\furiokuri` if you are putting *furigana* to multiple kanji.

```
\multifuriokuri[<length by which ruby is raised>]{<furigana>}{<okurigana>}
```

For example, the code

```
% example text from https://phesoca.com/kanbun-html/
\kanbunfont
\kanjiunit{}{}{子}{}{}{}
\kanjiunit{\furiokuri}{}{ク}{}{}{曰}{}{,}{}{}
\kanjiunit{\furiokuri}{}{ソ}{}{}{盍}{}{}{三}{\furiokuri}{}{ル}{}
\kanjiunit{}{}{各}{}{ゞ}{}{}{}
\kanjiunit{\furiokuri}{}{ハ}{}{}{言}{}{}{二}{}{}
\kanjiunit{\furiokuri}{}{ノ}{}{}{爾}{}{}{}{}
\kanjiunit{\furiokuri}{}{ヲ}{}{}{志}{}{。}{-}{}{}
\par
```

outputs

言^ハ 子
 爾^ノ 曰^ク
 志^ヲ 盍^ソ
 各^ゞ

with `tateaki` set to 1.

3.3 Usage with Lua^AT_EX

Kanbun annotation uses the following brackets to mark different elements in *kanbun-kundoku* (as described in [漢文 HTML](#) by UntPhesoca).

- (): *furigana* (振仮名)
- { }: *okurigana* (送仮名) (these brackets can be omitted)
- ‹ ›: *furigana* (振仮名) of *saidoku-moji* (再読文字)
- « »: *okurigana* (送仮名) of *saidoku-moji* (再読文字)
- []: *kaeriten* (返り点)
- ‘ ’: multiple *kanji*, potentially with *tateten* inserted, as a ruby base; group ruby (グループルビ)
- no annotation: *kanji* (漢字) and punctuation

Tateten (豎点) can be input with either — (U+2015), — (U+2014) or | (U+3190).

`\Kanbun`
`\EndKanbun`

Write the annotated *kanbun* between the commands `\Kanbun` and `\EndKanbun`, and it will be processed and saved, ready to be used later.

`\printkanbun`

Where you would like to use the most recently saved *kanbun-kundoku* paragraph, use `\printkanbun`.

`\printkanbuncode`

If you wish to make modifications on the result or to use the result with a non-Lua^AT_EX engine, it is possible to obtain the macros using `\printkanbuncode` (prints in the terminal), and continue to work from there.

You can always save `\printkanbun` to a macro for use later and start a new annotated *kanbun* block, as in the following example.

```
% example text from https://phesoca.com/kanbun-html/
\documentclass{ltjtarticle}
\usepackage[kumi=beta]{kanbun}

\Kanbun
此レ乃チ信(しん)之‘所一[三]以’(ゆゑん)為ル[二]陛下ノ禽(とりこ)ト[一]也。
\EndKanbun
\let\信\printkanbun

\Kanbun
孤之有ルハ[二]孔明[一]，猶ホくごとく「キ」[二]魚之有ルガ[一レ]水也。
\EndKanbun
\let\孔明\printkanbun

\begin{document}
\孔明\par\bfseries\信
\end{document}
```

孤^{ルハ}之^二有^一孔明^一，猶^ホホくごとく「キ」^二魚^二之^一有^{ルガ}水^レ也。
 此^レ乃^チ信^{しん}之^{ゆゑん}所^一以^三為^{ルキ}陛下^ノ禽^{とりこ}ト^一也。