

1 LuaTeX-cn User Manual

中文版¹

`luatex-cn` is a macro package specifically designed for LuaTeX, with enhanced support for traditional Chinese vertical layout (Guji) and modern vertical typesetting.

1.1 1. Installation and Preparation

1.1.1 System Requirements

- **Compiler:** Must use LuaLaTeX (version 1.10+). pdfLaTeX or XeLaTeX are not supported.
- **Distribution:** TeX Live 2024 or higher is recommended.

1.1.2 Font Configuration

While the package supports auto-detection, we **strongly recommend** manually specifying a high-quality font to support rare characters:

- **Recommended:** Use `\setmainfont{TW-Kai}` (TW-Kai font) for the best compatibility and Guji aesthetics.
- **Auto-detection:**
 - **Windows:** "SimSun", "Microsoft YaHei".
 - **macOS:** "Songti SC".

For detailed manual font configuration, please refer to: FONT-SETUP.md².

1.2 2. Quick Start

1.2.1 Basic Ancient Book (Guji) Template

Create a `.tex` file, mirroring our Shiji example:

```
\documentclass[四库全书彩色]{ltx-guji}

\usepackage{enumitem}
\usepackage{tikz}

% Strongly recommended to set a specific font
\setmainfont{TW-Kai}

\title{欽定四庫全書}
\chapter{史記\\卷一}

\begin{document}
\begin{正文}
欽定四庫全書

\begin{列表}
\item 史記卷一
\item \填充文本框 [12]{漢太史令}司馬遷\空格 撰
\item 五帝本紀第一
\end{列表}

\begin{段落}[indent=3]
Main text content goes here...
```

¹README.md

²./FONT-SETUP.md

```
\夹注{This is interlinear small text (Jiazhu). The package handles alignment automatically.}
\end{段落}

\end{正文}
\end{document}
```

Compile with `lualatex` to obtain a colorful Guji page with automatic Banxin.

1.3 3. Document Classes and Templates

The project provides two main document classes:

1.3.1 `ltc-guji.cls` (Specialized for Guji)

Includes complex grids, fish-tails, and Banxin control, suitable for reproducing historical documents.

- **Built-in Templates:**
 - 四库全书 (SiKuQuanshu): Classic official style with green/red interfaces.
 - 红楼梦甲戌本 (HongLouMeng Jiaxu Edition): Simulates manuscript style, supporting side and top notes.

1.3.2 `ltc-book.cls` (Modern Vertical Layout)

Suitable for modern novels or reports. It has no grid by default and offers a more flexible layout.

- **Usage:** Wrap your content in the `\begin{正文} ... \end{正文}` environment (or its alias `\begin{ltc-book-content} ... \end{ltc-book-content}`).
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1.4 4. Feature and Command Reference

1.4.1 4.1 Core Typesetting Engine

- `\竖排[params]{content}` (Alias: `\VerticalRTT`): Arranges the specified content according to a vertical grid.
- `\TextBox[params]{content}`: Creates a gridded text box.
 - `height`: Number of lines occupied (grid height).
 - `n-cols`: Number of internal columns (e.g., typeset 3 columns of small text within one large grid line).
 - `box-align`: Content alignment (`top`, `center`, `bottom`, `fill`).
- `\Space[length]`: Inserts a grid placeholder.

1.4.2 4.2 Annotation System

- `\TextFlow{content}` (Alias: `\文本流`, `\夹注`): Generates "Jiazhu" (double-column small text) common in ancient books.
- `\SideNode[params]{content}` (Alias: `\侧批`, `\CePi`): Adds annotations to the margins.
 - `yoffset`: Vertical offset.
 - `color`: Annotation color (often red in Guji).
- `\PiZhu[params]{content}` (Alias: `\批注`): Creates a floating annotation box that supports absolute positioning anywhere on the page.
 - `x`, `y`: Absolute coordinates (X and Y relative to the page).
 - `height`: Height of the annotation box (in grid lines).
 - `font-size`: Font size for the annotation.
 - `color`: Color of the annotation (supports RGB format, e.g., `1 0 0` for red).
 - `grid-width`, `grid-height`: Internal grid dimensions for the annotation box.

1.4.3 4.3 Decoration and Positioning

- `\YinZhang[params]{image_path}`: Inserts an absolutely positioned seal/stamp on the current page.
 - `page`: Specifies the target page number.
 - `x, y`: Coordinate position (relative to the top-left corner of the page).
 - `width`: Seal width.

1.4.4 4.4 Paragraph Control

- `\begin{Paragraph}[params]`:
 - `indent`: Global indentation.
 - `first-indent`: First-line indentation (default is 1 or 2 characters).
 - `bottom-indent`: Bottom (right-side) padding.

1.4.5 4.5 Global Configuration (`\gujiSetup`)

- `book-name`: The book title displayed at the top of the Banxin.
 - `chapter-title`: The chapter title displayed in the Banxin.
 - `border`: Whether to display grid lines (`true/false`).
 - `n-char`: Number of characters per line (a common constraint in Guji layout).
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1.5 5. More Resources

For more in-depth examples, please check the 示例³ (example) folder in the project root.

³../示例/