

# The `xeCJK` Package

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## 1 Main features

The package `xeCJK` allows XeLaTeX users to typeset CJK scripts easily.

1. different default fonts for CJK and other characters;
2. spaces automatically ignored between CJK characters;
3. special effects on full-width CJK punctuation; and
4. automatic adjustment of the space between CJK and other characters.

`\punctstyle{marginerning}`

`xeCJK` 是在 CCT 和 CJK 包基础上发展起来的, 支持多种标点格式。例如, “标点挤压”。

`\punctstyle{fullwidth}`

`xeCJK` 是在 CCT 和 CJK 包基础上发展起来的, 支持多种标点格式。例如, “标点挤压”。

`\punctstyle{halfwidth}`

`xeCJK` 是在 CCT 和 CJK 包基础上发展起来的, 支持多种标点格式。例如, “标点挤压”。

`\punctstyle{mixedwidth}`

`xeCJK` 是在 CCT 和 CJK 包基础上发展起来的, 支持多种标点格式。例如, “标点挤压”。

## 2 Usage

To use `xeCJK`, one need some version of XeTeX after [2008/03/07].

`\usepackage[Options]{xeCJK}`

#### Options

[BoldFont]:	Create "synthetic bold" fonts for CJK characters. Will be overridden by specifying BoldFont in the definition of a CJK family.
[ItalicFont]:	Create slanted fonts for CJK characters. Will be overridden by specifying ItalicFont in the definition of a CJK family.
[CJKnumber]:	Load the CJKnumb package.
[CJKaddspaces]:	Add spaces between CJK and other characters.
[CJKnormalspaces]:	Ignore only spaces between CJK characters while leave spaces between CJK and other characters as they are.

```
\setCJKmainfont [<font features>]{<font name>}
\setCJKsansfont [<font features>]{<font name>}
\setCJKmonofont [<font features>]{<font name>}
\setCJKfamilyfont {<family name>}[<font features>]{<font name>}
```

The first three macros are analogs of `\setmainfont`, `\setsansfont`, and `\setmonofont`, respectively. The only difference is that they effect only CJK characters.

The last macro sets a font for a CJK family which will be called by `\CJKfamily{<family name>}`.

With these macros, one can set different default fonts for CJK and other characters, respectively.

For a full description on the parameters `<font features>` and `{<font name>}`, we refer to the package `fontspec`.

### 3 Advanced settings

`\punctstyle{<punct style>}`

Set the CJK punctuation style. `xeCJK` predefines several styles for typesetting full-width punctuation.

style

**quanjiao** or **fullwidth**

typeset all punctuation in full-width, for two adjoint punctuation, the first is typeset in half-width.

**banjiao** or **halfwidth**

typeset all punctuation in half-width.

**kaiming** or **mixedwidth**

typeset all punctuation in half-width except the period, question, and exclamation marks.

**hangmobanjiao** or **marginkerning**

typeset punctuation at the end of lines in half-width.

To get the best performance on the typeset of full-width punctuation, one need to build font specific box files. We provide some scripts to do this. See `source/xelatex/xecjk/getbbox/README` for details.

```
\xeCJKallowbreakbetweenpuncts
\xeCJKnobreakbetweenpuncts
```

By default, **xeCJK** prohibits line breaks between punctuation. Use `\xeCJKallowbreakbetweenpuncts` to make it breakable.

```
\xeCJKsetslantfactor{<slant factor>}
\xeCJKsetemboldenfactor{<embolden factor>}
```

Set slant and embolden factors, respectively. The default settings are

```
\xeCJKsetslantfactor{0.17}
\xeCJKsetemboldenfactor{4}
```

Note that both macros effect only CJK families defined after them.

```
\CJKnormalspaces
\CJKaddspaces
\CJKnospaces
```

By default, **xeCJK** leaves spaces between CJK and other characters as they are while it ignores spaces between CJK characters. One can use `\CJKaddspaces` to add a space between CJK and other characters if a blank space is not present. And use `\CJKnormalspaces` to change to the default.

An example for `\CJKaddspaces`

The input

```
这是 English 中文 \textit{Chinese} {\bfseries 中文} \LaTeX\
间隔 {\itshape Italic} 字体 \par
这是 English 中文 \textit{Chinese}{\bfseries 中文}\LaTeX\
间隔 {\itshape Italic} 字体 \par
```

The output

这是 English 中文 *Chinese* 中文 **LaTeX** 间隔 *Italic* 字体  
 这是 English 中文 *Chinese* 中文 **LaTeX** 间隔 *Italic* 字体

## 4 Compatibility

### 4.1 CJKfntef

Load CJKfntef after xeCJK to get various effects on CJK characters.

### 4.2 CJKnumber

To use the package CJKnumb, one can specify the option [CJKnumber] while loading [xeCJK](#).

### 4.3 CJK

To be compatible with some CJK-related packages CJKnumb, CJKfntef and CJKulem, [xeCJK](#) re-defines some macros in the package CJK and it is not compatible with the later. In fact, [xeCJK](#) prevents automatically from loading CJK after [xeCJK](#).