

# The `bxcjkvert` Package

Takayuki YATO (aka. “ZR”)

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## Abstract

This package is a tailored version of the `CJKvert` package, accommodated for Japanese typesetting, where mixture of horizontal and vertical writings is common.

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## 1 Package Loading

`\usepackage[<option>,...]{bxcjkvert}`

The `CJKvert` package will be automatically loaded, if not yet loaded.  
The available options are described hereafter.

### 1.1 Options for configuring font reset

When a command for switching direction (`\CJKhorz` or `\CJKvert`) is invoked, `CJKvert` resets the current font parameter by issuing `\normalfont`. This feature is inconvenient, particularly when authors mix different writing directions. Thus `bxcjkvert` suppresses the feature by default, but it can be configured by the `resetfont` option.

- `resetfont=true`: Makes direction commands reset the current font by issuing the `\normalfont` command. This is the default in `CJKvert`.
- `resetfont=false` (default): Makes direction commands retain the current font.

### 1.2 Options for configuring adjustment of the baseline-stretch

`CJKvert` makes some adjustment to the value of `\baselinestretch` when the writing direction is changed. Namely it makes the baseline-stretch enlarged by the factor of `\CJKbaselinestretch`<sup>1</sup> when `\CJKvert` is used.

However as far as Japanese typesetting is concerned, there is no need to tweak the baseline-stretch value. Thus `bxcjkvert` suppresses this feature, but again it can be configured by the `usebaselinestretch` option.

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<sup>1</sup>The value of `\CJKbaselinestretch` is 1.3 by default.

- `usebaselinestretch=true`: This is the same as the behavior of `CJKvert` *with* the `usebaselinestretch` option. When `\CJKvert` is invoked, the baseline-stretch will be multiplied by the value of `\CJKbaselinestretch`. When `\CJKhorz` is invoked, the baseline-stretch will be reverted.<sup>2</sup>
- `usebaselinestretch=false`: This is the same as the behavior of `CJKvert` *without* the `usebaselinestretch` option. When `\CJKvert` is invoked, the baseline-stretch will be set to the value of `\CJKbaselinestretch`. When `\CJKhorz` is invoked, the baseline-stretch will be reset to 1. This option ignores the user's setting to the baseline-stretch.
- `usebaselinestretch=retain` (default): Makes direction commands leave the baseline-stretch unchanged.

*Note:* If `CJKvert` is loaded with the `usebaselinestretch` option in advance, then the value of `usebaselinestretch` of this package will be default to `true` instead of `retain`.

### 1.3 Options for configuring initial writing direction

`CJKvert` sets the initial writing direction of the document to vertical. But `bxCJKvert` allows authors to choose the initial direction.

- `main=true`: Sets the initial direction to vertical. This is the default in `CJKvert`.
- `main=false`: Sets the initial direction to horizontal.
- `main=retain` (default): Does not specify the initial direction. In this case, authors can use `\CJKvert` or `\CJKhorz` in the preamble to decide the initial direction.

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<sup>2</sup>Note that, however, in this case the baseline-stretch will be reverted to the value at the time when `CJKvert` was loaded. it might be against authors' expectation.