The **rulerbox** package[*]

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1 Introduction

rulerbox is a LaTeX package providing macro `\rulerbox`, which draws rulers along edges of an object, in the following style:

2 Usage

2.1 Basic syntax

`\rulerbox{⟨content⟩}` somewhat resembles the macro `\fbox{⟨content⟩}` defined by LaTeX. The one mandatory parameter that both of them receive are the content to be wrapped inside a box. Then `\rulerbox` decorates the box edges with rulers, whereas `\fbox` frames the box by line segments. The original depth are preserved in a similar way; in other words, neither of these macros affects the baseline.

<div align="center">raggedright</div>

2.2 Edge selection

`\rulerbox[⟨edges⟩]{⟨content⟩}` also accepts an optional parameter, telling LaTeX which edges to be decorated with rulers. ⟨edges⟩ is any subset of

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`t`, `b`, `l`, and `r`, controlling the top, bottom, left, and right edges respectively. So `\rulerbox[tblr]{`⟨*content*⟩`}` behaves identically the same as `\rulerbox{`⟨*content*⟩`}` (unless default switches are turned off, see below), while `\rulerbox[]{`⟨*content*⟩`}` regresses to `\hbox{`⟨*content*⟩`}`.
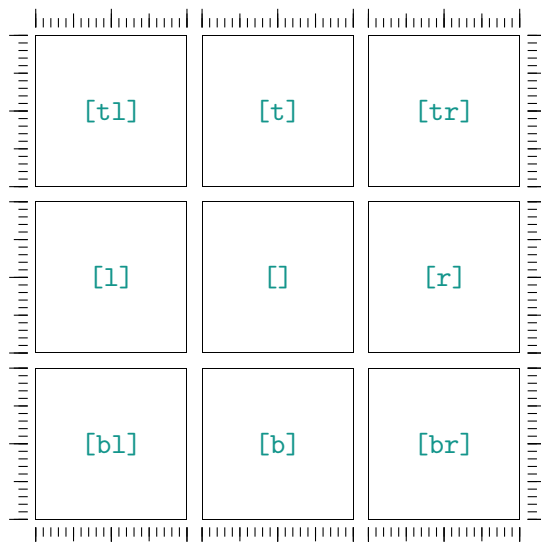
Default status of each edge can be set seperately and globally by switching `\ifrulertop`, `\ifrulerbottom`, `\ifrulerleft`, and `\ifrulerright`. For example, `\rulerleftfalse` suppresses all left rulers (except required explicitly by the optional parameter), until a `\rulerlefttrue` is seen.

2.3 Dimensions

Four dimensions are involved in the rulerbox package:

- `\rulerunit`: The least count of rulers, *i.e.* distance between adjacent ticks in rulers. Default is `1mm`, one millimetre, which produces rulers of metric length system. `\rulerunit` may be redefined to adapt to other *decimal* length systems, or draw rulers of relative scales.

  For example, if one want to switch to Chinese length units, he may define `\rulerunit=1cm\divide\rulerunit3\relax`, which makes the least count 10/3 mm, namely one *fen*（分）, or one tenth *cun*（寸）.

- `\rulersep`: Distance between box edges and rulers. Default is `3pt`.

- `\rulerwidth`: Length of longest ticks in rulers. Default is `7pt`.

- `\rtickrule`: Width of ticks in rulers. Default is `0.4pt`.