The rulerbox package*

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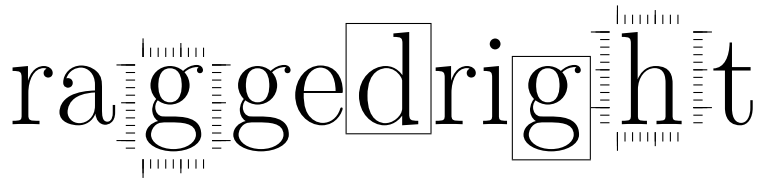
1 Introduction

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

This might be useful when showing the absolute size of something in electronic documents, or designating the relative scale in printed materials.

2 Usage

`\rulerbox{`⟨*content*⟩`}` somewhat resembles the macro `\fbox{`⟨*content*⟩`}` defined by LaTeX. The one mandatory parameter that they receive is the content to be wrapped inside a box. Then `\rulerbox` decorates the box edges with rulers, whereas `\fbox` frames the box by solid lines. Neither of them affects the vertical alignment.



2.1 Edge selection

`\rulerbox[`⟨*edges*⟩`]{`⟨*content*⟩`}` also accepts an optional parameter, telling LaTeX which edges to be decorated with rulers. ⟨*edges*⟩ is any subset of `t`, `b`, `l`, and `r`, controlling the top, bottom, left, and right edges respectively. So `\rulerbox[tblr]{`⟨*content*⟩`}` behaves identically the same as

*Github repository: https://github.com/Mikumikunisiteageru/rulerbox

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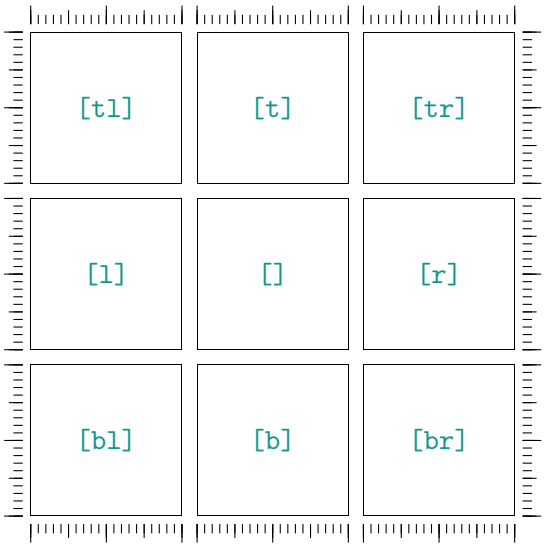
`\rulerbox{`⟨*content*⟩`}` (unless default switches are turned off, see below), while `\rulerbox[]{`⟨*content*⟩`}` regresses to `\hbox{`⟨*content*⟩`}`.



Default status of each edge can be set separately and globally by switching `\ifrulertop`, `\ifrulerbottom`, `\ifrulerleft`, and `\ifrulerright`. For example, `\rulerleftfalse` suppresses all left rulers (except required explicitly by ⟨*edges*⟩), until a `\rulerlefttrue` is seen.

2.2 Dimensions

Four dimensions are involved in the rulerbox package. They can be redefined locally by ⟨*dimen name*⟩`=`⟨*dimen express*⟩`\relax` in TEX style, or globally by `\setlength{`⟨*dimen name*⟩`}{`⟨*dimen express*⟩`}` in LATEX style.

- `\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 wants 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 tick lines in rulers. Default is `0.4pt`.