The bartabs package

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Abstract

This package provides support for generating small, horizontal bar data graphics, in the spirit of the data graphics discussed starting on p. 123 of Edward Tufte's *The Visual Display of Quantitative Information* (Cheshire, Connecticut, 2007). For example, here is a bar set at 50% of the default width with error bars set at 25%:

1 Getting the package

The bartabs package is hosted in a repository on GitHub at github.com/justinmeza/bartabs. If you have git installed, you can check out your own copy with the command:

```
git clone git@github.com:justinmeza/bartabs.git
```

There, you will find the style file as well as this example document.

2 Using the package

Once you obtain the style file, you must declare that you are using it in your document by adding the following line before \begin{document}:

\usepackage{bartabs}

Doing so will let you use several commands to create bar data graphics, described next in examples.

Example 1

A solid bar of a percentage of the default width.

Lorem	\mbar{50} ipsum.	Lorem	ipsum.
Lorem	\mbar{3.14159} ipsum.	Lorem	ipsum.

Example 2

A solid bar of a normalized fraction of the default width.

Lorem \mbarnorm{50}{100} ipsum. Lorem ipsum.

Lorem \mbarnorm{50}{75} ipsum. Lorem ipsum.

Example 3

A solid bar of a percentage of the default width with left and right error lines of a fraction of that width.

Lorem \mbarerr{50}{0.5} ipsum. Lorem ipsum.

Lorem \mbarerr{100}{1.0} ipsum. Lorem ipsum.

Example 4

A solid bar of a normalized fraction of the default width with left and right error lines of a fraction of that width.

Lorem \mbarnormerr{50}{100}{0.5} ipsum.

Lorem \mbarnormerr{50}{75}{0.618} ipsum.

Lorem \mbarnormerr{50}\text{ipsum}.

Example 5

The default width of the bars can be controlled with the \mbarwidth length.

\setlength{\mbarwidth}{8em}

Lorem \mbar{50} ipsum Lorem ipsum.

Lorem \mbar{3.14159} ipsum. Lorem ipsum.

Example 6

The default height of the bars can be controlled with the \mbarheight length.

\setlength{\mbarheight}{2.5em}

Lorem \mbar{50} ipsum. Lorem ipsum.

Lorem \mbar{3.14159}} ipsum. Lorem ipsum.

Example 7

The default thickness of the error line can be controlled with the \mbarerrlinelen length.

```
\setlength{\mbarerrlinelen}{2pt}

Lorem \mbarerr{50}{0.5} ipsum. Lorem ipsum.

Lorem \mbarerr{100}{1.0} ipsum. Lorem ipsum.
```

Example 8

A solid bar of a normalized fraction of the default width with a left error line a fraction of that width.

```
Lorem \mbarerr1{50}{0.5} ipsum. Lorem ipsum. Lorem \mbarerr1{100}{0.95} ipsum. Lorem ipsum.
```

Example 9

A solid bar of a normalized fraction of the default width with a right error line a fraction of that width.

```
Lorem \mbarerrr{50}{0.25} ipsum. Lorem ipsum. Lorem \mbarerrr{100}{0.05} ipsum. Lorem ipsum.
```

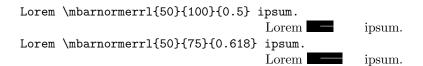
Example 10

A solid bar of a percentage of the default width with right and left error lines separate fraction of that width.

```
Lorem \mbarerrlr{50}{0.5}{0.25} ipsum. Lorem \mbarerrlr{100}{0.95}{0.05} ipsum. Lorem \mbarerrlr{100}{0.95}{0.05} ipsum.
```

Example 11

A solid bar of a normalized fraction of the default width with a left error line of a fraction of that width.



Example 12

A solid bar of a normalized fraction of the default width with a right error line of a fraction of that width.

```
Lorem \mbarnormerrr{50}{100}{0.5} ipsum.

Lorem ipsum.

Lorem \mbarnormerrr{50}{75}{0.618} ipsum.

Lorem ipsum.
```

Example 13

A solid bar of a normalized fraction of the default width with right and left error lines separate fraction of that width.

```
Lorem \mbarerrlr{50}{0.5}{0.25} ipsum.

Lorem \mbarerrlr{100}{0.95}{0.05} ipsum.

Lorem \mbarerrlr{100}{0.95}{0.05} ipsum.
```

Example 14

Bars can be used to provide a simple illustration of scientific data in a table.

Name	Datum		
Lorem Ipsum Dolor Sit	$10 \pm 0.1 20 \pm 0.2 40 \pm 0.3 80 \pm 0.4$		

3 To Do

- Right now, the source code is incredibly ugly. It needs to be cleaned up and make more modular.
- Colored bars and error lines could be interesting to implement.