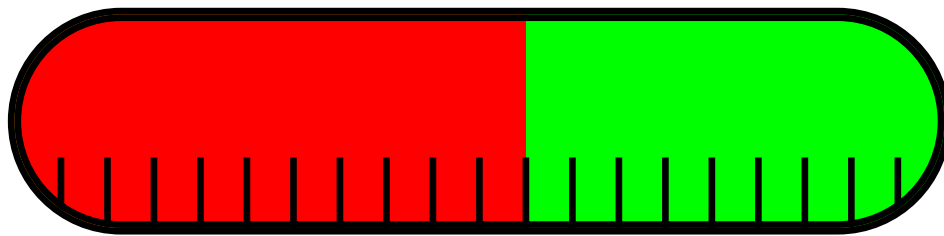# progressbar

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2013/01/06

Abstract

This package allows you to easily visualize shares of total amounts in the form of a bar. So basically you can convert a number like 0.735 to ▭ using the command `\progressbar{0.735}`.

Of course also a lot of customizations are possible (like this: ▭).

```
\progressbar[width=textwidth, heighta=3cm, filledcolor=
   red, emptycolor=green, borderwidth=5pt, tickswidth
   =2.5pt, roundnessr=0.5, subdivisions=20]{0.55}
```

Contents

1   Installation

Make sure the file `progressbar.sty` is placed somewhere, where LaTeXcan find it. Usually that means, you simply download the package `progressbar` with the LaTeX-package-manager of your choice.

1.1   Dependencies

You also have to ensure that all packages needed by `progressbar` are present (some package-managers do this for you). The dependencies are:

- calc

- kvsetkeys

- kvoptions

- tikz

2   How to use `progressbar`

`\usepackage{progressbar}`
`\usepackage[]{progressbar}`

Like any other package, to use `progressbar`, you have to load it first. You do this with

`\usepackage{progressbar}`

or

`\usepackage[<options>]{progressbar}`

(You can find an explanation of all options in the section 3.)

Once you have loaded `progressbar`, you can use two different commands, described in the following.

2.1   \progressbar

`\progressbar{}`
`\progressbar[]{}`

The command

`\progressbar{<number>}`

will draw you a progressbar with the share `<number>`. For example `\progressbar{0.666}` gives you this ▭. You would want to use only numbers in the interval $[0, 1]$, although other numbers are also possible (but will look just the same as `\progressbar{0}` or `\progressbar{1}`).

If you want one specific progressbar to look different than the others, use

`\progressbar[<options>]{<number>}`

instead. This command is just the same as `\progressbar{<number>}` but allows you to manipulate the appearance of the current progressbar. So `\progressbar[width=5cm,heightr=1,filledcolor=red,emptycolor=blue!30]{0.75}` would look like this: ▰▰▰▰▰▰▱▱▱. In this case the options are only changed locally. (You can find an explanation of all options in the section 3.)

2.2 `\progressbarchange`

`\progressbarchange{}`   In principle, the command `\progressbar{<number>}` uses the options specified with `\usepackage[<options>]{progressbar}` or the default options (if an option was not specified). As described in the previous section (2.1), you can override these options with `\progressbar[<options>]{<number>}`. However, if you want to change the settings for *all* following progressbar, you can use the command

```
\progressbarchange{<options>}
```

So basically

```
\progressbar{0.3}\\
\progressbar[roundnessr=0.5,ticksheight=1,tickswidth=1.5pt
    ]{0.4}\\
\progressbar[roundnessr=0.5,ticksheight=1,tickswidth=1.5pt
    ]{0.5}\\
\progressbar[roundnessr=0.5,ticksheight=1,tickswidth=1.5pt
    ]{0.6}
```

gives you the same as

```
\progressbar{0.3}\\
\progressbarchange{roundnessr=0.5,ticksheight=1,tickswidth=1.5
    pt}
\progressbar{0.4}\\
\progressbar{0.5}\\
\progressbar{0.6}
```

However, keep in mind that in the second case the options are changed globally. Therefore, all following progressbars will keep the changed design (as long as you don't call `\progressbarchange{<options>}` with other options again). (You can find an explanation of all options in the section 3.)

3 Options

3.1 Global and local options

You can set global options when you load the `progressbar` with `\usepackage[options]{progressbar}` and with the command `\progressbarchange{<options>}`. These options affect all following calls of the commands `\progressbar{<number>}` and `\progressbar[<options>]{<number>}`.

However, you can override global options with local options specified with `\progressbar[<options>]{<number>}`.

3.2 Options, their defaults and how to change them

All listed options can be used globally and locally.

You will notice that some of the options are available with the prefix r (standing for relative) aswell as with the prefix a (standing for absolute). I would recommend you to always use those options with the prefix r, as using absolute values might not interact too well with the rest of your documents settings. But as long as you know what you are doing, it's up to you.

heightr   default=1

The progressbars height as a fraction of the textheight[1].

```
\progressbar[heightr=1]{0.1}A progressbar that has the same
    height as the text\\
\progressbar[heightr=0.5]{0.9}A progressbar that has half the
    height
```

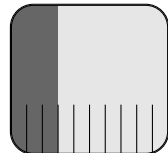A progressbar that has the same height as the text
A progressbar that has half the height

heighta   default=unused

With this option you can define the progressbars height absolutely.

```
\progressbar[heighta=2cm]{0.3} A progressbar that has the
    height 2~cm\\
\progressbar[heighta=10pt]{0.7} A progressbar that has the
    height 10~pt\\
\progressbar[heighta=\heightof{a} + 0.8pt]{0.42} A progressbar
    whose upper border starts at the same height as the letter
    "a"
```

A progressbar that has the height 2 cm
A progressbar that has the height 10 pt
A progressbar whose upper border starts at the same height as the letter "a"[2]
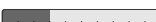
roundnessr   default=0.15

progressbar allows rounded corners. With this option you can set them as a fraction of the progressbars height. You would not want to use numbers higher than 0.5.

```
\progressbar[roundnessr=0.25]{0.8} More rounder corners than
    the default\\
\progressbar[roundnessr=0.5]{0.5} In fact no more corners --
    complete roundness
```

---

[1] I used the capital letter "I" as a reference for the textheight
[2] The \heightof command and the possibility of adding is provided by the package calc

More rounder corners than the default

In fact no more corners – complete roundness

roundnessa   default=`unused`

You can also define the corners radius as absolute values.

```
\progressbar[roundnessa=2pt]{0} Rounded corners radius 2~pt\\
\progressbar[roundnessa=0cm]{1} No rounded corners
```

Rounded corners radius 2 pt

No rounded corners

width   default=`6em`

The width of the progressbar.

```
\progressbar[width=5cm]{0.123} Width: 5~cm\\
\progressbar[width=20em]{0.785} Width: 20~em
```

Width: 5 cm

Width: 20 em

borderwidth   default=`0.8pt`

The linewidth of the progressbars border.

```
\progressbar[borderwidth=2pt]{0.6} Borderwidth: 2~pt\\
\progressbar[borderwidth=0.025em]{0.3} Borderwidth: 0.025~em
```

Borderwidth: 2 pt

Borderwidth: 0.025 em

subdivisions   default=`10`

As you may have noticed, (by default) the progressbar also has ticks. Those ticks splits the progressbar in multiple subdivisions. You can define the number of subdivisions with `subdivisions=<number>`. Therefore the number of ticks is `<number>` − 1.

```
\progressbar[subdivisions=3]{0.666667} 3 subdivisions and 2
    ticks\\
\progressbar[subdivisions=15]{0.466667} 15 subdivisions and 14
    ticks
```

3 subdivisions and 2 ticks

15 subdivisions and 14 ticks

tickswidth   default=`0.4pt`

The linewidth of the ticks.

```
\progressbar[tickswidth=1mm]{0.55} Tickswidth: 1~mm\\
\progressbar[tickswidth=0.1pt]{0.4} Tickswidth: 0.1~pt
```

Tickswidth: 1 mm

Tickswidth: 0.1 pt

ticksheight   default=`0.33`

The height of the ticks as a fraction of the total progressbars height.

```
\progressbar[ticksheight=0.1]{0.22} Ticksheight: 10 ~\% of the
    total height\\
\progressbar[ticksheight=1]{0.88} Ticks are end-to-end
```

◼▭▭▭▭ Ticksheight: 10 % of the total height
▦▦▦▦▦▦▦▦▱ Ticks are end-to-end

linecolor	default=`black`
tickscolor	default=`black`
emptycolor	default=`black!10`
filledcolor	default=`black!60`

These options should be self-explaining. Just use `xcolor`-color-definitions (use color names or the syntax `<color-name>!<number between 0 and 100>`) for brighter colors).

```
\progressbar[linecolor=blue,tickscolor=orange,emptycolor=
    yellow,filledcolor=red]{0.6}
```

▦▦▦▦▦▦▭▭▭

4   Changelog

2014/05/04 `v.1.0b~4` version control for kvoptions updated (for unknown reason required version didn't exist)
2013/01/06 `v.1.0b~3` replaced `\progressbar@LoadFile@IfExist` with `\RequirePackage`
2012/02/18 `v.1.0b~2` added version control for kvoptions
2010/10/02 `v1.0b` first release - all basic functionality

5   Acknoledgment

A big shoutout to the pros from `http://www.mrunix.de/` (it's german). They helped me a lot and made `progressbar` possible.

I also want to thank Robin Schneider (`https://ypid.wordpress.com/`) and Heiko Oberdiek who called my attention to the problems with `\progressbar@LoadFile@IfExist`.

6   Contact

If you have any question concerning `progressbar` or if you miss a feature, please write me a mail: `mails4me@gmx.at`.