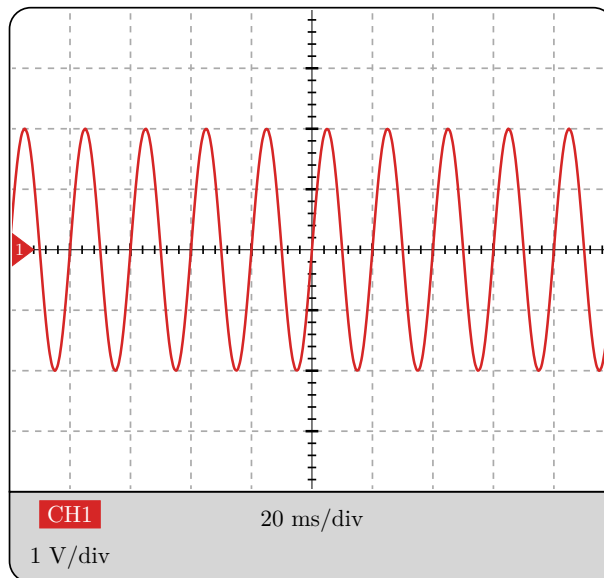


TikZ Oscilloscope Package

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1 Introduction



This package is modest alternative to the `pst-osci` package, not maintained anymore. Some features are not implemented yet, but the package is already usable with the basic options. I'm doing this for fun and to learn how to make a \LaTeX package. Therefore, I'm open to any suggestion or contribution :

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2 Usage

The package is loaded with the command `\usepackage{tikz-osci}`. It defines a single command, `\osci`, which takes a list of options as argument. The options allow you to configure and customize the oscilloscope screen view :

scale	Scale of the oscilloscope (with <code>scalebox</code>).	Default: 1.
second channel	1 if the second channel is enabled, 0 otherwise.	Default: 0.
screen offset one	Vertical screen offset of the first channel.	Default: 0.
screen offset two	Vertical screen offset of the second channel.	Default: 0.
time div	Time division (in ms).	Default: 20.
voltage div one	Voltage division of the first channel (in V).	Default: 1.
voltage div two	Voltage division of the second channel (in V).	Default: 1.
sample rate	Sample rate (in Hz).	Default: 200.
xy mode	1 if the oscilloscope is in XY mode, 0 otherwise. Not working yet !	Default: 0.
expr one	Expression of the first channel (pgf maths format).	Default: $2*\sin(2*180/0.020*x)$.
expr two	Expression of the second channel (pgf maths format).	Default: $1*\sin(2*180/0.020*x)$ + $0.2*\sin(2*180/0.040*x)$.
color one	Color of the first channel (in hexadecimal).	Default: D62626.
color two	Color of the second channel (in hexadecimal).	Default: 1053AF.
color xy	Color of the XY mode (in hexadecimal).	Default: 2E8B73.
graph back color	Background color of the graph (in hexadecimal).	Default: FFFFFFFF.
info back color	Background color of the information box (in hexadecimal).	Default: D6D6D6.
info text color	Text color of the information box (in hexadecimal).	Default: 000000.
main axis color	Color of the main axis (in hexadecimal).	Default: 000000.
sub axis color	Color of the sub axis (in hexadecimal).	Default: CCCCCC.

3 Examples

```

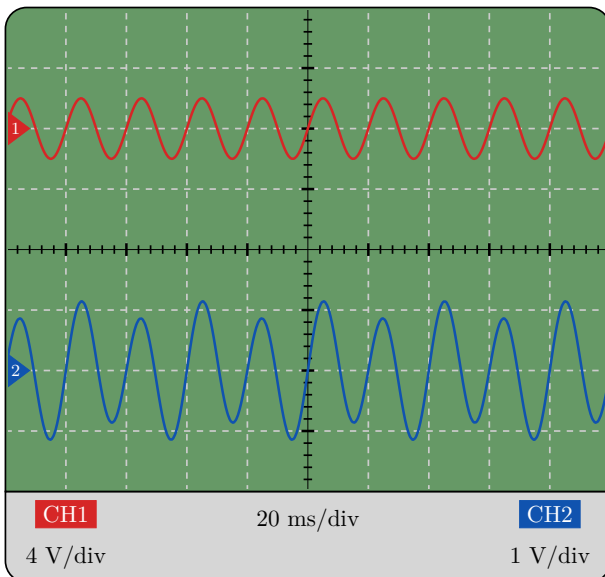
\osci[%
  scale=0.8,
  second channel=1,
  screen offset one=2,
  screen offset two=-2,
  time div=20,
  voltage div one=4,
  voltage div two=1,
  sample rate=200,
  xy mode=0,
  expr one=2*\sin(2*180/0.020*x),
  expr two=1*\sin(2*180/0.020*x)+0.2*\sin(2*180/0.040*x),
  color one=D62626,
  color two=1053AF,
  color xy=2E8B73,
  graph back color=669966,
  info back color=D6D6D6,

```

```

info text color=000000,
main axis color=000000,
sub axis color=CCCCCC
]

```



4 License

This package is distributed under the terms of the **LaTeX Project Public License** (LPPL), version 1.3c or later. The latest version of this license is available at <http://www.latex-project.org/lppl.txt>.

5 Credits

This package requires the following packages :

- `xcolor` maintained by the *LaTeX3 Project* (license LPPL 1.3c) ;
- `tikz` maintained by the *TikZ and PGF Project* (license LPPL 1.3c) ;
- `pgfkeys` maintained by the *Till Tantau* (license LPPL) ;
- `pgfplots` maintained by the *Christian Feuersänger* (license LPPL).

6 Changelog

- **0.1.0** : Initial release. XY mode not implemented yet.