

# timeline Package

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## Abstract

The `timeline` package provides an easy interface to create and maintain timelines. It provides macros utilising `tikz` and `pgf`.

## 1 License

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## 2 Environment options

The environment `timeline` has four optional arguments:

```
\begin{timeline}
    {\langle InnerBackgroundColor \rangle}
    {\langle InnerForegroundColor \rangle}
    {\langle OuterBackgroundColor \rangle}
    {\langle OuterForegroundColor \rangle}
```

They define the respective color for the events on the timeline. Default settings are some orange  with black text for the inner part and some blueish  with white text for the outer part.

## 3 Commands

Inside the `timeline` environment one can use the following commands.

**Add a timebar** This is done via the 6-parameter command

```
\timebar{\langle startsymbol \rangle}
    {\langle startXcoordinate \rangle}
    {\langle fromYear \rangle}
    {\langle toYear \rangle}
    {\langle stepLength \rangle}
    {\langle endSymbol \rangle}
```

$\langle startSymbol \rangle$  can be any symbol one could put on the left side of ‘-’ at `\draw[-]` in the `tikz`-command.

$\langle startXcoordinate \rangle$  is the  $x$ -coordinate.  $y$  is always considered to be 0.

$\langle fromYear \rangle$  is in YYYY.

$\langle toYear \rangle$  is in YYYY.

$\langle stepLength \rangle$  is the length of one year on the timebar.

$\langle endSymbol \rangle$  can be any symbol one could put on the right side of ‘-’ at `\draw[-]` in the `tikz`-command.

**Add a crunched bar part.** Used to literally skip some parts in the timebar where nothing happens. Drawn via the command

`\zigzag{\mathit{xStartCoordinate}}`

$\langle \mathit{xStartCoordinate} \rangle$  is the  $x$ -coordinate where it should start. Usually, when using this command, one has to calculate the  $x$ -coordinate by hand from what was executed before. Then length of the zigzag is 0.4.

**Entries.** An entry has four possible commands, depending on whether it should appear above, below, shifted above, or shifted below. The unshifted versions are essentially the same.

`\entry{\mathit{year}}{\mathit{what}}{\mathit{who}}`  
`\flippedentry{\mathit{year}}{\mathit{what}}{\mathit{who}}`

$\langle \mathit{year} \rangle$  is YYYY which has to exist on the timebar. Otherwise it will create a missing label error.

$\langle \mathit{what} \rangle$  the content of the inner (near the timebar) box.

$\langle \mathit{who} \rangle$  the content of the outer box.

`\entryshift{\mathit{year}}{\mathit{what}}{\mathit{who}}{\mathit{distance}}`  
`\flippedentryshift{\mathit{year}}{\mathit{what}}{\mathit{who}}{\mathit{distance}}`

$\langle \mathit{distance} \rangle$  is the length (usually in mm) which shifts the entry to the right (in direction of the  $x$ -coordinate).

## 4 Example

A small example is provided:

```
\begin{timeline}
  \timebar[|]{0}{1959}{1960}{.5}{}
  \zigzag{1}
  \entry{1959}{Branching Quantifiers}{Henkin}

  \timebar[]{}{1.4}{1989}{1990}{.5}{}
  \zigzag{2.4}
  \entry{1989}{IF-logic}{Hintikka, Sandu}

  \timebar[]{}{2.8}{1997}{2018}{.5}{stealth'}
  \entry{1997}{Compositional Semantics for IF}{Hodges}
  \entry{2003}{IF modal logic}{Tulenheimo}
  \entry{2007}{Dependence Logic}{Väänänen}
  \flipentry{2008}{Modal Dependence Logic}{Väänänen}
  \entry{2011}{Inclusion & Exclusion Logic}{Galliani}
  \entryshift{2012}{Independence Logic}{Grädel, Väänänen}{2mm}
  \flipentry{2011}{Modal Team Logic}{Müller}
  \entry{2016}{Multiteam Semantics}{Durand et al.}
  \flipentry{2016}{Prop. Team Logic}{Yang, Väänänen}
  \flipentryshift{2017}{Polyteam Semantics}{Hannula et al.}{2mm}
\end{timeline}
```

and produces the following timeline:

