chronology — a versatile timeline utility

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Version 2.0, released 20 August 2023

Abstract

A package that creates timelines featuring multiple events with per-day precision. Other features include relative positioning with unit specification, adjustable tick mark step size, and scaling to specified width.

Installation

To use this package, simply enter `\usepackage{chronology}` in the preamble. No other dependencies are required.

The chronology Command

Each individual timeline is enclosed within the *chronology* command:

\begin{chronology}[step]{year-start}{year-stop}{timeline-width}[scaling]<event commands>\end{chronology}

Where

- *step* refers to the number of years between year labels (default is 5).
- *year-start* is the earliest year on the timeline at the left end.
- *year-stop* is the latest year on the timeline at the right end.
- *timeline-width* is the total width of the timeline across the page.
- *scaling* permits size fine-tuning

Three commands are used within the *chronology* environment: *event*, *eventspan*, and *eventpoint*. For per-day precision, all these commands can utilize the optional *decimaldate* command to convert dates from dd-mm-yyyy format to decimal.
The **event** Command (legacy)

The legacy `event` command allows for backward compatibility and should permit the display of timelines from the previous release without modifications. The `begin date` argument is optional, which results in a circle to represent a single point in time. If both dates are entered, the result will be a span in time between those dates.

The `event` command is used as follows:

```
\event[begin-date]{end-date}{label}
```

With the `event` command, the timeline can be flipped with the labels beneath the timeline by placing an asterisk (*) in the main chronology command before the step argument:\footnote{This feature is not available with the commands `eventspan` and `eventpoint`.

```
\begin{chronology}*[5]{2009}{2020}{textwidth}
 \event[2010]{2012}{Event 1}
 \event[\decimaldate{20}{5}{2013}]{Event 2}
 \event[2017]{\decimaldate{22}{10}{2018}}{Event 3}
 \end{chronology}
```

```
\begin{chronology}*[5]{2009}{2020}{textwidth}
 \event[2010]{2012}{Event 1}
 \event[\decimaldate{20}{5}{2013}]{Event 2}
 \event[2017]{\decimaldate{22}{10}{2018}}{Event 3}
 \end{chronology}
```
The `eventspan` Command

Like the `event` command, `eventspan` creates a configurable band representing a span of time between two dates. However, it provides additional capabilities such as defining the thickness of the event bar, as well as color-coding and transparency, both of which help to distinguish between overlapping events.

\[ \text{eventspan\{begin-date\}{\text{end-date}\}{\text{label}\}[\text{fill}][\text{opacity}][\text{event-bar-thickness}][\text{bottom-label-indicator}] } \]

- `fill` defines the color of the event span (default is black).
- `opacity` determines the opacity of the span (default is .3).
- `event-bar-thickness` determines the thickness (height) of the span (default is .2).
- `bottom-label-indicator` is a flag that determines the placement of the label. It takes no specific value and has no default. Omitting this option entirely will place the label above the event at a 45 degree angle. If any value is given (including empty square brackets), the label will be placed beneath the timeline and centered under the span of that event.

The `eventpoint` Command

For any singular point in time, use the `eventpoint` command as follows:

\[ \text{eventpoint\{date\}{\text{label}\}[\text{fill}][\text{opacity}][\text{height}]}\]

- `fill` defines the color of the arrow (default is red).
- `opacity` determines the opacity of the arrow (default is 1, no transparency).
- `height` defines the vertical size of the arrow (default is .3).

Examples Using `eventspan` and `eventpoint`
Version History

- Version 1.1, uploaded to CTAN on 4 April 2013 by Levi Wiseman.
- Version 2.0, uploaded to CTAN on 20 August 2023 by Ben Armacost.