

L^AT_EX style file for drawing horizontal timelines

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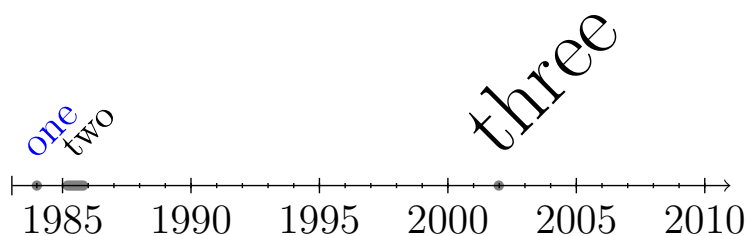
Contents

1	User documentation	2
1.1	Example 1	2
1.2	Example 2	2
1.3	Example 3	3
2	Package macros	4
2.1	Standard package loading	4
2.2	Defining counters and lengths	4
2.3	Defining TikZ styles for labels and events	4
3	Changelog	6

1 User documentation

1.1 Example 1

This output:

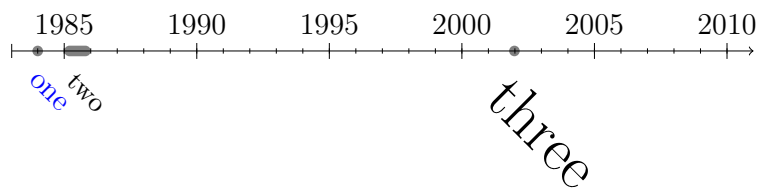


is produced by this input:

```
\begin{chronology}[5]{1983}{2010}{10cm}[7cm]
  \event{1984}{\color{blue}{one}}
  \event[1985]{1986}{\small{two}}
  \event{\decimaldate{25}{12}{2001}}{\huge{three}}
\end{chronology}
```

1.2 Example 2

Similarly, this output:



Is produced by this input:

```
\begin{chronology}*[5]{1983}{2010}{10cm}
```

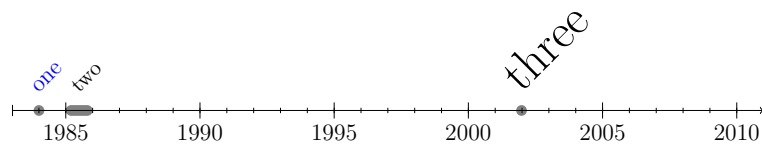
```

\event{1984}{\color{blue}{one}}
\event[1985]{1986}{\small{two}}
\event{\decimaldate{25}{12}{2001}}{\huge{three}}
\end{chronology}

```

1.3 Example 3

And finally, this output:



is produced by this input:

```

\begin{chronology}[5]{1983}{2010}{10cm}[13cm]
\event{1984}{\color{blue}{one}}
\event[1985]{1986}{\small{two}}
\event{\decimaldate{25}{12}{2001}}{\huge{three}}
\end{chronology}

```

2 Package macros

2.1 Standard package loading

```
1 \NeedsTeXFormat{LaTeX2e}%
2 \ProvidesPackage{chronology}[2015/03/27 v1.1.1 Horizontal timeline]%
3 \RequirePackage{calc}%
4 \RequirePackage{tikz}%
5 \RequirePackage{xparse}%
```

2.2 Defining counters and lengths

```
6 \newcounter{step}\newcounter{stepstart}\newcounter{stepstop}%
7 \newcounter{yearstart}\newcounter{yearstop}\newcounter{deltayears}%
8 \newlength{\xstart}\newlength{\xstop}%
9 \newlength{\distanceunit}\newlength{\timelinewidth}%
10 \newsavebox{\timelinebox}%
```

2.3 Defining TikZ styles for labels and events

```
11 \tikzset{%
12 ,chronevent/.style={fill=black,draw=none,opacity=0.5}
13 ,chronlabel/.style={opacity=1}
14 ,chrontickslabel/.style={chronlabel}
15 ,chroneventlabel/.style={chronlabel}
16 ,eventlabel/.style={chroneventlabel,anchor=south west,yshift=.2\distanceunit,rotate=45}
17 ,flippedeventlabel/.style={chroneventlabel,anchor=north west,yshift=-.2\distanceunit,rotate=45}
18 }
```

For compatibility with babel. Handling of active characters in TikZ.

```
19 \tikzset{
20 handle active characters in code,
21 handle active characters in nodes
22 }
23 \newif\ifchronology@star%
24 \newenvironment{chronology}{%
25 \@ifstar{\chronology@startrue\chronology@i*}{\chronology@starfalse\chronology@i*}%
26 }{%
27 \end{tikzpicture}%
28 \end{lrbox}%
29 \raisebox{2ex}{\resizebox{\timelinewidth}{!}{\usebox{\timelinebox}}}%
30 }%
```

```

31 \def\chronology@i*{%
32 \@ifnextchar[{\chronology@ii*}{\chronology@ii*[{5}]}%
33 }%
34 \def\chronology@ii*[#1]#2#3#4{%
35 \@ifnextchar[{\chronology@iii*[{#1}]{#2}{#3}{#4}]{\chronology@iii*[{#1}]{#2}{#3}{#4}[%
36 }%
37 \def\chronology@iii*[#1]#2#3#4[#5]{%
38 \newif\ifflipped%
39 \ifchronology@star%
40 \flippedtrue%
41 \else%
42 \flippedfalse%
43 \fi%
44 \setcounter{step}{#1}%
45 \setcounter{yearstart}{#2}\setcounter{yearstop}{#3}%
46 \setcounter{deltayears}{\theyearstop-\theyearstart}%
47 \setlength{\distanceunit}{#5/\thedeltayears}%
48 \setlength{\timelinewidth}{#4}%
49 \pgfmathsetcounter{stepstart}{\theyearstart+\thestep-mod(\theyearstart,\thestep)}%
50 \pgfmathsetcounter{stepstop}{\theyearstop-mod(\theyearstop,\thestep)}%
51 \addtocounter{step}{\thestepstart}%
52 \begin{lrbox}{\timelinebox}%
53 \begin{tikzpicture}[baseline={(current bounding box.north)}]%
54 \draw [|->] (0,0) -- (\thedeltayears*\distanceunit+\distanceunit, 0);%
55 \foreach \x in {1,...,\thedeltayears}%
56 \draw[xshift=\x*\distanceunit] (0,-.1\distanceunit) -- (0,.1\distanceunit);%
57 \addtocounter{deltayears}{1}%
58 \foreach \x in {\thestepstart,\thestep,...,\thestepstop}{%
59 \pgfmathsetlength\xstop{(\x-\theyearstart)*\distanceunit}%
60 \draw[xshift=\xstop] (0,-.3\distanceunit) -- (0,.3\distanceunit);%
61 \ifflipped%
62 \node[chrontickslabel] at (\xstop,0) [above=.2\distanceunit] {\x};%
63 \else%
64 \node[chrontickslabel] at (\xstop,0) [below=.2\distanceunit] {\x};%
65 \fi%
66 }%
67 }%
68 \DeclareDocumentCommand \event {o m m}{%
69 \pgfmathsetlength\xstop{(#2-\theyearstart)*\distanceunit}%
70 \IfNoValueTF {#1} {%

```

```

71 \ifflipped%
72 \draw[chronevent]%
73 (\xstop, 0) circle (.2\distanceunit)%
74 node[flippedeventlabel] {#3};%
75 \else%
76 \draw[chronevent]%
77 (\xstop, 0) circle (.2\distanceunit)%
78 node[eventlabel] {#3};%
79 \fi%
80 }{%
81 \pgfmathsetlength\xstart{(#1-\theyearstart)*\distanceunit}%
82 \ifflipped%
83 \draw[chronevent,rounded corners=.2\distanceunit]%
84 (\xstart,-.2\distanceunit) rectangle%
85 node[flippedeventlabel] {#3} (\xstop,.2\distanceunit);%
86 \else%
87 \draw[chronevent,rounded corners=.2\distanceunit]%
88 (\xstart,-.2\distanceunit) rectangle%
89 node[eventlabel] {#3} (\xstop,.2\distanceunit);%
90 \fi%
91 }%
92 }
93 \newcommand{\decimaldate}[3]{(#1-1)/31/12+(#2-1)/12+#3}%

```

3 Changelog

2023-08-08 Dominik forked the lwiseman/chronology GitHub repo and set up this documentation;

2023-08-08 Dominik merged the changes of Alexander Klemd of 2022-12-19 that “Rename variable ‘unit’ to ‘distanceunit’ (for compatibility with package: siunitx)” into the wujastyk branch

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

Symbols	E	R
\@ifnextchar . 32, 35	\else ... 41, 63, 75, 86	\raisebox 29
\@ifstar 25	\end 27, 28	\RequirePackage 3, 4, 5
	\event 68	\resizebox 29
A	F	S
\addtocounter . 51, 57	\fi 43, 65, 79, 90	\setcounter 44, 45, 46
B	\flippedfalse 42	\setlength ... 47, 48
\begin 52, 53	\flippedtrue 40	
	\foreach 55, 58	
C	I	T
\chronology@i . 25, 31	\ifchronology@star	\thedeltayears 47, 54, 55
\chronology@ii 32, 34 23, 39	\thestep ... 49, 50, 58
\chronology@iii 35, 37	\ifflipped 38, 61, 71, 82	\thestepstart . 51, 58
\chronology@starfalse	\IfNoValueTF 70	\thestepstop 58
..... 25		\theyearstart 46, 49, 59, 69, 81
\chronology@startrue		\theyearstop . 46, 50
..... 25		\tikzset 11, 19
D		\timelinebox 10, 29, 52
\decimaldate 93		\timelinewidth 9, 29, 48
\DeclareDocumentCommand		
..... 68		
\def 31, 34, 37		
\distanceunit		
..... 9, 16, 17,		
47, 54, 56, 59,		
60, 62, 64, 69,		
73, 77, 81, 83,		
84, 85, 87, 88, 89		
\draw 54, 56,		
60, 72, 76, 83, 87		
	N	U
	\NeedsTeXFormat ... 1	\usebox 29
	\newcommand 93	
	\newcounter 6, 7	
	\newenvironment .. 24	
	\newif 23, 38	
	\newlength 8, 9	
	\newsavebox 10	
	\node 62, 64	
	P	X
	\pgfmathsetcounter	\x 55, 56, 58, 59, 62, 64
 49, 50	\xstart .. 8, 81, 84, 88
	\pgfmathsetlength	\xstop 8,
 59, 69, 81	59, 60, 62, 64,
	\ProvidesPackage .. 2	69, 73, 77, 85, 89