

Chronosys
Draw time-lines diagrams !

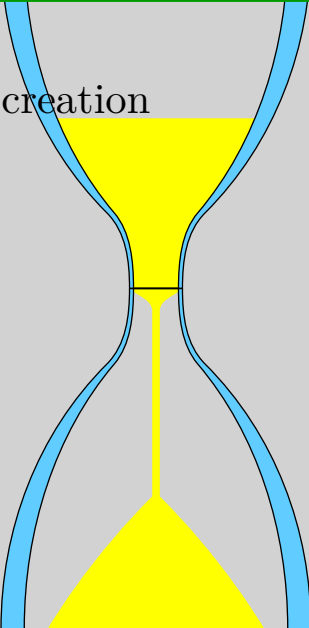
1982

2050



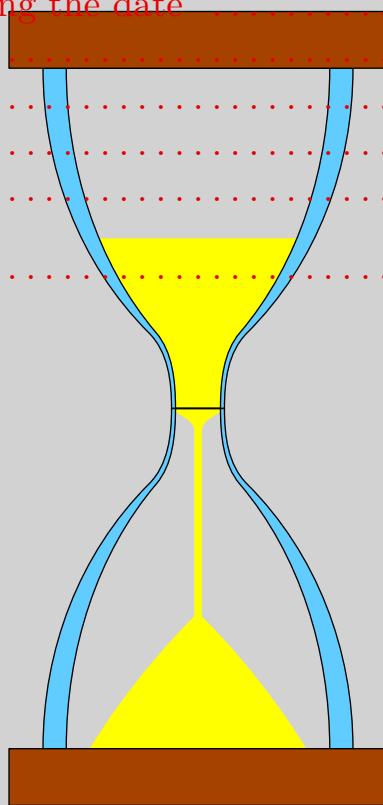
2011

chronosys's creation



Contents

1	Introduction	2
2	First use	3
2.1	Main fonction: <code>\startchronology</code>	3
2.2	Events: <code>\chronoevent</code>	3
2.3	Periods: <code>\chronoperiode</code>	4
3	Time-lines' customization	6
3.1	<code>\startchronology</code>	6
3.1.1	Example	6
3.1.2	Different options	6
3.1.3	Summary	8
3.2	<code>\chronoperiode</code>	8
3.2.1	Example	8
3.2.2	Different options	9
3.2.3	Summary	10
3.3	<code>\chronoevent</code>	10
3.3.1	A new way for specifying the date	10
3.3.2	Example	11
3.3.3	Different options	12
3.3.4	Summary	14
3.4	Permanent changes	15
4	Index	16



1 Introduction

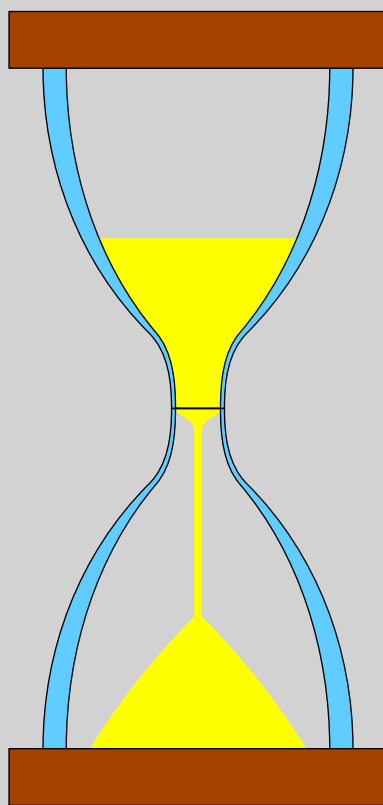
Chronosys is distributed under the LaTeX Project Public License. It uses the `tikz` package for drawing the time-lines.

This package is version 1.01, another versions might be created later.

It is recommended not to load the `color.tex` file if you use plain \TeX .

You can load `chronosys` by :

- ▷ `\usemodule[chronosys]` in $\text{Con}\text{\TeX}$ t.
- ▷ `\usepackage{chronosys}` in $\text{L}^{\text{A}}\text{\TeX}$.
- ▷ `\input chronosys` in plain \TeX .



2 First use

2.1 Main fonction: `\startchronology`

The control sequence `\startchronology` is the first one you need to know.¹ : it starts the chronological frieze.

The next one is `\stopchronology`², it ends the time-line. Let's have a look on the result :

```
\startchronology
\stopchronology
```

0

2011



You can see the time-line is on all the page's width, furthermore it starts at 0 and ends at the current year 2011 when this document was compiled. **Chronosys** will compare these years with the events and periods you will give him (see **2.2** and **2.3**).

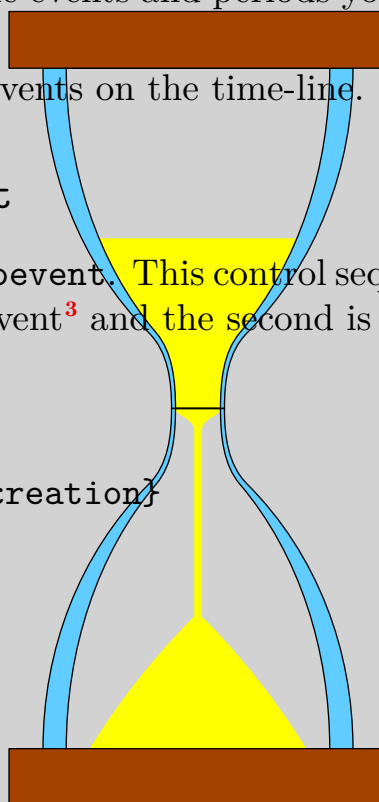
Now let's learn how to add events on the time-line.

2.2 Events: `\chronevent`

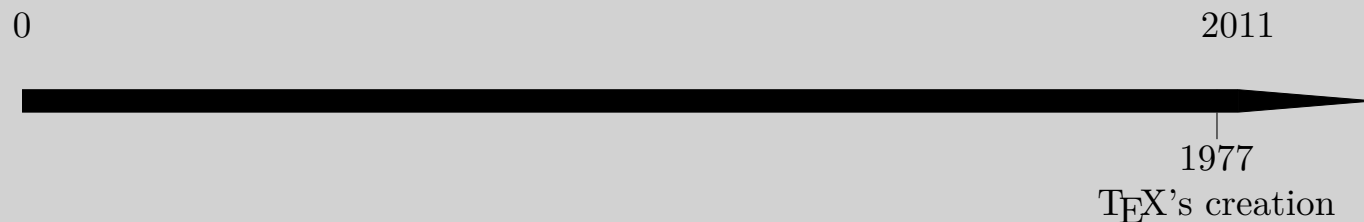
You can add events with `\chronevent`. This control sequence needs two arguments: the first one is the date of the event³ and the second is the label of this event.

For example:

```
\startchronology
\chronevent{1977}{\TeX's creation}
\stopchronology
```



¹ There are `\begin {chronology}` and `\end {chronology}` for L^AT_EX
² or `\end {chronology}`
³ you can see further to see another way of specifying the date



The event appears between 0 et 2011, proportionally with his gap with 0. You can also give several events:

```
\startchronology
\chronevent{476}{Fall of the Roman empire}
\chronevent{1492}{Discovery of America}
\chronevent{1969}{first steps on the Moon}
\stopchronology
```



N.B.: the font size has been reduced to avoid label to overlap; a best way will be given further (see **3.3.4**).

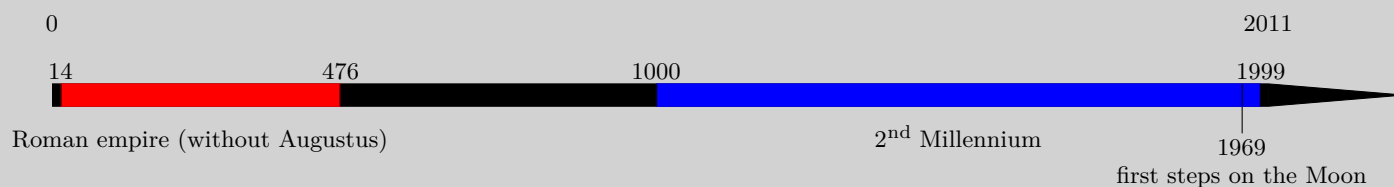
Chronosys won't generate any error if the event's date is out of the starting year and ending year, however it will be ignored. The way of customize the time-line, especially the starting year and ending year, will be seen further(see **3.1.3**).

2.3 Periods: `\chronoperiode`

You can also add one period (or several⁴) on the frieze with `\chronoperiode`.

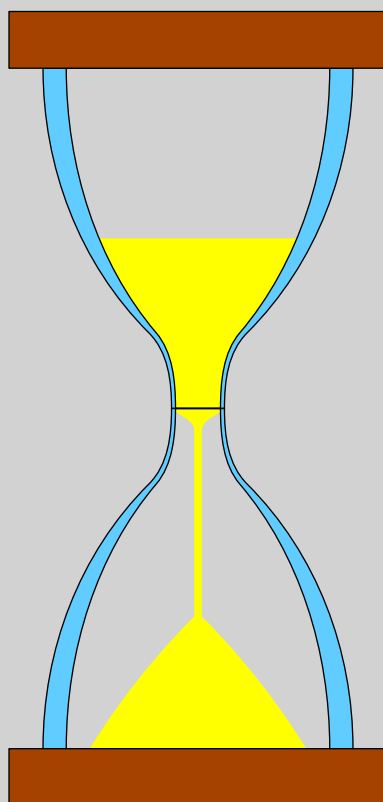
```
\startchronology
\chronoperiode{1000}{1999}{2\high{nd} Millennium}
\chronoperiode{476}{1453}{Eastern Roman Empire}
\chronevent{1969}{first steps on the Moon}
\stopchronology
```

⁴ If two periods are overlapping, the last one will overlap the other



N.B.: on the period from 1000 to 1999, blue on the time-line, we can now see the vertical straight under the frieze. You can disable it (see [3.3.4](#)), but if you want it you should place the events after the periods.

The period appears automatically with colour, and the dates are also visible (see [3.2.3](#) to disable them) and the label. The periods can be automatically coloured in 5 colours : blue, red, cyan, purple and yellow, except if the colour is identical to the frieze's one. Of course you can choose the colour of the period (see [3.2.3](#)).



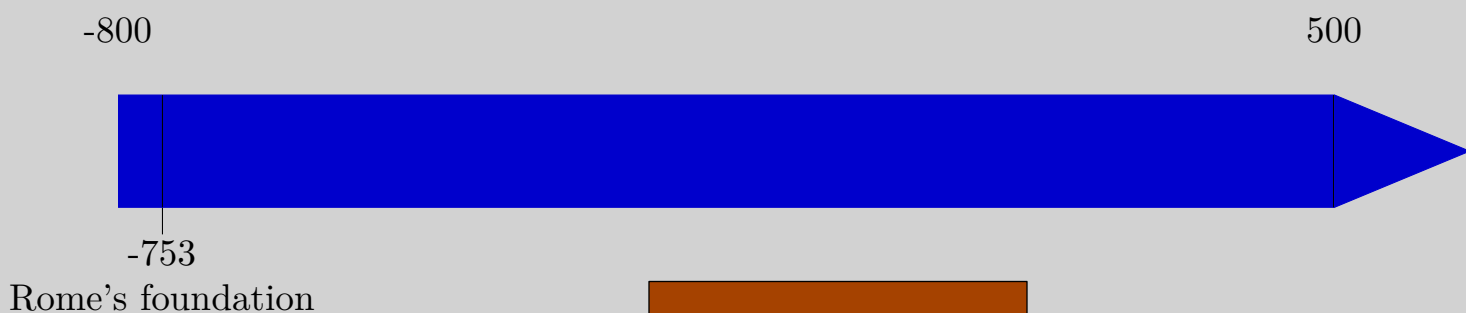
3 Time-lines' customization

3.1 `\startchronology`

3.1.1 Example

`\startchronology` can have an optional argument in brackets. For example:

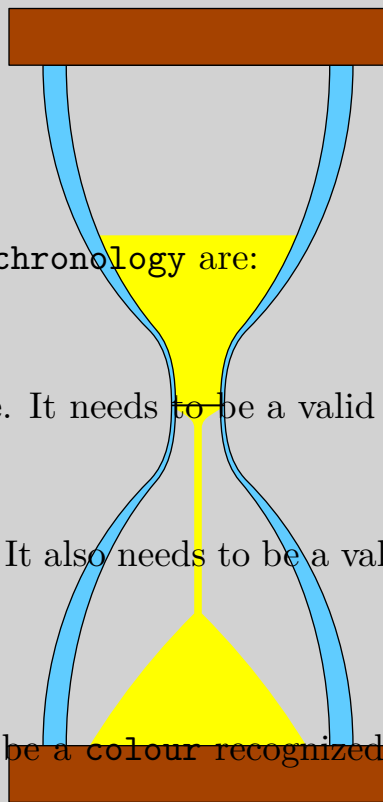
```
\startchronology
[startyear=-800,stopyear=500,color=darkblue,height=7ex,width=\hsize]
\chronevent{-753}{Rome's foundation}
\stopchronology
```



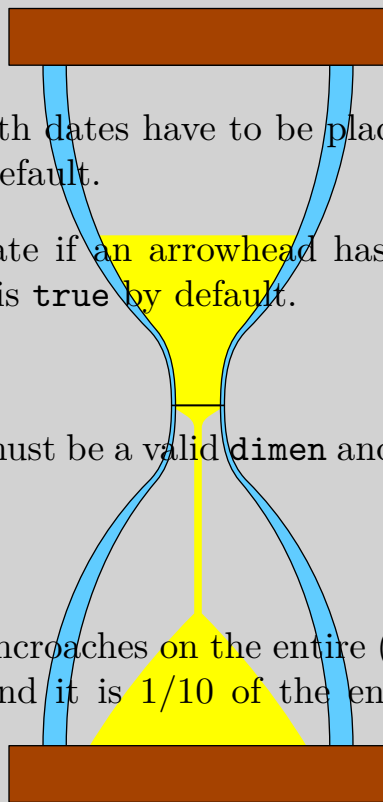
3.1.2 Different options

The different options of `\startchronology` are:

- **startyear :**
starting year of the time-line. It needs to be a valid **number**. It is by default 0
- **stopyear :**
ending year of the time-line. It also needs to be a valid **number**. It is the current year by default.
- **color :**
colour of the frieze. It must be a colour recognized by the **tikz** package. It is black by default.
- **height :**
height of the frieze. It must be a valid **dimen** and it is 0.7pc by default.



- **width :**
width of the frieze. It must be a valid **dimen** and it is `\hsize`⁵ by default.
- **datesstyle :**
style to apply to dates. It must be a **control sequence** (it can take one argument, which will be the dates), is empty by default.
- **dateselevation :**
height of the dates from the time-line, it must be a valid **dimen** and it is 20pt par by default.
- **startdate :**
boolean which indicate if the starting year has to be placed. It must be either **true** or **false** and it is **true** by default.
- **stopdate :**
boolean which indicate if the ending year has to be placed. It must be either **true** or **false** and it is **true** by default.
- **dates :**
boolean which indicate if both dates have to be placed. It must be either **true** or **false** and it is **true** by default.
- **arrow :**boolean which indicate if an **arrowhead** has to be placed. It must be either **true** or **false** and it is **true** by default.
- **arrowheight :**
height of the arrowhead. It must be a valid **dimen** and it is identical to the height of the time-line by default.
- **arrowwidth :**
width of the arrowhead. It encroaches on the entire (**height**) width of the frieze. It must be a valid **dimen** and it is 1/10 of the entire width of the time-line (**width**) by default.



⁵ `\textwidth` in L^AT_EX

- `arrowcolor` :
colour of the arrowhead. It must be a `colour` recognized by the `tikz` package. It is identical to the colour of the frieze by default.
- `box` :
boolean which indicates if the time-line should be passed back with a black line. It must be either `true` or `false` and it is `false` by default.

3.1.3 Summary

	\startchronology [...=...]	
startyear	=	<number>
stopyear	=	<number>
color	=	<colour>
height	=	<dimen>
width	=	<dimen>
datesstyle	=	<control sequence> or <control sequence#1>
dateselevation	=	<dimen>
startdate	=	<true> or <false>
stopdate	=	<true> or <false>
dates	=	<true> or <false>
arrow	=	<true> or <false>
arrowheight	=	<dimen>
arrowwidth	=	<dimen>
arrowcolor	=	<colour>
box	=	<true> or <false>

Table 3.1 `startchronology`’s options

3.2 \chronoperiode

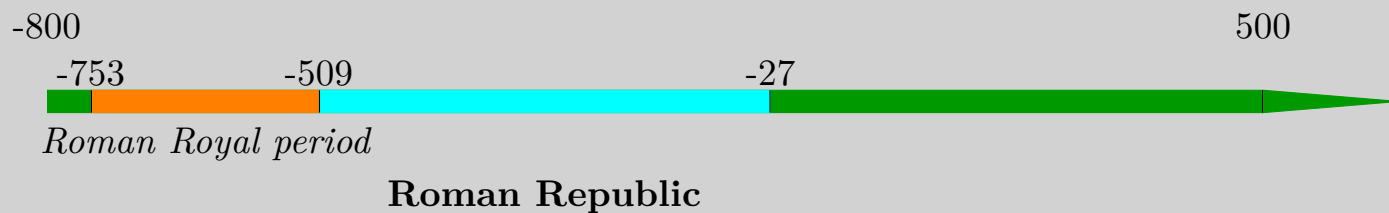
3.2.1 Example

`\chronoperiode` can have an optional argument for the options’ customization.

```

\startchronology[startyear=-800,stopyear=500,color=darkgreen]
\chronoperiode[color=orange,stopdate=false,textstyle=\it]
{-753}{-509}{Roman Royal period}
\chronoperiode[color=cyan,textstyle=\bf,textdepth=35pt]
{-509}{-27}{Roman Republic}
\stopchronology

```



3.2.2 Different options

The different options of `\chronoperiode` are:

- `startdate` :

boolean. It indicate if the starting year has to be placed, and must be either `true` or `false`. It is `true` by default.

- `stopdate` :

boolean. It indicate if the ending year has to be placed, and must be either `true` or `false`. It is `true` by default.

- `datestrue` :

boolean. It indicate if both dates have to be placed, and must be either `true` or `false`. It is `true` by default.

- `datesstyle` :

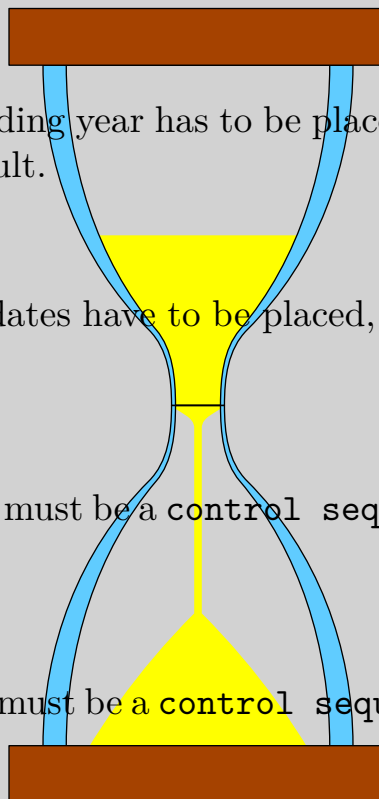
style to apply to the dates. It must be a `control sequence` ou `control sequence#1` and is empty by default.

- `textstyle` :

style to apply to the label. It must be a `control sequence` ou `control sequence#1` and is empty by default.

- `color` :

colour of the period on the frieze. It must be a colour recognized by `tikz`. It alternates between blue, red, cyan, purple and yellow by default.



- `dateselevation` :
height of the dates from the frieze. It must be a valid `dimen` and it is 0pt by default.
- `dateselevation` :
depth of the label from the frieze. It must be a valid `dimen` and it is 15pt by default.

3.2.3 Summary

\chronoperiode [...=...]{...}{...}{...}		
<code>startdate</code>	=	<true> or <false>
<code>stopdate</code>	=	<true> or <false>
<code>dates</code>	=	<true> or <false>
<code>datesstyle</code>	=	<control sequence> or <control sequence#1>
<code>textstyle</code>	=	<control sequence> or <control sequence#1>
<code>color</code>	=	<colour>
<code>dateselevation</code>	=	<dimen>
<code>textdepth</code>	=	<dimen>

Table 3.2 `chronoperiode`'s options

3.3 \chronoevent

3.3.1 A new way for specifying the date

You can specify with more precision the date with `\chronoevent`. We saw that typing `\chronoevent{-44}{Assassination of Caesar}` specified the year of the event, now we will see the way of specifying the month and the day. You have to type <day number>/<number of the month>/year, only specifying the year is compulsory.

You can give only the year as we saw before, the number of the month and the year or the day number and the number of the month and the year. The number of the month is automatically converted to the name of the month (in french by default). You can disable this conversion (see 3.3.4). The control sequence of conversion is:

```
\def\chron@selectmonth#1{\ifcase#1\or janvier\or f\evrier\or
```

```

mars\or avril\or mai\or juin\or juillet\or ao\^ut\or septembre\or
octobre\or novembre\or d\'ecembre\fi}

```

To change the language, you only need to redefine the control sequence, for example for english as:

```

\def\chron@selectmonth#1{\ifcase#1\or January\or February\or
March\or April\or May\or June\or July\or August\or September\or
October\or November\or December\fi}

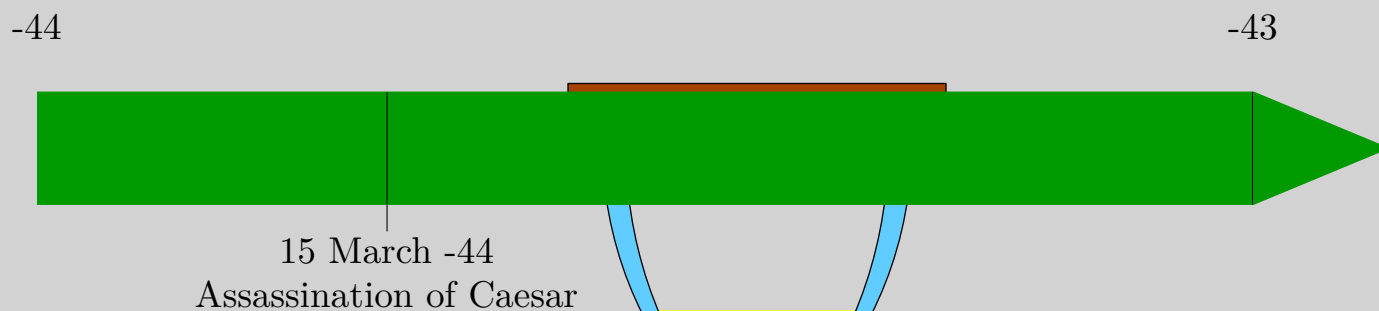
```

For example,

```

\catcode`\@=11
\def\chron@selectmonth#1{\ifcase#1\or January\or February\or
March\or April\or May\or June\or July\or August\or September\or
October\or November\or December\fi}
\startchronology[startyear=-44,stopyear=-43,color=darkgreen,height=7ex]
\chronevent{15/03/-44}{Assassination of Caesar}
\stopchronology

```



Furthermore, `\chronevent` can also have an optional argument for customization.

3.3.2 Example

```

\def\MyIcon{{\starttikzpicture \filldraw
[color=orange](0,0)--(0,5pt)--(5pt,5pt)
--(5pt,0)--cycle;\stoptikzpicture}}

\catcode`\@=11
\def\chron@selectmonth#1{\ifcase#1\or January\or February\or
March\or April\or May\or June\or July\or August\or September\or
October\or November\or December\fi}

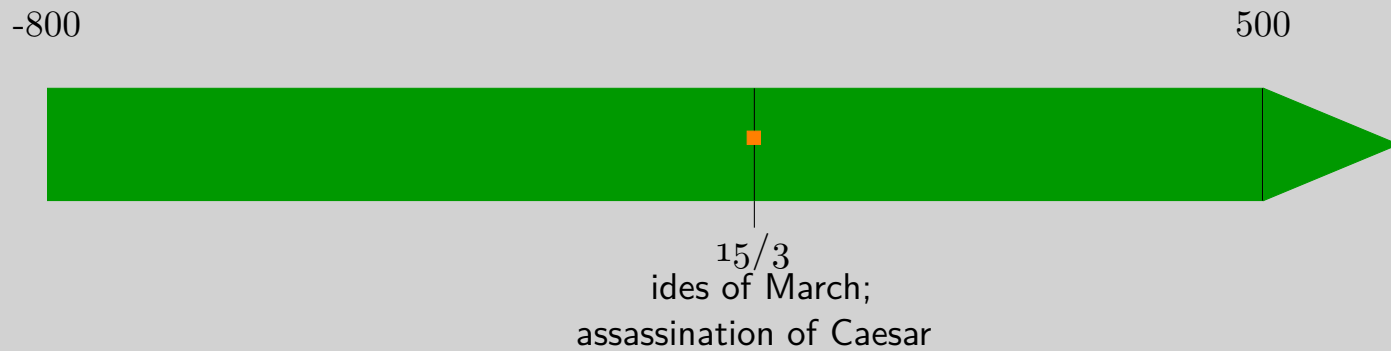
\startchronology[startyear=-800,stopyear=500,

```

```

color=darkgreen,height=7ex]
\chronevent[textstyle={\switchtobodyfont[sansserif]},
datesstyle=\os,datesseparation=/,conversionmonth=false,
icon=\MyIcon,year=false]{15/3/-44}
{\vbox{\hbox{\qqquad ides of March;}\hbox{assassination of Caesar}}}}
\stopchronology

```



3.3.3 Different options

Here are the different possible options.

- **barre :**

boolean which indicate if a vertical straight has to be placed on the frieze at the event position. It must be either **true** or **false**. It is **true** by default.

- **date :**

boolean which indicate if the date of the event has to be placed. It must be either **true** or **false**. It is **true** by default.

- **conversionmonth :**

boolean which indicate if the number of the month has to be converted to the name month. It must be either **true** or **false**. It is **true** by default.

- **mark :**

boolean which indicate if a vertical straight has to be placed under the time-line at the event position. It must be either **true** or **false**. It is **true** by default.

- **year :**

boolean which indicate if the year of the event has to be placed. It must be either **true** or **false**. It is **true** by default.

- **icon :**

symbol to add on the frieze at the event position. It can be a control sequence or some text, and it is empty by default.

- **markdepth :**

depth of the label of the event and of the vertical straight under the frieze. It must be a valid **dimen** and it is 10pt by default.

- **iconheight :**

height of the icon on the time-line. It must be a valid **dimen** and it is half of the height of the frieze by default.

- **textstyle :**

style to apply to the label. It must be a **control sequence** or **control sequence#1**.

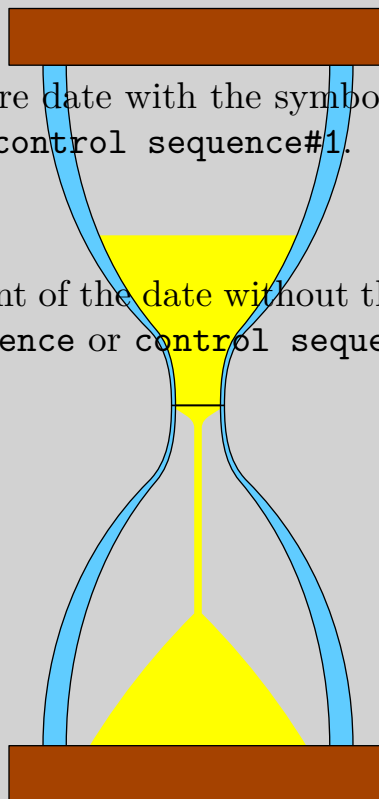
- **datesseparation :** symbol of separation of each element of the date. It can be a control sequence or some text and is a space by default.

- **datestyle :**

style to apply to the entire date with the symbols of separation. It must be a **control sequence** or **control sequence#1**.

- **datesstyle :**

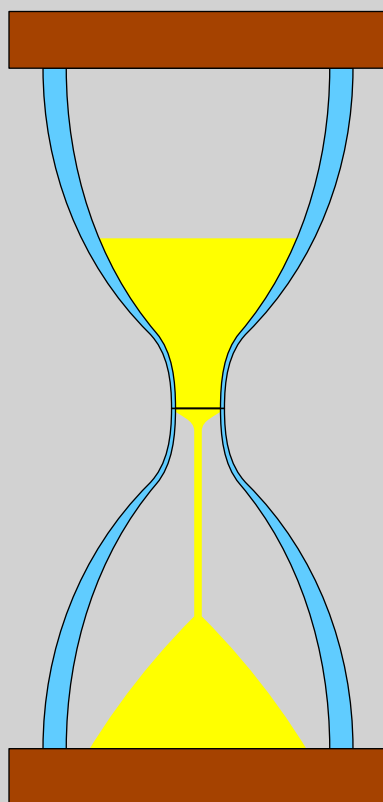
style to apply each element of the **date** without the symbols of separation. It must be a **control sequence** or **control sequence#1**.



3.3.4 Summary

	<code>\chronevent</code>	<code>[...=...]{...}{...}</code>
<code>barre</code>	=	<code><true></code> or <code><false></code>
<code>date</code>	=	<code><true></code> or <code><false></code>
<code>conversionmonth</code>	=	<code><true></code> or <code><false></code>
<code>mark</code>	=	<code><true></code> or <code><false></code>
<code>icon</code>	=	<code><text></code> or <code><control sequence></code> ...
<code>datesseparation</code>	=	<code><text></code> or <code><control sequence></code> ...
<code>markdepth</code>	=	<code><dimen></code>
<code>iconheight</code>	=	<code><dimen></code>
<code>textstyle</code>	=	<code><control sequence></code> or <code><control sequence#1></code>
<code>datestyle</code>	=	<code><control sequence></code> or <code><control sequence#1></code>
<code>datesstyle</code>	=	<code><control sequence></code> or <code><control sequence#1></code>

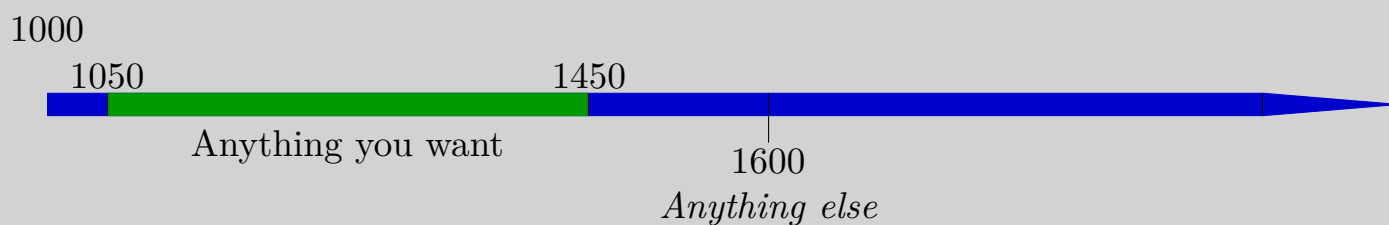
Table 3.3 `chronevent`'s options



3.4 Permanent changes

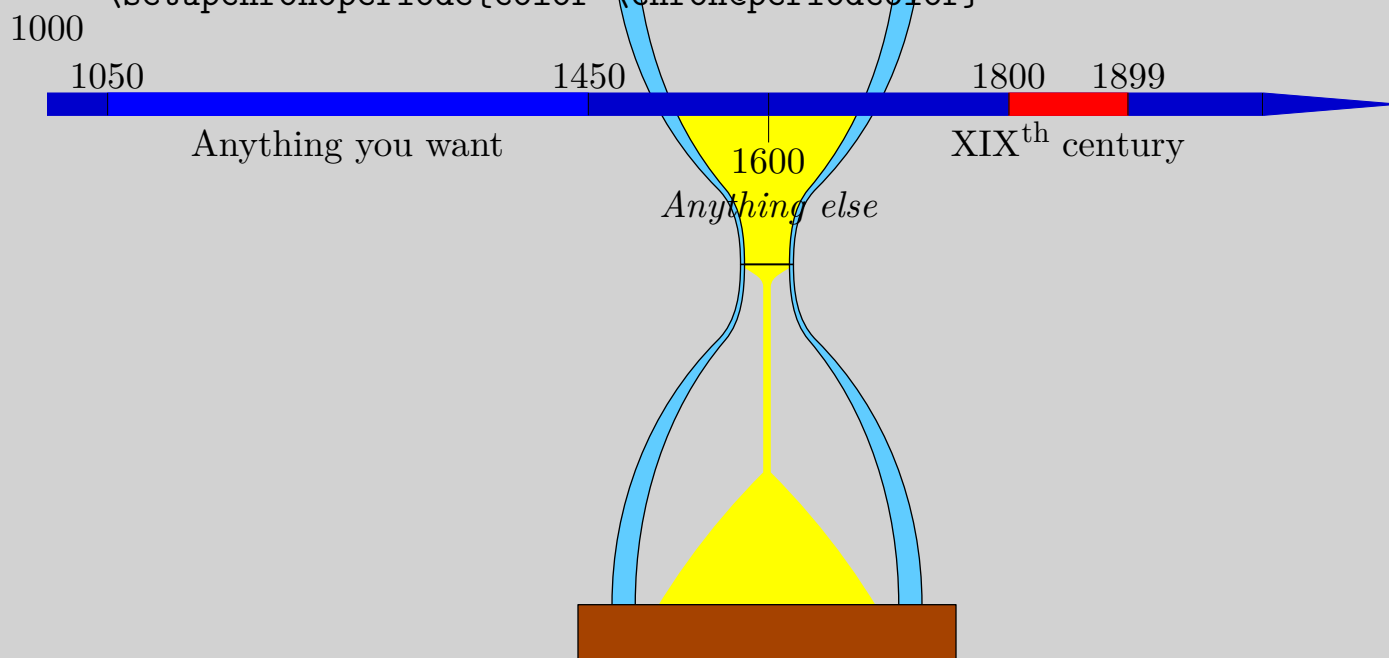
You can apply changes on default values with using `\setupchronology`, `\setupchronoevent` and `\setupchronoperiode`. You use the same name for each option you want to change. For example,

```
\setupchronology{startyear=1000,color=darkblue,stopdate=false}
\setupchronoperiode{color=darkgreen}
\setupchronoevent{textstyle=\it}
\startchronology
\chronoperiode{1050}{1450}{Anything you want}
\chronoevent{1600}{Anything else}
\chronoperiode{1800}{1899}{XIXth century}
\stopchronology
```



N.B.: if you want to reapply the automatic colour's alternation of the periods, use

```
\setupchronoperiode{color=\chron@periodcolor}
```



4 Index

a

arrow 7
arrowcolor 8
arrowheight 7
arrowwidth 7

b

barre 12
box 8

c

chronoevent 3, 10, 12
chronoperiode 9
chronperiode 4
color 6, 9
conversionmonth 12

d

date 12
dates 7, 9
dateselevation 7, 10
datesseparation 13
datesstyle 9, 13
datessyle 7
datestyle 13

h

height 6

i

icon 13
iconheight 13

m

mark 12
markdepth 13

s

setupchronoevent 15
setupchronology 15
setupchronoperiode 15
startchronology 3, 6
startdate 7, 9
startyear 6
stopchronology 3
stopdate 7, 9
stopyear 6

t

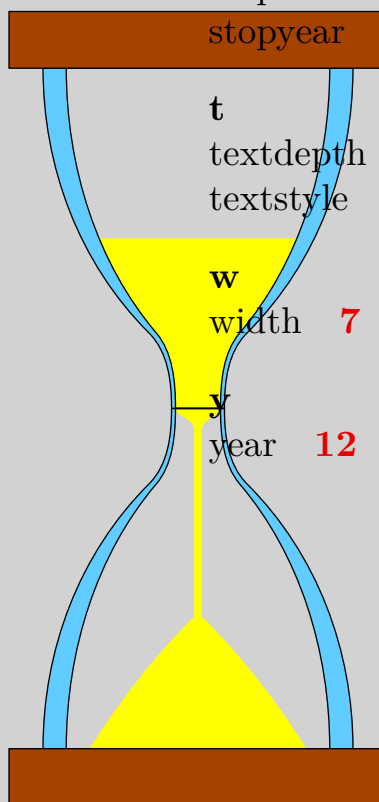
textdepth 10
textstyle 9, 13

w

width 7

y

year 12



[Go to table of contents](#)

[Exit](#)

