

# ChronochRt

Import/create

## From file



```
import_chron(path = ...)
(Import of Excel files
requires the package „readxl“)
```

## From data set

Location	Title	From	To	Sub	Compare	...
A	1	-200	200	1	FALSE	...
A	1a	-200	0	2	FALSE	...
A	1b	0	200	2	FALSE	...
A	C	-100	100	1	TRUE	...

```
convert_to_chron(data = ...)
```

## From direct input

```
add_chron(..., new = TRUE)
```

## The chronological data set

region	name	start	end	level	add	...
A	1	-200	200	1	FALSE	...
A	1a	-200	0	2	FALSE	...
A	1b	0	200	2	FALSE	...
A	C	-100	100	1	TRUE	...

## Create labels

```
add_label_text(..., new = TRUE)
```

region	year	position	label	...
A	-150	0.9	Flood	...
A	50	1.9	Earthquake	...

```
add_label_image(..., new = TRUE)
```

region	year	position	image_path	...
A	-150	0.9	https://www...	...

Modify

## Add chron

```
add_chron(data = data, ...,
new = FALSE)
```

region	name	start	end	level	add	...
A	1	-200	200	1	FALSE	...
A	1a	-200	0	2	FALSE	...
A	1b	0	200	2	FALSE	...
A	C	-100	100	1	TRUE	...
B	1	-150	200	1	FALSE	...

## Arrange regions in chart

```
arrange_regions(data = data,
regions = c("B", "A"))
```

## Create labels

```
add_label_text(..., new = FALSE)
```

region	year	position	label	...
A	-150	0.9	Flood	...
A	50	1.9	Earthquake	...

```
add_label_image(..., new = FALSE)
```

region	year	position	image_path	...
A	-150	0.9	https://www...	...
A	50	1.9	image.png	...

## Chrons in ChronochRt

Chron = chronological unit

Essential information:

```
region name start end level add
```

Additional information:

```
... e.g. custom positions of the names
```

## Unclear start/end

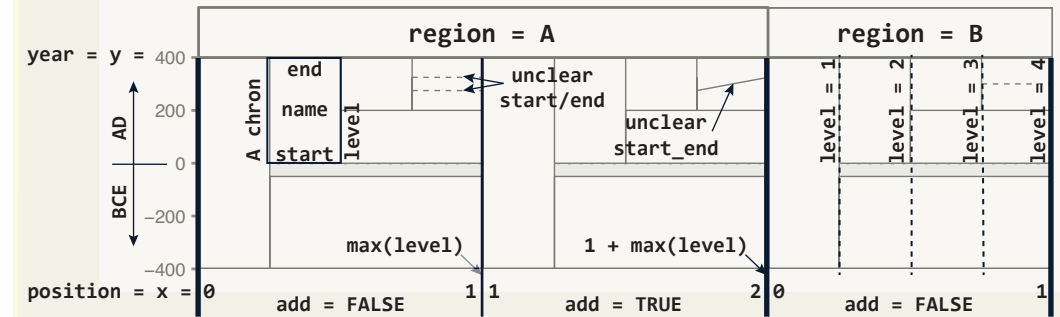
Indicated with / or \_ :

“Year 1/Year 2“ for a period

“Year/Year“ for a specific date

The order of the years must be the same for neighbouring chrons!

## The chronological chart



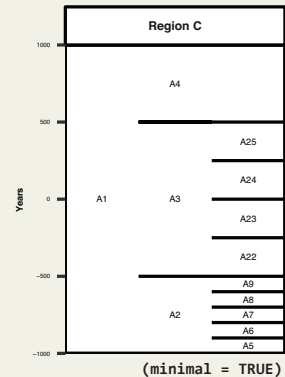
## Using geoms (requires ggplot2)

	Make	chart	text label	image label
	with	geom_chronochRt()	geom_text()	geom_chronochRtImage()
Required aesthetics	region		x	x
	name/label		y	y
Options	start		label	image_path
	end			
	level			
	add			
	Options	aes: name_x, name_y	from ggplot2,	aes: height, width
		year_lim	see ?geom_text()	
		minimal		

Code template

```
ggplot() +
  geom_chronochRt(data = data, aes(...)) +
  geom_text(data = text, aes(...)) +
  geom_chronochRtImage(data = image, aes(...)) +
  scale_x_continuous(expand = c(0,0)) +
  scale_y_continuous(expand = c(0,0)) +
  facet_grid(cols = vars(region),
             scales = "free_x", space = "free_x") +
  theme_chronochRt()
```

(required to reproduce design of examples)

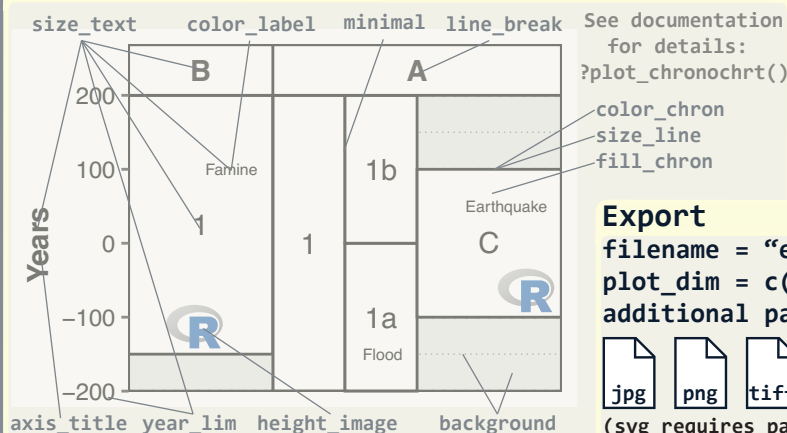


(minimal = TRUE)

Plot & Export

## plot\_chronochRt(data, labels\_text, labels\_image, ...)

### Customize



### Export

```
filename = "example.pdf"
plot_dim = c(width, height, unit)
additional parameters, e.g. dpi
```



(svg requires package „svglite“)