Package: timeLineGraphics (via r-universe)

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Version 1.0

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Title HTML with Horizontal Strips Symbolizing Events in a Person's Life

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Depends R (>= 4.2.0)

Imports magick, berryFunctions, graphics, R2HTML, pdftools

Description Produce an HTML page containing horizontal strips that symbolize events in a person's lsife. Since this is entirely a visualization, the image <https://barryzee.github.io/henry-timeline/henry.html> will show the basic use to show a timeline of events. The image <https://barryzee.github.io/vermeer/cssOverlay.html> shows how to correlate two timelines of events. A brief description is available at <https://barryzee.github.io/timeLineGraphics_manuscript/golden_age.html>.

License GPL (>= 2)

Encoding UTF-8

VignetteBuilder knitr

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

RoxygenNote 7.2.2

Config/testthat/edition 3

NeedsCompilation no

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Repository https://barryzee.r-universe.dev

RemoteUrl https://github.com/cran/timeLineGraphics

RemoteRef HEAD

RemoteSha 645f701b2d85850dea36933d5dfa5d1db2a57edb

Contents

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aspectRatio   *aspectRatio*

Description

compute ratio needed for maintaining proper aspect ratio in graph overlay image

Usage

```
aspectRatio(rim)
```

Arguments

rim   is rasterized version of im

Value

numerical ratio needed for maintaining proper aspect ratio in graph overlay image

Examples

```
aspectRatio(as.raster(magick::image_read(example2()[[1]]$pics[[1]])))
```

---

backFitRaster   *backFitRaster*

Description

given a maximum vertical size in inches that is allowable, find x size of raster image

Usage

```
backFitRaster(y2x, maxy, ymargin)
```

example2 3

Arguments

y2x	is original aspect ratio of image
maxy	is max vertical size in inches
ymargin	is fraction of maxy to leave as top and bottom margin

Details

graph units<-yinch(y in inches)

Value

numerical x size of raster image

Examples

```
backFitRaster(1.333,10,.05)
```

---

example2	*example2*

Description

generate structured list for mockup example

Usage

```
example2()
```

Value

structured list for mockup example

---

nextMultiple10	*nextMultiple10*

Description

find next higher multiple of 10

Usage

```
nextMultiple10(x)
```

Arguments

x	integer

Value

integer next higher multiple of 10

Examples

```
nextMultiple10(1732)
nextMultiple10(1699)
```

---

roy *roy*

Description

determine the range of years

Usage

```
roy(l)
```

Arguments

l   is a list

- character string $name the person's name
- integer $start starting year
- integer $end ending year
- character string $color background color for the horizontal line
- list of overlay pictures $pics, each entry contains
    - character string path name for a picture
    - integer year for placement of left edge of picture

Value

integer vector containing the range of years

Examples

```
roy(example2())
```

---

stripPlot   *stripPlot*

Description

iteratively plot each horizontal strip

Usage

```
stripPlot(l, ht, vfactor, ymargin, nameCEX, leftOver)
```

Arguments

l	is a list

- character string $name the person's name
- integer $start starting year
- integer $end ending year
- character string $color background color for the horizontal line
- list of overlay pictures $pics, each entry contains
  - character string path name for a picture
  - integer year for placement of left edge of picture

ht	is total height of entire graph
vfactor	is height of a horizontal strip
ymargin	is fraction of maxy to leave as top and bottom margin
nameCEX	control size of font in text() to display names associated with each horizontal strip
leftOver	if TRUE then pictures that do not fit in horizontal strip are placed to left of strip rather than omitted

Value

No return value, called for side effects

---

timeLineGraphics   *timeLineGraphics*

Description

This function is the driver that organizes the production of an html page containing horizontal strips that symbolize events in a person's life.

Usage

```
timeLineGraphics(
  l,
  vfactor = 3,
  abline = TRUE,
  bkgRBG = c(13, 65, 130),
  ablineRBG = c(26, 85, 145),
  pdfWidth = 20,
  pdfHeight = 20,
  extendRight = 50,
  yearsTicks = 10,
  ymargin = 0.05,
  nameCEX = 4,
  main = "Timelines",
  WidthHTML = 850,
  imageDir = tempdir(),
  leftOver = TRUE
)
```

Arguments

l	is a list
	• character string $name the person's name
	• integer $start starting year
	• integer $end ending year
	• character string $color background color for the horizontal line
	• list of overlay pictures $pics, each entry contains
	– character string path name for a picture
	– integer year for placement of left edge of picture
vfactor	is height of a horizontal strip
abline	is Boolean if TRUE add dates and corresponding vertical ablines
bkgRBG	is ie c(13,65,130) specifying background color
ablineRBG	specifying abline color
pdfWidth	the width parameter to pdf()
pdfHeight	the height parameter to pdf()
extendRight	extends plot to the right to provide room to fit in names
yearsTicks	number of years interval between x axis ticks
ymargin	is fraction of maxy to leave as top and bottom margin
nameCEX	control size of font in text() to display names associated with each horizontal strip
main	main title for the graph
WidthHTML	the width of the figure when imported into html page
imageDir	where to save the image output files
leftOver	if TRUE then pictures that do not fit in horizontal strip are placed to left of strip rather than omitted

Details

the parameters here work fine in general but they were tuned to match the chart in https://mathigon.org/timeline since my intention is to generate a consistent display of that chart and my chart above one another a consideration is to have the horizontal strips sufficiently tall so that the images of the in-laid paintings can be seen clearly the default RBG values match the design in https://mathigon.org/timeline construct graph whose x axis is years y axis is items to be plotted such as a person's years of birth and death within a broad colored horizontal line overlain with pictures related to that person

Value

No return value, called for side effects

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