

Package ‘SweaveLst’

May 3, 2021

Type Package

Title X

Version 1.0

Date 2021-05-03

Author D. Bonnery

Maintainer D. Bonnery <daniel.bonnery@gmail.com>

Imports stargazer

Suggests

Description Data

Remotes yihui/tikzDevice

License GPL (>= 2)

LazyLoad yes

LazyData true

RoxygenNote 7.1.1

R topics documented:

compile	2
graph2pdffile	2
graph2pngfile	3
graph2texfile	4
graphtikzcode	6
nettoie	7
print_demo_file	8
sanitizeLatexS	8
stargazer2	8
stargazerarray	9
Sweavelst	9
texify_mdfile	10

Index	11
--------------	-----------

compile	<i>Run pdflatex, bibtex, pdflatex pdflates on file</i>
---------	--

Description

Run pdflatex, bibtex, pdflatex pdflates on file

Usage

```
compile(filepath)
```

graph2pdffile	<i>Creates a pdf file by converting a graph to tikz and lualatexing the output</i>
---------------	--

Description

Based on tikzDevice::tikz.

Usage

```
graph2pdffile(
  texte,
  output = tempfile(fileext = ".pdf"),
  widthe = 7,
  heighte = 7,
  caption = NULL,
  label = NULL,
  addfigureenv = FALSE,
  sanitize = FALSE,
  modify = NULL,
  addtopreamble = NULL,
  ...
)
```

Arguments

texte	file containing tikz code
output	output fill path (will be overwritten if existing with no warning)
widthe	a numeric
heighte	a numeric
caption	a character string.
label	a character string.

addfigureenv	a boolean
sanitize	a boolean
modify	a function that takes a character string as a parameter and returns a character string
...	additional parameters to pass to tikzDevice::tikz
usepackages	a character string

Examples

First example: we generate the tikz code for a graph.

```
outputpdf<-tempfile(fileext = ".pdf")
command="print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist))+ggplot2::geom_point())"
graph2pdf(command,output=outputpdf)
readLines(outputpdf)
fs::file_show(outputpdf)
graph2pdf(command,output=outputpdf,width=7,height=3)
fs::file_show(outputpdf)
command="print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist,color=dist))+
ggplot2::geom_point())"
fs::file_show(graph2pdf(command,width=7,height=3,modify=function(y){
gsub("dist","$\\frac{1-\\exp\\left(-\\mathrm{x}^2\\right)}{\\sin(\\mathrm{x})+\\mathds{1}_{\\{0\\}}(\\mathrm{x})"}

```

graph2pngfile	<i>Creates a png file by converting a graph to tikz and lualatexing the output</i>
---------------	--

Description

Based on tikzDevice::tikz.

Usage

```
graph2pngfile(
  texte,
  output = tempfile(fileext = ".png"),
  width = 7,
  height = 7,
  caption = NULL,
  label = NULL,
  addfigureenv = FALSE,
  sanitize = FALSE,
  modify = NULL,
  addtopreamble = NULL,
  ...
)
```

Arguments

texte	file containing tikz code
output	output fill path (will be overwritten if existing with no warning)
width	a numeric
height	a numeric
caption	a character string.
label	a character string.
addfigureenv	a boolean
sanitize	a boolean
modify	a function that takes a character string as a parameter and returns a character string
...	additional parameters to pass to tikzDevice::tikz
usepackages	a character string

Examples

First example: we generate the tikz code for a graph.

```
outputpngfile<-tempfile(fileext = ".png")
command="print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist))+ggplot2::geom_point())"
graph2pngfile(command,output=outputpngfile)
readLines(outputpngfile)
fs::file_show(outputpngfile)
graph2pngfile(command,output=outputpngfile,width=7,height=3)
fs::file_show(outputpngfile)
command="print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist,color=dist))+
ggplot2::geom_point())"
fs::file_show(graph2pngfile(command,width=7,height=3,modify=function(y){
gsub("dist","$\\frac{1-\\exp\\left(-\\mathrm{x}^2\\right)}{\\sin(\\mathrm{x})+\\mathds{1}_{\\{0\\}}\\}\\mathrm{x}
convert a print (graph) expression to a png file.
```

graph2texfile

Modifies the output of the tikz command and copies it to a tex file.

Description

Based on tikzDevice::tikz.

Usage

```
graph2texfile(
  texte,
  output = tempfile(fileext = ".tex"),
  modify = NULL,
  width = 7,
```

```

    heighte = 7,
    caption = NULL,
    label = NULL,
    addfigureenv = FALSE,
    sanitize = FALSE,
    standalone = FALSE,
    addtopreamble = NULL,
    ...
)

```

Arguments

texte	file containing tikz code
modify	a function that takes a character string as a parameter and returns a character string
width	a numeric
heighte	a numeric
caption	a character string.
label	a character string.
addfigureenv	a boolean
sanitize	a boolean
standalone	a boolean
...	additional parameters to pass to tikzDevice::tikz
scale=c(1, 1)	a two parameters scale to apply to the graph
yxratio=c(1, 1),	
usepackages	a character string

Examples

First example: we generate the tikz code for a graph.

```

outputtexfile<-tempfile(fileext = ".tex")
graph2texfile(
  "print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist))+
    ggplot2::geom_point())",
    output=outputtexfile)
readLines(outputtexfile)
graph2texfile(
  "print(ggplot2::ggplot(data=cars,ggplot2::aes(x=speed,y=dist))+
    ggplot2::geom_point())",
    standalone=TRUE,
    output=outputtexfile,
    modify=function(y){
      gsub("dist","$\\\\\\\\\\\\\\\\left(1-\\\\\\\\\\\\\\\\exp\\\\\\\\\\\\\\\\left(-\\\\\\\\\\\\\\\\mathrm{x})^2\\\\\\\\\\\\\\\\right)\\\\left(\\\\\\\\\\\\\\\\sin(\\\\\\\\\\\\\\\\right)",y)
    },
    readLines(outputtexfile)
  system(paste0("cd ",dirname(outputtexfile),"; lualatex '",basename(outputtexfile),"'"))
  fs::file_show(gsub(".tex",".pdf",outputtexfile))

```

graphtikzcode	<i>Reads the output file of the tikz command into an R character string.</i>
---------------	--

Description

Based on tikzDevice::tikz.

Usage

```
graphtikzcode(
  texte,
  width = 7,
  height = 7,
  scale = c(1, 1),
  yxratio = c(1, 1),
  caption = NULL,
  label = NULL,
  addfigureenv = FALSE,
  sanitize = FALSE,
  modify = NULL,
  addtopreamble = character(0),
  standalone = FALSE,
  ...
)
```

Arguments

texte	file containing tikz code
width	a numeric
height	a numeric
caption	a character string.
label	a character string.
addfigureenv	a boolean
sanitize	a boolean
modify	a function that takes a character string as a parameter and returns a character string
standalone	a boolean
...	additional parameters to pass to tikzDevice::tikz
scale=c(1, 1)	a two parameters scale to apply to the graph
yxratio=c(1, 1),	
usepackages	a character string

Examples

```
## First example: we generate the tikz code for a graph.
library(ggplot2)
texte="print(ggplot(data=cars,aes(x=speed,y=dist))+geom_point())"
graphtikzcode("print(ggplot(data=cars,aes(x=speed,y=dist))+geom_point())")
## Second example, we create a rnw file
## This rnw file will be interpreted by Sweave and will print the
## tikz code of the plot into the corresponding tex file.

figonlyrnwfile<-tempfile(fileext = ".rnw")
file.create(figonlyrnwfile);
sink(figonlyrnwfile)
cat(
'\Sexpr{graphtikzcode("print(ggplot(data=cars,aes(x=speed,y=dist))+geom_point())")}'
')
sink()
SweaveLst::SweaveLst(fullpath = figonlyrnwfile)
readLines(gsub(".rnw",".tex",figonlyrnwfile))

library(ggplot2)
figureX<-function(){
figureXX<-ggplot(data=cars,aes(x=speed,y=dist))+geom_point()
x=graphtikzcode("print(figureXX)")
graph2texfile("print(figureXX)",file.path(tempdir(),"figureX.tex"))
graph2pdffile("print(figureXX)",file.path(tempdir(),"figureX.pdf"))
}
figureX()
fs::file_show(file.path(tempdir(),"figureX.pdf"))
```

nettoie

get rid of all latex compilation files

Description

get rid of all latex compilation files

Usage

```
nettoie(directory = getwd())
```

Arguments

directory a character string indicating a file path.

print_demo_file	<i>Gives the tex code to print a demo code</i>
-----------------	--

Description

Gives the tex code to print a demo code

Usage

```
print_demo_file(topic, package)
```

sanitizeLatexS	<i>sanitise latex</i>
----------------	-----------------------

Description

sanitise latex

Usage

```
sanitizeLatexS(str)
```

Arguments

str	a character string
-----	--------------------

stargazer2	<i>Prints a multidimensional array</i>
------------	--

Description

Prints a multidimensional array

Usage

```
stargazer2(...)
```

Arguments

...	additional arguments to pass to SweaveLst::stargazer2
-----	---

stargazerarray	<i>Prints a multidimensional array</i>
----------------	--

Description

Prints a multidimensional array

Usage

```
stargazerarray(XX, ...)
```

Arguments

... additional arguments to pass to SweaveLst::stargazer2

Sweavelst	<i>Sweaves a document and replace all R code by lstlisting environment in the output</i>
-----------	--

Description

Sweaves a document and replace all R code by lstlisting environment in the output

Usage

```
Sweavelst(
  file = NULL,
  path = getwd(),
  fullpath = NULL,
  out.width = 10,
  width = 50,
  height = 10,
  prompte = " "
)
```

Arguments

file	a character string, the filename of the file to Sweave
fullpath	a full path
out.width	a numeric value
width	a numeric value
height	a numeric value
prompte	a character string

`texify_mdfile`*sanitise latex*

Description

sanitise latex

Usage

```
texify_mdfile(input, output)
```

Arguments

fullpath a path to a file

Examples

```
temp.file=tempfile()
sink(temp.file)
cat("$x=1$
```{r}
x=list(x=1)
x$x
```
`r x$x`
")
sink()
readLines(temp.file)
fullpath=temp.file
```

Index

`compile`, [2](#)

`graph2pdffile`, [2](#)

`graph2pngfile`, [3](#)

`graph2texfile`, [4](#)

`graphtikzcode`, [6](#)

`nettoie`, [7](#)

`print_demo_file`, [8](#)

`sanitizeLatexS`, [8](#)

`stargazer2`, [8](#)

`stargazerarray`, [9](#)

`Sweavelst`, [9](#)

`texify_mdfile`, [10](#)