

# Package ‘SweaveLst’

June 7, 2020

**Type** Package

**Title** X

**Version** 1.0

**Date** 2020-06-07

**Author** D. Bonnery

**Maintainer** D. Bonnery <dbonnery@umd.edu>

**Imports** stargazer

**Suggests**

**Description** Data

**Remotes** yihui/tikzDevice

**License** GPL (>= 2)

**LazyLoad** yes

**LazyData** true

**RoxygenNote** 7.0.2

## R topics documented:

compile . . . . .	2
graph2pdffile . . . . .	2
graph2texfile . . . . .	3
graphtikzcode . . . . .	4
nettoie . . . . .	6
print_demo_file . . . . .	6
sanitizeLatexS . . . . .	7
stargazer2 . . . . .	7
stargazerarray . . . . .	7
Sweavelst . . . . .	8

<b>Index</b>	<b>9</b>
--------------	----------

---

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})"}
})
```

---

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,
  height = 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
height	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","$\\\\\\\\\\\\\\\\left(1-\\\\\\\\\\\\\\\\exp\\\\\\\\\\\\\\\\left(-\\\\\\\\\\\\\\\\mathrm{x}^2\\\\\\\\\\\\\\\\right)\\\\\\\\\\\\\\\\left(\\\\\\\\\\\\\\\\sin(\\\\\\\\\\\\\\\\right)\\\\\\\\\\\\\\\\right)$",y)
  },
  readLines(outputtexfile)
  system(paste0("cd ",dirname(outputtexfile),"; lualatex '",basename(outputtexfile),"'"))
  fs::file_show(gsub(".tex",".pdf",outputtexfile))
```

---

graphtikzcode

---

*Reads the output file of the tikz command into an R character string.*


---

**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))
```

---

nettoie	<i>get rid of all latex compilation files</i>
---------	---

---

### 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



# Index

`compile`, [2](#)

`graph2pdffile`, [2](#)

`graph2texfile`, [3](#)

`graphtikzcode`, [4](#)

`nettoie`, [6](#)

`print_demo_file`, [6](#)

`sanitizeLatexS`, [7](#)

`stargazer2`, [7](#)

`stargazerarray`, [7](#)

`Sweavelst`, [8](#)