# Package 'pander'

November 6, 2018

Title An R 'Pandoc' Writer

Type Package

**Encoding** UTF-8

Description Contains some functions catching all messages, 'stdout' and other useful information while evaluating R code and other helpers to return user specified text elements (like: header, paragraph, table, image, lists etc.) in 'pandoc' markdown or several type of R objects similarly automatically transformed to markdown format. Also capable of exporting/converting (the resulting) complex 'pandoc' documents to e.g. HTML, 'PDF', 'docx' or 'odt'. This latter reporting feature is supported in brew syntax or with a custom reference class with a smarty caching 'backend'.

**Version** 0.6.3 **Date** 2018-11-06

URL http://rapporter.github.io/pander

BugReports https://github.com/rapporter/pander/issues

License AGPL-3 | file LICENSE

**Depends** R (>= 2.15.0)

**Imports** grDevices, graphics, methods, utils, stats, digest, tools, Rcpp

**Suggests** grid, lattice, ggplot2 (>= 0.9.2), sylly, sylly.en, futile.logger, survival, microbenchmark, zoo, nlme, descr, MASS, knitr, rmarkdown, tables, reshape, memisc, Epi, randomForest, tseries, gtable, rms, forecast, data.table

**SystemRequirements** pandoc (http://johnmacfarlane.net/pandoc) for exporting markdown files to other formats.

LinkingTo Rcpp

VignetteBuilder knitr

RoxygenNote 6.1.0

**NeedsCompilation** yes

Author Gergely Daróczi [aut, cre] (<a href="https://orcid.org/0000-0003-3149-8537">https://orcid.org/0000-0003-3149-8537</a>), Roman Tsegelskyi [aut]

Maintainer Gergely Daróczi <daroczig@rapporter.net>

Repository CRAN

**Date/Publication** 2018-11-06 10:50:02 UTC

# **R** topics documented:

add.blank.lines .																			4
add.significance.sta	ar	S																	5
cache.off																			5
coef_mat																			6
emphasize.rows .																			6
eval.msgs																			7
evals																			9
evalsOptions																	 		17
has.rownames																			19
openFileInOS																			19
p																	 		20
pander																			21
pander.anova																	 		23
pander.aov																			23
pander.aovlist																			24
pander.Arima																			24
pander.call																	 		25
pander.cast_df																			25
pander.character .																	 		26
pander.clogit																			26
pander.coxph																	 		27
pander.cph																			27
pander.CrossTable																			28
pander.data.frame																			28
pander.data.table																			29
pander.Date																			29
pander.default																			30
pander.density																	 		30
pander.describe .																			31
pander.ets																			31
pander.evals																			32
pander.factor																			32
pander.formula .																			33
pander.ftable																			33
pander.function .																			34
pander.Glm																			34
pander.glm																			35
pander.gtable																	 		35
pander.htest																			36
pander.image																			36
pander.irts																			37

pander.list	37
pander.lm	38
pander.lme	38
pander.logical	39
pander.lrm	39
pander.manova	40
pander.matrix	40
pander.microbenchmark	41
pander.name	41
pander.nls	42
pander.NULL	42
pander.numeric	43
pander.ols	43
oander.orm	44
oander.polr	44
oander.POSIXct	45
	45
	46
	46
	47
	47
	48
	48
•	49
	49
·	50
•	50
· ·	51
	51
· ·	52
	52
. • • • • • • • • • • • • • • • • • • •	53
. 71	54
· · · · · · · · · · · · · · · · · · ·	54
	55
	55
	56
	56
	57
·	57
	58
	58
	59
	59
:	59 62
	62
	64
Pandoc.convert	66

4 add.blank.lines

pa	andoc.date.return	6
pa	andoc.emphasis.return	6
рa	andoc.footnote.return	6
pa	undoc.formula.return	6
2	andoc.header.return	7
рa	andoc.horizontal.rule.return	7
pa	andoc.image.return	7
o a	andoc.indent	72
pa	andoc.link.return	73
рa	andoc.list.return	7.
pa	andoc.p.return	75
- pa	andoc.strikeout.return	7:
рa	andoc.strong.return	76
- pa	andoc.table.return	7
рa	andoc.title.return	8
pε	andoc.verbatim.return	82
re	draw.recordedplot	83
re	drawPlot	84
re	move.extra.newlines	85
re	pChar	85
se	- t.alignment	86
se	t.caption	86
sp	olitLine	8
tri	im.spaces	8
	rap	
		89

add.blank.lines

Add trailing and leading blank line

# Description

Adds a line break before and after the character string(s).

# Usage

add.blank.lines(x)

# Arguments

х

character vector

add.significance.stars 5

```
{\tt add.significance.stars}
```

Add significance stars

# Description

This function adds significance stars to passed p value(s) as: one star for value below 0.05, two for 0.01 and three for 0.001.

### Usage

```
add.significance.stars(p, cutoffs = c(0.05, 0.01, 0.001))
```

# Arguments

p numeric vector or tabular data

cutoffs the cutoffs for the 1/2/3 significance stars

#### Value

character vector

cache.off

Toggle cache

# Description

This function is just a wrapper around evalsOptions to switch pander's cache on or off easily, which might be handy in some brew documents to prevent repetitive strain injury:)

### Usage

```
cache.on()
```

cache.off()

6 emphasize.rows

coef_mat	Calculate coef matrix for models from rms package Forked from prModFit from rms

### **Description**

Calculate coef matrix for models from rms package Forked from prModFit from rms

# Usage

```
coef_mat(obj, coefs)
```

# **Arguments**

obj object list

coefs numeric value if to print only the first n regression coefficients in the model.

#### Value

coeficients matrix

emphasize.rows

Emphasize rows/columns/cells

# Description

Storing indexes of cells to be (strong) emphasized of a tabular data in an internal buffer that can be released and applied by pandoc.table, pander or evals later.

### Usage

```
emphasize.rows(x)
emphasize.cols(x)
emphasize.cells(x)
emphasize.strong.rows(x)
emphasize.strong.cols(x)
emphasize.strong.cells(x)
emphasize.italics.rows(x)
```

eval.msgs 7

```
emphasize.italics.cols(x)
emphasize.italics.cells(x)
emphasize.verbatim.rows(x)
emphasize.verbatim.cols(x)
emphasize.verbatim.cells(x)
```

#### **Arguments**

Х

vector of row/columns indexes or an array like returned by which(..., arr.ind = TRUE)

#### **Examples**

```
## Not run:
n <- data.frame(x = c(1,1,1,1,1), y = c(0,1,0,1,0))
emphasize.cols(1)
emphasize.rows(1)
pandoc.table(n)

emphasize.strong.cells(which(n == 1, arr.ind = TRUE))
pander(n)

## End(Not run)</pre>
```

eval.msgs

Evaluate with messages

#### **Description**

This function takes text(s) of R code and evals all at one run - returning a list with four elements. See Details.

#### **Usage**

```
eval.msgs(src, env = NULL, showInvisible = FALSE,
  graph.unify = evalsOptions("graph.unify"))
```

# **Arguments**

src character values containing R code

environment where evaluation takes place. If not set (by default), a new tempo-

rary environment is created.

showInvisible return invisible results?

graph.unify should eval.msgs try to unify the style of (lattice and ggplot2) plots? If set

to TRUE (by default), some panderOptions() would apply. Please note that this

argument has no effect on base plots, use evals instead.

8 eval.msgs

#### **Details**

eval.msgs returns a detailed list of the result of evaluation:

- src character vector of specified R code.
- *result* result of evaluation. NULL if nothing is returned. If any R code returned an R object while evaluating then the *last* R object will be returned as a raw R object. If a graph is plotted in the end of the given R code (remember: *last* R object), it would be automatically printed (see e.g. lattice and ggplot2).
- output character vector of printed version (capture.output) of result
- type class of generated output. 'NULL' if nothing is returned, 'error' if some error occurred.
- msg possible messages grabbed while evaluating specified R code with the following structure:
  - messages character vector of possible diagnostic message(s)
  - warnings character vector of possible warning message(s)
  - errors character vector of possible error message(s)
- stdout character vector of possibly printed texts to standard output (console)

#### Value

a list of parsed elements each containing: src (the command run), result (R object: NULL if nothing returned), printed output, type (class of returned object if any), informative/wawrning and error messages (if any returned by the command run, otherwise set to NULL) and possible stdoutt value. See Details above.

#### See Also

evals

#### **Examples**

```
## Not run:
eval.msgs('1:5')
eval.msgs('x <- 1:5')
eval.msgs('lm(mtcars$hp ~ mtcars$wt)')

## plots
eval.msgs('plot(runif(100))')
eval.msgs('histogram(runif(100))')

## error handling
eval.msgs('runiff(23)')
eval.msgs('runif is a nice function')
eval.msgs('runif is a nice function')
eval.msgs('no.R.object.like.that')

## messages
eval.msgs(c('message("F00")', '1:2'))
eval.msgs(c('warning("F00")', '1:2'))
eval.msgs(c('message("F00")', '1:2'))</pre>
```

```
eval.msgs('warning("d");warning("f");1')
## stdout
eval.msgs('cat("writing to console")')
eval.msgs('cat("writing to console");1:4')
## End(Not run)
```

evals

Evaluate and Process R Code

#### **Description**

This function takes either a vector/list of *strings* with actual R code, which it to be parsed to separate elements. Each list element is evaluated in a special environment, and a detailed list of results is returned for each logical part of the R code: a character value with R code, resulting R object, printed output, class of resulting R object, possible informative/warning/error messages and anything written to stdout. If a graph is plotted in the given text, the returned object is a string specifying the path to the saved file. Please see Details below. If parse option set to FALSE, then the returned list's length equals to the length of the parsed input - as each string is evaluated as separate R code in the same environment. If a nested list of R code or a concatenated string (separated by \n or ;) is provided like list(c('runif(1)', 'runif(1)')) with parse=FALSE, then everything is evaled at one run so the length of returned list equals to one or the length of the provided nested list. See examples below.

#### Usage

```
evals(txt, parse = evalsOptions("parse"),
  cache = evalsOptions("cache"),
  cache.mode = evalsOptions("cache.mode"),
  cache.dir = evalsOptions("cache.dir"),
  cache.time = evalsOptions("cache.time"),
  cache.copy.images = evalsOptions("cache.copy.images"),
  showInvisible = FALSE, classes = evalsOptions("classes"),
  hooks = evalsOptions("hooks"), length = evalsOptions("length"),
 output = evalsOptions("output"), env = NULL,
  graph.unify = evalsOptions("graph.unify"),
  graph.name = evalsOptions("graph.name"),
 graph.dir = evalsOptions("graph.dir"),
 graph.output = evalsOptions("graph.output"),
 width = evalsOptions("width"), height = evalsOptions("height"),
  res = evalsOptions("res"), hi.res = evalsOptions("hi.res"),
  hi.res.width = evalsOptions("hi.res.width"), hi.res.height = 960 *
  (height/width), hi.res.res = res * (hi.res.width/width),
  graph.env = evalsOptions("graph.env"),
  graph.recordplot = evalsOptions("graph.recordplot"),
 graph.RDS = evalsOptions("graph.RDS"), log = evalsOptions("log"),
  ...)
```

#### **Arguments**

txt a character vector containing R code. This could be a list/vector of lines of code

or a simple string holding R code separated by; or \n.

parse if TRUE the provided txt elements would be merged into one string and parsed

to logical chunks. This is useful if you would want to get separate results of your code parts - not just the last returned value, but you are passing the whole script in one string. To manually lock lines to each other (e.g. calling a plot and on next line adding an abline or text to it), use a plus char (+) at the beginning of each line which should be evaluated with the previous one(s). If set to FALSE, evals would not try to parse R code, it would get evaluated in separate runs - as

provided. Please see examples below.

cache caching the result of R calls if set to TRUE. Please note the caching would not

work if parse set to FALSE or syntax error is to be found.

cache.mode cached results could be stored in an environment in *current* R session or let it

be permanent on disk.

cache.dir path to a directory holding cache files if cache.mode set to disk. Default to

. cache in current working directory.

cache.time number of seconds to limit caching based on proc.time. If set to 0, all R

commands, if set to Inf, none is cached (despite the cache parameter).

cache.copy.images

copy images to new file names if an image is returned from the disk cache? If

set to FALSE (default), the cached path would be returned.

showInvisible return invisible results?

classes a vector or list of classes which should be returned. If set to NULL (by default)

all R objects will be returned.

hooks list of hooks to be run for given classes in the form of list(class = fn). If

you would also specify some parameters of the function, a list should be provided in the form of list(fn, param1, param2=NULL) etc. So the hooks would become list(class1=list(fn, param1, param2=NULL), ...). See example below. A default hook can be specified too by setting the class to 'default'. This can be handy if you do not want to define separate methods/functions to each possible class, but automatically apply the default hook to all classes not mentioned in the list. You may also specify only one element in the list like: hooks=list('default' = pander\_return). Please note, that nor error/warning messages, nor stdout is captured (so: updated) while running

hooks!

length any R object exceeding the specified length will not be returned. The default

value (Inf) does not filter out any R objects.

output a character vector of required returned values. This might be useful if you are

only interested in the result, and do not want to save/see e.g. messages or

printed output. See examples below.

env environment where evaluation takes place. If not set (by default), a new tempo-

rary environment is created.

graph.name set the file name of saved plots which is tempfile by default. A simple character string might be provided where %d would be replaced by the index of the generating txt source, %n with an incremented integer in graph.dir with similar file names and %t by some unique random characters. While running in Pandoc.brew other indices could be triggered like %i and %I.  graph.dir path to a directory where to place generated images. If the directory does not exist, evals try to create that. Default set to plots in current working directory.  graph.output set the required file format of saved plots. Currently it could be any of grDevices': png, bmp, jpeg, jpg, tiff, svg or pdf.  width width of generated plot in pixels for even vector formats  height height of generated plot in pixels for even vector formats  height height of generated plot in pixels for even vector formats  nominal resolution in ppi. The height and width of vector images will be calculated based in this.  hi.res width width of generated high resolution plot in pixels for even vector formats  hi.res.height width of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with event environments in which plots were generated to distinct files (based on graph.name) with recodplot extension?  graph.recordplot  save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  an optionally passed logger name from futile.logger to recor	graph.unify	should evals try to unify the style of (base, lattice and ggplot2) plots? If set to TRUE, some panderOptions() would apply. By default this is disabled not to freak out useRs:)
exist, evals try to create that. Default set to plots in current working directory.  graph.output set the required file format of saved plots. Currently it could be any of grDevices': png, bmp, jpeg, jpg, tiff, svg or pdf.  width width of generated plot in pixels for even vector formats  height height of generated plot in pixels for even vector formats  res nominal resolution in ppi. The height and width of vector images will be calculated based in this.  hi.res generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot  save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	graph.name	acter string might be provided where %d would be replaced by the index of the generating txt source, %n with an incremented integer in graph.dir with similar file names and %t by some unique random characters. While running in
png, bmp, jpeg, jpg, tiff, svg or pdf.  width width of generated plot in pixels for even vector formats height height of generated plot in pixels for even vector formats  res nominal resolution in ppi. The height and width of vector images will be calculated based in this.  hi.res generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	graph.dir	
height of generated plot in pixels for even vector formats  res nominal resolution in ppi. The height and width of vector images will be calculated based in this.  hi.res generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats  hi.res.height height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot  save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	graph.output	
nominal resolution in ppi. The height and width of vector images will be calculated based in this.  hi.res generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	width	width of generated plot in pixels for even vector formats
hi.res generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot  save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	height	height of generated plot in pixels for even vector formats
an image would be run twice.  hi.res.width width of generated high resolution plot in pixels for even vector formats hi.res.height height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	res	
hi.res.height height of generated high resolution plot in pixels for even vector formats. This value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	hi.res	
value can be left blank to be automatically calculated to match original plot aspect ratio.  hi.res.res nominal resolution of high resolution plot in ppi. The height and width of vector plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	hi.res.width	width of generated high resolution plot in pixels for even vector formats
tor plots will be calculated based in this. This value can be left blank to be automatically calculated to fit original plot scales.  graph.env save the environments in which plots were generated to distinct files (based on graph.name) with env extension?  graph.recordplot save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	hi.res.height	value can be left blank to be automatically calculated to match original plot
graph.name) with env extension?  graph.recordplot  save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS  save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log  an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	hi.res.res	tor plots will be calculated based in this. This value can be left blank to be
save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	graph.env	
extension?  graph.RDS save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?  log an optionally passed logger name from futile.logger to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given logger name.	graph.recordpl	
ating the plots to distinct files (based on graph.name) with RDS extension?  an optionally passed <i>logger name</i> from <b>futile.logger</b> to record all info, trace, debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given <i>logger name</i> .		
debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender and appender.file on the given <i>logger name</i> .	graph.RDS	
optional parameters passed to graphics device (e.g. bg, pointsize etc.)	log	debug and error messages. Logging to the console can be done by specifying e.g. flog.namespace(), and log to a file by previously calling flog.appender
		optional parameters passed to graphics device (e.g. bg, pointsize etc.)

# **Details**

As evals tries to grab the plots internally, pleas do not run commands that set graphic device or dev.off. E.g. running evals(c('png("/tmp/x.png")', 'plot(1:10)', 'dev.off()')) would fail. printing of lattice and ggplot2 objects is not needed, evals would deal with that automatically.

The generated image file(s) of the plots can be fine-tuned by some specific options, please check out graph.output, width, height, res, hi.res, hi.res.width, hi.res.height and hi.res.res parameters. Most of these options are better not to touch, see details of parameters below.

Returned result values: list with the following elements

- src character vector of specified R code.
- result result of evaluation. NULL if nothing is returned. If any R code returned an R object while evaluating then the *last* R object will be returned as a raw R object. If a graph is plotted in the given text, the returned object is a string (with class set to image) specifying the path to the saved image file. If graphic device was touched, then no other R objects will be returned.
- *output* character vector of printed version (capture.output) of result
- type class of generated output. 'NULL' if nothing is returned, 'error' if some error occurred.
- msg possible messages grabbed while evaluating specified R code with the following structure:
  - messages character vector of possible diagnostic message(s)
  - warnings character vector of possible warning message(s)
  - errors character vector of possible error message(s)
- stdout character vector of possibly printed texts to standard output (console)

By default evals tries to *cache* results. This means that if evaluation of some R commands take too much time (specified in cache.time parameter), then evals would save the results in a file and return from there on next exact R code's evaluation. This caching algorithm tries to be smart as checks not only the passed R sources, but all variables inside that and saves the hash of those.

Technical details of the caching algorithm:

- Each passed R chunk is parsed to single commands.
- Each parsed command's part (let it be a function, variable, constant etc.) evaluated (as a name) separately to a list. This list describes the unique structure and the content of the passed R commands, and has some IMHO really great benefits (see examples below).
- A hash if computed to each list element and cached too in pander's local environments. This is useful if you are using large data frames, just imagine: the caching algorithm would have to compute the hash for the same data frame each time it's touched! This way the hash is recomputed only if the R object with the given name is changed.
- The list is serialized and an SHA-1 hash is computed for that which is unique and there is no real risk of collision.
- If evals can find the cached results in a file named to the computed hash, then it is returned on the spot.
- Otherwise the call is evaluated and the results are optionally saved to cache (e.g. if cache is active, if the proc.time() of the evaluation is higher then it is defined in cache.time etc.).

This is a quite secure way of caching, but if you would encounter any issues, just set cache to FALSE or tweak other cache parameters. While setting cache.dir, please do think about what you are doing and move your graph.dir accordingly, as evals might result in returning an image file path which is not found any more on your file system!

Also, if you have generated a plot and rendered that to e.g. png before and later try to get e.g. pdf it would fail with cache on. Similarly you cannot render a high resolution image of a cached image, but you have to (temporary) disable caching.

The default evals options could be set globally with evalsOptions, e.g. to switch off the cache just run evalsOptions('cache', FALSE).

Please check the examples carefully below to get a detailed overview of evals.

#### Value

a list of parsed elements each containing: src (the command run), result (R object: NULL if nothing returned, path to image file if a plot was generated), printed output, type (class of returned object if any), informative/wawrning and error messages (if any returned by the command run, otherwise set to NULL) and possible stdoutt value. See Details above.

#### See Also

```
eval.msgs evalsOptions
```

#### **Examples**

```
## Not run:
# parsing several lines of R code
txt <- readLines(textConnection('x <- rnorm(100)</pre>
 runif(10)
 warning('Lorem ipsum foo-bar-foo!')
 plot(1:10)
 qplot(rating, data = movies, geom = 'histogram')
 y <- round(runif(100))</pre>
 cor.test(x, y)
 crl <- cor.test(runif(10), runif(10))</pre>
 table(mtcars$am, mtcars$cyl)
 ggplot(mtcars) + geom_point(aes(x = hp, y = mpg))'))
evals(txt)
## parsing a list of commands
txt <- list('df <- mtcars',</pre>
c('plot(mtcars$hp, pch = 19)','text(mtcars$hp, label = rownames(mtcars), pos = 4)'),
 'ggplot(mtcars) + geom_point(aes(x = hp, y = mpg))')
evals(txt)
## the same commands in one string but also evaluating the `plot` with `text`
## (note the leading '+' on the beginning of `text...` line)
txt <- 'df <- mtcars
plot(mtcars$hp, pch = 19)
+text(mtcars$hp, label = rownames(mtcars), pos = 4)
ggplot(mtcars) + geom_point(aes(x = hp, y = mpg))'
evals(txt)
## but it would fail without parsing
evals(txt, parse = FALSE)
## handling messages
```

```
evals('message(20)')
evals('message(20); message(20)', parse = FALSE)
## adding a caption to a plot
evals('set.caption("F00"); plot(1:10)')
## `plot` is started with a `+` to eval the codes in the same chunk
## (no extra chunk with NULL result)
evals('set.caption("F00"); +plot(1:10)')
## handling warnings
evals('chisq.test(mtcars$gear, mtcars$hp)')
evals(list(c('chisq.test(mtcars$gear, mtcars$am)', 'pi',
  'chisq.test(mtcars$gear, mtcars$hp)')), parse = FALSE)
evals(c('chisq.test(mtcars$gear, mtcars$am)',
  'pi',
  'chisq.test(mtcars$gear, mtcars$hp)'))
## handling errors
evals('runiff(20)')
evals('Old MacDonald had a farm\...')
evals('## Some comment')
evals(c('runiff(20)', 'Old MacDonald had a farm?'))
evals(list(c('runiff(20)', 'Old MacDonald had a farm?')), parse = FALSE)
evals(c('mean(1:10)', 'no.R.function()'))
evals(list(c('mean(1:10)', 'no.R.function()')), parse = FALSE)
evals(c('no.R.object', 'no.R.function()', 'very.mixed.up(stuff)'))
evals(list(c('no.R.object', 'no.R.function()', 'very.mixed.up(stuff)')), parse = FALSE)
evals(c('no.R.object', 'Old MacDonald had a farm\...', 'pi'))
evals('no.R.object;Old MacDonald had a farm\...;pi', parse = FALSE)
evals(list(c('no.R.object', 'Old MacDonald had a farm\...', 'pi')), parse = FALSE)
## graph options
evals('plot(1:10)')
evals('plot(1:10);plot(2:20)')
evals('plot(1:10)', graph.output = 'jpg')
evals('plot(1:10)', height = 800)
evals('plot(1:10)', height = 800, hi.res = TRUE)
evals('plot(1:10)', graph.output = 'pdf', hi.res = TRUE)
evals('plot(1:10)', res = 30)
evals('plot(1:10)', graph.name = 'myplot')
evals(list('plot(1:10)', 'plot(2:20)'), graph.name = 'myplots-%d')
evals('plot(1:10)', graph.env = TRUE)
evals('x <- runif(100);plot(x)', graph.env = TRUE)
evals(c('plot(1:10)', 'plot(2:20)'), graph.env = TRUE)
evals(c('x \leftarrow runif(100)', 'plot(x)', 'y \leftarrow runif(100)', 'plot(y)'), graph.env = TRUE)
evals(list(
    c('x <- runif(100)', 'plot(x)'),</pre>
    c('y <- runif(100)', 'plot(y)')),</pre>
 graph.env = TRUE, parse = FALSE)
evals('plot(1:10)', graph.recordplot = TRUE)
## unprinted lattice plot
evals('histogram(mtcars$hp)', graph.recordplot = TRUE)
```

```
## caching
system.time(evals('plot(mtcars)'))
system.time(evals('plot(mtcars)'))
                                                   # running again to see the speed-up :)
system.time(evals('plot(mtcars)', cache = FALSE)) # cache disabled
## caching mechanism does check what's inside a variable:
x <- mtcars
evals('plot(x)')
x <- cbind(mtcars, mtcars)</pre>
evals('plot(x)')
x <- mtcars
system.time(evals('plot(x)'))
## stress your CPU - only once!
evals('x <- sapply(rep(mtcars$hp, 1e3), mean)') # run it again!</pre>
## play with cache
require(lattice)
evals('histogram(rep(mtcars$hp, 1e5))')
## nor run the below call
## that would return the cached version of the above call :)
f <- histogram
g <- rep
A <- mtcars$hp
B <- 1e5
evals('f(g(A, B))')#'
## or switch off cache globally:
evalsOptions('cache', FALSE)
## and switch on later
evalsOptions('cache', TRUE)
## evaluate assignments inside call to evals
## changes to environments are cached properly and retreived
evalsOptions('cache.time', 0)
x <- 2
evals('x \leftarrow x^2')[[1]]result
evals('x <- x^2; x + 1')[[2]]$result
evalsOptions('cache.time', 0.1)
## returning only a few classes
txt <- readLines(textConnection('rnorm(100)</pre>
  list(x = 10:1, y = 'Godzilla!')
  c(1,2,3)
  matrix(0,3,5)'))
evals(txt, classes = 'numeric')
evals(txt, classes = c('numeric', 'list'))
txt <- 'runif(1:4); matrix(runif(25), 5, 5); 1:5'</pre>
hooks <- list('numeric' = round, 'matrix' = pander_return)</pre>
evals(txt, hooks = hooks)
## using pander's default hook
```

```
evals(txt, hooks = list('default' = pander_return))
evals('22/7', hooks = list('numeric' = round))
evals('matrix(runif(25), 5, 5)', hooks = list('matrix' = round))
## setting default hook
evals(c('runif(10)', 'matrix(runif(9), 3, 3)'),
  hooks = list('default'=round))
## round all values except for matrices
evals(c('runif(10)', 'matrix(runif(9), 3, 3)'),
  hooks = list(matrix = 'print', 'default' = round))
# advanced hooks
hooks <- list('numeric' = list(round, 2), 'matrix' = list(round, 1))</pre>
evals(txt, hooks = hooks)
# return only returned values
evals(txt, output = 'result')
# return only messages (for checking syntax errors etc.)
evals(txt, output = 'msg')
# check the length of returned values and do not return looong R objects
evals('runif(10)', length = 5)
# note the following will not be filtered!
evals('matrix(1,1,1)', length = 1)
# if you do not want to let such things be eval-ed in the middle of a string
# use it with other filters :)
evals('matrix(1,1,1)', length = 1, classes = 'numeric')
# hooks & filtering
evals('matrix(5,5,5)',
  hooks = list('matrix' = pander_return),
  output = 'result')
# eval-ing chunks in given environment
myenv <- new.env()
evals('x <- c(0,10)', env = myenv)
evals('mean(x)', env = myenv)
rm(myenv)
# note: if you had not specified 'myenv', the second 'evals' would have failed
evals('x <- c(0,10)')
evals('mean(x)')
# log
x <- evals('1:10', log = 'foo')</pre>
# trace log
evalsOptions('cache.time', 0)
x <- evals('1:10', log = 'foo')</pre>
x <- evals('1:10', log = 'foo')</pre>
# log to file
t <- tempfile()
```

evalsOptions 17

```
flog.appender(appender.file(t), name = 'evals')
x <- evals('1:10', log = 'evals')
readLines(t)
# permanent log for all events
evalsOptions('log', 'evals')
flog.threshold(TRACE, 'evals')
evals('foo')
## End(Not run)</pre>
```

evalsOptions

Querying/setting evals option

### **Description**

To list all evals options, just run this function without any parameters provided. To query only one value, pass the first parameter. To set that, use the value parameter too.

#### Usage

```
evalsOptions(o, value)
```

#### **Arguments**

```
o option name (string). See below.
value value to assign (optional)
```

#### **Details**

The following evals options are available:

- parse: if TRUE the provided txt elements would be merged into one string and parsed to logical chunks. This is useful if you would want to get separate results of your code parts not just the last returned value, but you are passing the whole script in one string. To manually lock lines to each other (e.g. calling a plot and on next line adding an abline or text to it), use a plus char (+) at the beginning of each line which should be evaluated with the previous one(s). If set to FALSE, evals would not try to parse R code, it would get evaluated in separate runs as provided. Please see examples of evals.
- cache: caching the result of R calls if set to TRUE
- cache.mode: cached results could be stored in an environment in *current* R session or let it be permanent on disk.
- cache.dir: path to a directory holding cache files if cache.mode set to disk. Default to .cache in current working directory.
- cache.time: number of seconds to limit caching based on proc.time. If set to 0, all R commands, if set to Inf, none is cached (despite the cache parameter).
- cache.copy.images: copy images to new files if an image is returned from cache? If set to FALSE (default) the "old" path would be returned.

18 evalsOptions

• classes: a vector or list of classes which should be returned. If set to NULL (by default) all R objects will be returned.

- hooks: list of hooks to be run for given classes in the form of list(class = fn). If you would also specify some parameters of the function, a list should be provided in the form of list(fn, param1, param2=NULL) etc. So the hooks would become list(class1=list(fn, param1, param2=NULL) See examples of evals. A default hook can be specified too by setting the class to 'default'. This can be handy if you do not want to define separate methods/functions to each possible class, but automatically apply the default hook to all classes not mentioned in the list. You may also specify only one element in the list like: hooks=list('default' = pander\_return). Please note, that nor error/warning messages, nor stdout is captured (so: updated) while running hooks!
- length: any R object exceeding the specified length will not be returned. The default value (Inf) does not filter out any R objects.
- output: a character vector of required returned values. This might be useful if you are only interested in the result, and do not want to save/see e.g. messages or printed output. See examples of evals.
- graph.unify: boolean (default: FALSE) that determines if evals should try to unify the style of (base, lattice and ggplot2) plots? If set to TRUE, some panderOptions() would apply.
- graph.name: set the file name of saved plots which is tempfile by default. A simple character string might be provided where %d would be replaced by the index of the generating txt source, %n with an incremented integer in graph.dir with similar file names and %t by some random characters. A function's name to be evaluated can be passed here too.
- graph.dir: path to a directory where to place generated images. If the directory does not exist, evals try to create that. Default set to plots in current working directory.
- graph.output: set the required file format of saved plots. Currently it could be any of grDevices: png, bmp, jpeg, jpg, tiff, svg or pdf. Set to NA not to save plots at all and tweak that setting with capture.plot() on demand.
- width: width of generated plot in pixels for even vector formats
- height: height of generated plot in pixels for even vector formats
- res: nominal resolution in ppi. The height and width of vector images will be calculated based in this.
- hi.res: generate high resolution plots also? If set to TRUE, each R code parts resulting an image would be run twice.
- hi.res.width: width of generated high resolution plot in pixels for even vector formats. The height and res of high resolution image is automatically computed based on the above options to preserve original plot aspect ratio.
- graph.env: save the environments in which plots were generated to distinct files (based on graph.name) with env extension?
- graph.recordplot: save the plot via recordPlot to distinct files (based on graph.name) with recodplot extension?
- graph.RDS: save the raw R object returned (usually with lattice or ggplot2) while generating the plots to distinct files (based on graph.name) with RDS extension?
- log: NULL or an optionally passed *logger name* from **futile.logger** to record all info, trace, debug and error messages.

has.rownames 19

### See Also

```
evals panderOptions
```

### **Examples**

```
evalsOptions()
evalsOptions('cache')
evalsOptions('cache', FALSE)
```

has.rownames

Check if rownames are available

### **Description**

Dummy helper to check if the R object has real rownames or not.

### Usage

```
has.rownames(x)
```

### **Arguments**

Х

a tabular-like R object

#### Value

TRUE OR FALSE

openFileInOS

Open file

# Description

Tries to open a file with operating system's default program.

### Usage

```
openFileInOS(f)
```

# Arguments

f

file (with full path)

#### References

This function is a fork of David Hajage's convert function: https://github.com/eusebe/ascii/blob/master/R/export.r

20 p

p Inline Printing
-------------------

#### **Description**

p merges elements of a vector in one string for the sake of pretty inline printing. Default parameters are read from appropriate option values (see argument description for details). This function allows you to put the results of an expression that yields a variable *inline*, by wrapping the vector elements with the string provided in wrap, and separating elements by main and ending separator (sep and copula). In case of a two-length vector, value specified in copula will be used as a separator. You can also control the length of provided vector by altering an integer value specified in limit argument (defaults to Inf).

# Usage

```
p(x, wrap = panderOptions("p.wrap"), sep = panderOptions("p.sep"),
  copula = panderOptions("p.copula"), limit = Inf,
  keep.trailing.zeros = panderOptions("keep.trailing.zeros"),
  missing = panderOptions("missing"), digits = panderOptions("digits"),
  round = panderOptions("round"))
```

#### **Arguments**

X	an atomic vector to get merged for inline printing
wrap	a string to wrap vector elements (uses value set in p. wrap option: '_' by default, which is a markdown-friendly wrapper and it puts the string in $italic$ )
sep	a string with the main separator, i.e. the one that separates all vector elements but the last two (uses the value set in p. sep option - $^{\prime}$ , $^{\prime}$ by default)
copula	a string with ending separator - the one that separates the last two vector elements (uses the value set in $p$ . copula option, 'and' by default)
limit	maximum character length (defaults to Infinitive elements)
keep.trailing.	zeros
	to show or remove trailing zeros in numbers
missing	string to replace missing values
digits	numeric (default: 2) passed to format
round	numeric (default: Inf) passed to round

#### Value

a string with concatenated vector contents

#### Author(s)

Aleksandar Blagotic

pander 21

#### References

This function was moved from rapport package: http://rapport-package.info.

#### **Examples**

```
p(c('fee', 'fi', 'foo', 'fam'))
# [1] '_fee_, _fi_, _foo_ and _fam_'
p(1:3, wrap = '')
# [1] '1, 2 and 3'
p(LETTERS[1:5], copula = 'and the letter')
# [1] '_A_, _B_, _C_, _D_ and the letter _E_'
p(c('Thelma', 'Louise'), wrap = '', copula = '&')
# [1] 'Thelma & Louise'
```

pander

Generic pander method

### Description

Prints an R object in Pandoc's markdown.

#### Usage

```
pander(x = NULL, ...)
```

#### **Arguments**

x an R object

... optional parameters passed to special methods and/or raw pandoc.\* functions

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### Note

This function can be called by pander and pandoc too.

#### References

- John MacFarlane (2013): \_Pandoc User's Guide\_. http://johnmacfarlane.net/pandoc/ README.html
- David Hajage (2011): \_ascii. Export R objects to several markup languages.\_ https://cran.r-project.org/package=ascii
- Hlavac, Marek (2013): \_stargazer: LaTeX code for well-formatted regression and summary statistics tables.\_ https://cran.r-project.org/package=stargazer

22 pander

#### **Examples**

```
## Vectors
pander(1:10)
pander(letters)
pander(mtcars$am)
pander(factor(mtcars$am))
## Lists
pander(list(1, 2, 3, c(1, 2)))
pander(list(a = 1, b = 2, c = table(mtcars$am)))
pander(list(1, 2, 3, list(1, 2)))
pander(list(a = 1, 2, 3, list(1, 2)))
pander(list('F00', letters[1:3], list(1:5), table(mtcars$gear), list('F00BAR', list('a', 'b'))))
pander(list(a = 1, b = 2, c = table(mtcars$am), x = list(myname = 1, 2), 56))
pander(unclass(chisq.test(table(mtcars$am, mtcars$gear))))
## Arrays
pander(mtcars)
pander(table(mtcars$am))
pander(table(mtcars$am, mtcars$gear))
## Tests
pander(ks.test(runif(50), runif(50)))
pander(chisq.test(table(mtcars$am, mtcars$gear)))
pander(t.test(extra ~ group, data = sleep))
## Models
ml <- with(lm(mpg ~ hp + wt), data = mtcars)</pre>
pander(ml)
pander(anova(ml))
pander(aov(ml))
## Dobson (1990) Page 93: Randomized Controlled Trial (examples from: ?glm)
counts <- c(18, 17, 15, 20, 10, 20, 25, 13, 12)
outcome \leftarrow gl(3, 1, 9)
treatment \leftarrow gl(3, 3)
m <- glm(counts ~ outcome + treatment, family = poisson())</pre>
pander(m)
pander(anova(m))
pander(aov(m))
## overwriting labels
pander(lm(Sepal.Width ~ Species, data = iris), covariate.labels = c('Versicolor', 'Virginica'))
## Prcomp
pander(prcomp(USArrests))
## Others
pander(density(runif(10)))
pander(density(mtcars$hp))
## default method
x <- chisq.test(table(mtcars$am, mtcars$gear))</pre>
```

pander.anova 23

```
class(x) <- 'I heave never heard of!'
pander(x)</pre>
```

pander.anova

Pander method for anova class

#### **Description**

Prints an anova object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'anova'
pander(x, caption = attr(x, "caption"),
  add.significance.stars = FALSE, ...)
```

#### **Arguments**

```
x an anova object
caption caption (string) to be shown under the table
add.significance.stars
if significance stars should be shown for P value
optional parameters passed to raw pandoc.table function
```

pander.aov

Pander method for aov class

### **Description**

Prints an aov object in Pandoc's markdown.

### Usage

```
## S3 method for class 'aov'
pander(x, caption = attr(x, "caption"), ...)
```

#### **Arguments**

```
x an aov objectcaption (string) to be shown under the table... optional parameters passed to raw pandoc.table function
```

24 pander.Arima

		٦	÷	~+	
pander	aov	Т	Τ	Sι	

Pander method for aovlist class

# Description

Prints an aovlist object in Pandoc's markdown.

# Usage

```
## S3 method for class 'aovlist'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

x an aovlist object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.Arima

Prints an arima object from stats package in Pandoc's markdown.

# Description

Prints an arima object from stats package in Pandoc's markdown.

### Usage

```
## S3 method for class 'Arima'
pander(x, digits = panderOptions("digits"), se = TRUE,
...)
```

# Arguments

X	an arima object
digits	number of digits of precision
se	if to include standard error in coefficients table (default TRUE)
	optional parameters passed to raw pandoc.table function

pander.call 25

pander.call

Pander method for call class

# Description

Prints a call object in Pandoc's markdown.

# Usage

```
## S3 method for class 'call'
pander(x, ...)
```

### **Arguments**

x a call object

... optional parameters passed to raw pandoc.formula function

pander.cast\_df

Pander method for cast\_df class

# Description

Prints a cast\_df object in Pandoc's markdown.

### Usage

```
## S3 method for class 'cast_df'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

```
x a cast_df object
```

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

26 pander.clogit

pander.character

Pander method for character class

# Description

Prints a character class in Pandoc's markdown.

# Usage

```
## S3 method for class 'character'
pander(x, ...)
```

### **Arguments**

x a character object... igroned parameters

pander.clogit

Pander method for clogit class

# Description

Prints a clogit object in Pandoc's markdown.

### Usage

```
## S3 method for class 'clogit'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

```
x an clogit object
```

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.coxph 27

pander.coxph Pander method for coxph class
--

# Description

Prints a coxph object in Pandoc's markdown.

### Usage

```
## S3 method for class 'coxph'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

x an coxph object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.cph Prints an cph object from rms package in Pandoc's markdown.

# Description

Prints an cph object from rms package in Pandoc's markdown.

### Usage

```
## S3 method for class 'cph'
pander(x, table = TRUE, conf.int = FALSE, coefs = TRUE,
...)
```

### **Arguments**

X	an cph object
table	if to print event frequency statistics. default(TRUE)
conf.int	set to e.g95 to print $0.95$ confidence intervals on simple hazard ratios (which are usually meaningless as one-unit changes are seldom relevant and most models contain multiple terms per predictor)
coefs	if to the table of model coefficients, standard errors, etc. default(TRUE)
• • •	optional parameters passed to raw pandoc.table function

28 pander.data.frame

pander.CrossTable

Pander method for CrossTable class

# Description

Prints a CrossTable object in Pandoc's markdown.

### Usage

```
## $3 method for class 'CrossTable'
pander(x, caption = attr(x, "caption"),
  digits = panderOptions("digits"), total.r = x$total.r,
  total.c = x$total.c, ...)
```

### Arguments

X	a Cross Table object
caption	caption (string) to be shown under the table
digits	number of digits of precision
total.r	if to print row totals. Default values is taken from CrossTable object
total.c	if to print column totals. Default values is taken from CrossTable object
	optional parameters passed to raw pandoc.table function

pander.data.frame

Pander method for data.frame class

# Description

Prints a data.frame object in Pandoc's markdown.

### Usage

```
## S3 method for class 'data.frame'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

x a data.frame object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.data.table 29

pander.data.table

Pander method for data.table class

### **Description**

Prints a data.table object in Pandoc's markdown. Data.tables drop attributes (like row names) when called.

### Usage

```
## $3 method for class 'data.table'
pander(x, caption = attr(x, "caption"),
   keys.as.row.names = TRUE, ...)
```

# **Arguments**

```
x a data.table object
caption caption (string) to be shown under the table
keys.as.row.names
controls whether to use data.table key as row names when calling pandoc.table
optional parameters passed to raw pandoc.table function
```

pander.Date

Pander method for Date class

# Description

Prints a Date object in Pandoc's markdown.

### Usage

```
## S3 method for class 'Date'
pander(x, ...)
```

### **Arguments**

```
x a Date object
```

... optional parameters passed to raw pandoc.date function

pander.density

pander.default

Default Pander method

# Description

Method to be used, when no exact S3 method for given object is found. Tries to render object as a list

# Usage

```
## Default S3 method:
pander(x, ...)
```

# Arguments

x an object

... optional parameters passed to raw pandoc.list function

pander.density

Pander method for density class

### **Description**

Prints a density object in Pandoc's markdown.

### Usage

```
## S3 method for class 'density'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

x a density object

caption caption (string) to be shown under the table

. . . optional parameters passed to raw pandoc.table function

pander.describe 31

pander.describe

Pander method for describe class

### **Description**

Prints a describe object in Pandoc's markdown.

# Usage

```
## S3 method for class 'describe'
pander(x, caption = attr(x, "caption"),
   digits = panderOptions("digits"), ...)
```

# Arguments

x an describe object

caption caption (string) to be shown under the table

digits number of digits of precision

... optional parameters passed to raw pandoc.table function

pander.ets

Prints an ets object from forecast package in Pandoc's markdown.

# Description

Prints an ets object from forecast package in Pandoc's markdown.

# Usage

```
## S3 method for class 'ets'
pander(x, digits = panderOptions("digits"), ...)
```

#### **Arguments**

```
x an ets object
```

digits number of digits of precision

... optional parameters passed to raw pandoc.table function

pander.factor

pander.evals

Pander method for evals class

# Description

Prints a evals object in Pandoc's markdown.

# Usage

```
## S3 method for class 'evals'
pander(x, ...)
```

### **Arguments**

x a evals object

... ignored parameters

pander.factor

Pander method for factor class

# Description

Prints a factor object in Pandoc's markdown.

# Usage

```
## S3 method for class 'factor' pander(x, ...)
```

# Arguments

x a factor object

... igroned parameters

pander.formula 33

pander.formula

Pander method for formula class

# Description

Prints a formula object in Pandoc's markdown.

### Usage

```
## S3 method for class 'formula'
pander(x, max.width = 80, caption = attr(x,
    "caption"), ...)
```

# Arguments

Х	a formula object
max.width	maximum width in characters per line
caption	caption (string) to be shown under the formula
	optional parameters passed to raw pandoc.formula function

pander.ftable

Pander method for ftable class

# Description

Prints a ftable object in Pandoc's markdown.

# Usage

```
## S3 method for class 'ftable' pander(x, ...)
```

# Arguments

x a ftable object

... optional parameters passed to raw pandoc.table function

34 pander.Glm

pander.function

Pander method for function class

### **Description**

Prints an function object in Pandoc's markdown.

# Usage

```
## S3 method for class 'function'
pander(x, add.name = FALSE, verbatim = TRUE,
    syntax.highlighting = FALSE, ...)
```

### **Arguments**

pander.Glm

Prints an Grm object from rms package in Pandoc's markdown.

# Description

Prints an Grm object from rms package in Pandoc's markdown.

#### Usage

```
## S3 method for class 'Glm'
pander(x, coefs = TRUE, ...)
```

### Arguments

```
x an Grm object
coefs if to the table of model coefficients, standard errors, etc. default(TRUE)
... optional parameters passed to raw pandoc.table function
```

pander.glm 35

pander.glm

Pander method for summary.glm class

# Description

Prints a summary.glm object in Pandoc's markdown.

### Usage

```
## S3 method for class 'glm'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

x a summary.glm object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.gtable

Pander method for gtable class

# Description

Renders an gtable object in Pandoc's markdown.

### Usage

```
## S3 method for class 'gtable'
pander(x, zsort = FALSE, ...)
```

#### **Arguments**

x an gtable object

zsort Sort by z values? Default FALSE

optional parameters passed to raw pandoc.table function

36 pander.image

pand	er	hte	ct

Pander method for htest class

# Description

Prints a htest object in Pandoc's markdown.

# Usage

```
## S3 method for class 'htest'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

x a htest object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.image

Pander method for image class

# Description

Prints a image object in Pandoc's markdown.

### Usage

```
## $3 method for class 'image'
pander(x, caption = attr(x, "caption"), href = attr(x,
   "href"), ...)
```

# Arguments

x a image object

caption caption (string) to be shown under the table

href link that image should be linked with

... ignored parameters

pander.irts 37

pander.irts

Prints an irts object from tseries package in Pandoc's markdown.

# Description

Prints an irts object from tseries package in Pandoc's markdown.

### Usage

```
## S3 method for class 'irts'
pander(x, caption = attr(x, "caption"),
  format = panderOptions("date"), ...)
```

### Arguments

x an irts object
 caption (string) to be shown under the table
 format string passed to format when printing dates (POSIXct or POSIXt)
 ... optional parameters passed to raw pandoc.table function

pander.list

Pander method for list class

# Description

Prints a list object in Pandoc's markdown.

### Usage

```
## S3 method for class 'list' pander(x, ...)
```

# Arguments

x a list object

... ignored parameters

38 pander.lme

pander.lm

Pander method for summary.lm class

### **Description**

Prints a summary.lm object in Pandoc's markdown.

# Usage

```
## S3 method for class 'lm'
pander(x, caption = attr(x, "caption"), covariate.labels,
  omit, ...)
```

### Arguments

```
x a summary.glm object
caption caption (string) to be shown under the table
covariate.labels
vector to replace covariate lables in the table
omit vector of variable to omit for priting in resulting table
... optional parameters passed to raw pandoc.table function
```

pander.lme

Pander method for lme class

# Description

Prints a lme object in Pandoc's markdown.

### Usage

```
## S3 method for class 'lme'
pander(x, caption = attr(x, "caption"), ...)
```

```
x a lme object
caption caption (string) to be shown under the table
... optional parameters passed to raw pandoc.table function
```

pander.logical 39

pander.logical

Pander method for logical class

# Description

Prints a logical object in Pandoc's markdown.

# Usage

```
## S3 method for class 'logical'
pander(x, ...)
```

### **Arguments**

x a logical object

pander.lrm

Prints an lrm object from rms package in Pandoc's markdown.

# Description

Prints an lrm object from rms package in Pandoc's markdown.

ignored parameters

# Usage

```
## S3 method for class 'lrm'
pander(x, coefs = TRUE, ...)
```

### **Arguments**

x an lrm object

 $coefs \hspace{1cm} if to the table of model coefficients, standard errors, etc. \ default(TRUE) \\$ 

... optional parameters passed to raw pandoc.table function

40 pander.matrix

pander.manova

Pander method for manova class

### **Description**

Prints an manova object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'manova'
pander(x, caption = attr(x, "caption"),
   add.significance.stars = FALSE, ...)
```

### **Arguments**

```
x an manovy object
caption caption (string) to be shown under the table
add.significance.stars
if significance stars should be shown for P value
optional parameters passed to raw pandoc.table function
```

pander.matrix

Pander method for matrix class

### **Description**

Prints a matrix object in Pandoc's markdown.

### Usage

```
## S3 method for class 'matrix'
pander(x, caption = attr(x, "caption"), ...)
```

# **Arguments**

```
x a matrix object
```

caption caption (string) to be shown under the table

optional parameters passed to raw pandoc.table function

pander.microbenchmark 41

pander.microbenchmark Pander method for microbenchmark class

# Description

Prints an microbenchmark object in Pandoc's markdown.

# Usage

```
## S3 method for class 'microbenchmark'
pander(x, caption = attr(x, "caption"),
   expr.labels, unit, ...)
```

# Arguments

Χ	an microbenchmark object
caption	caption (string) to be shown under the table
expr.labels	expression labels that will replace default ones (similar to rownames, which microbenchmark class table does not have)
unit	units in which values should be printed (for example second, microseconds, etc.). Should be one of ns, us, ms, s, t, hz, khz, mhz, eps, $f$
	optional parameters passed to raw pandoc.table function

pander name Pander method for name class	pander.name	Pander method for name class
--	-------------	------------------------------

# Description

Prints a call object in Pandoc's markdown.

### Usage

```
## S3 method for class 'name'
pander(x, ...)
```

```
x a name language object... ignored parameters
```

42 pander.NULL

pander.nls

Prints an nls object from stats package in Pandoc's markdown.

# Description

Prints an nls object from stats package in Pandoc's markdown.

## Usage

```
## S3 method for class 'nls'
pander(x, digits = panderOptions("digits"),
    show.convergence = FALSE, ...)
```

### Arguments

pander.NULL

Pander method for a NULL object

### **Description**

Prints a NULL object in Pandoc's markdown.

# Usage

```
## S3 method for class 'NULL'
pander(x, ...)
```

# Arguments

```
x a NULL object
```

... ignored parameters

pander.numeric 43

pander.numeric	Pander method for numeric class

# Description

Prints a numeric class in Pandoc's markdown.

# Usage

```
## S3 method for class 'numeric'
pander(x, ...)
```

# Arguments

x a numeric object... igroned parameter

pander.ols

Prints an ols object from rms package in Pandoc's markdown.

# Description

Prints an ols object from rms package in Pandoc's markdown.

# Usage

```
## S3 method for class 'ols'
pander(x, long = FALSE, coefs = TRUE,
   digits = panderOptions("digits"), round = panderOptions("round"),
   ...)
```

X	an ols object
long	if to print the correlation matrix of parameter estimates. default(FALSE)
coefs	if to the table of model coefficients, standard errors, etc. default(TRUE)
digits	passed to format. Can be a vector specifying values for each column (has to be the same length as number of columns).
round	passed to round. Can be a vector specifying values for each column (has to be the same length as number of columns). Values for non-numeric columns will be disregarded.
	optional parameters passed to raw pandoc.table function

44 pander.polr

pander.orm	Prints an orm object from rms package in Pandoc's markdown.	

# Description

Prints an orm object from rms package in Pandoc's markdown.

# Usage

```
## S3 method for class 'orm'
pander(x, coefs = TRUE, intercepts = x$non.slopes < 10,
    ...)</pre>
```

# Arguments

Χ	an orm object
coefs	if to the table of model coefficients, standard errors, etc. default(TRUE)
intercepts	if to print intercepts, by default, intercepts are only printed if there are fewer than $10\ \mathrm{of}\ \mathrm{them}$
	optional parameters passed to raw pandoc.table function

pander.polr

Prints an polr object from MASS package in Pandoc's markdown.

# Description

Prints an polr object from MASS package in Pandoc's markdown.

# Usage

```
## S3 method for class 'polr' pander(x, ...)
```

# Arguments

x an polr object

... optional parameters passed to raw pandoc.table function

pander.POSIXct 45

pander.POSIXct

Pander method for POSIXct class

# Description

Prints a POSIXct object in Pandoc's markdown.

### Usage

```
## S3 method for class 'POSIXct'
pander(x, ...)
```

### **Arguments**

x a POSIXct object

... optional parameters passed to raw pandoc.date function

pander.POSIXlt

Pander method for POSIXIt class

# Description

Prints a POSIXIt object in Pandoc's markdown.

# Usage

```
## S3 method for class 'POSIX1t' pander(x, ...)
```

#### **Arguments**

x a POSIXIt object

... optional parameters passed to raw pandoc.date function

46 pander.randomForest

pander.prcomp

Pander method for prcomp class

# Description

Prints a prcomp object in Pandoc's markdown.

### Usage

```
## S3 method for class 'prcomp'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

x a prcomp object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.random Forest

Pander method for randomForest class

# Description

Renders an randomForest object in Pandoc's markdown.

### Usage

```
## S3 method for class 'randomForest'
pander(x, digits = panderOptions("digits"), ...)
```

#### **Arguments**

x an randomForest object

digits number of digits of precision

... optional parameters passed to raw pandoc.table function

pander.rapport 47

pander.rapport

Pander method for rapport class

# Description

Prints a rapport object in Pandoc's markdown.

# Usage

```
## S3 method for class 'rapport'
pander(x, ...)
```

### Arguments

x a rapport object... ignored parameters

pander.rlm

Pander method for rlm class

# Description

Prints an rlm object in Pandoc's markdown.

### Usage

```
## S3 method for class 'rlm'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

```
x an rlm object
```

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

48 pander.smooth.spline

pander.sessionInfo

Pander method for sessionInfo class

# Description

Prints an sessionInfo object in Pandoc's markdown.

### Usage

```
## S3 method for class 'sessionInfo'
pander(x, locale = TRUE, compact = TRUE, ...)
```

### **Arguments**

x an sessionInfo object

locale (defaut:TRUE) if to print locale output

compact (defaut:TRUE) if output shoud be compact (ommitting extra line breaks and spaces,

inline printing of lists)

... ignored parameters

pander.smooth.spline Pander method for smooth.spline class

# Description

Prints an smooth.spline object in Pandoc's markdown.

### Usage

```
## S3 method for class 'smooth.spline'
pander(x, ...)
```

# Arguments

x an smooth.spline object

... igroned parameters

pander.stat.table 49

pander.stat.table

Pander method for stat.table class

# Description

Prints an stat.table object in Pandoc's markdown.

### Usage

```
## S3 method for class 'stat.table'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

x an stat.table object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.summary.aov

Pander method for summary.aov class

### **Description**

Prints a summary.aov object in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.aov'
pander(x, caption = attr(x, "caption"), ...)
```

#### **Arguments**

x a summary.aov object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

50 pander.summary.glm

```
pander.summary.aovlist
```

Pander method for summary.aovlist class

### **Description**

Prints a summary.aovlist object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'summary.aovlist'
pander(x, caption = attr(x, "caption"), ...)
```

#### Arguments

x a summary.aovlist object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.summary.glm

Pander method for summary.glm class

#### **Description**

Prints a summary.glm object in Pandoc's markdown.

#### Usage

```
## $3 method for class 'summary.glm'
pander(x, caption = attr(x, "caption"),
    covariate.labels, omit, summary = TRUE, ...)
```

### **Arguments**

x an summary.glm object

caption caption (string) to be shown under the table

covariate.labels

vector to replace covariate lables in the table

omit vector of variable to omit for priting in resulting table

summary (defaut:TRUE) if used for summary.lm or lm

... optional parameters passed to special methods and/or raw pandoc.\* functions

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

pander.summary.lm 51

pander.summary.lm

Pander method for summary.lm class

#### **Description**

Prints a summary.lm object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'summary.lm'
pander(x, caption = attr(x, "caption"),
  covariate.labels, omit, summary = TRUE,
  add.significance.stars = FALSE, move.intercept = FALSE, ...)
```

### **Arguments**

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

pander.summary.lme

Pander method for summary.lme class

#### **Description**

Prints a lme object in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.lme'
pander(x, caption = attr(x, "caption"),
   summary = TRUE, ...)
```

52 pander.summary.nls

#### **Arguments**

X	a lme object
caption	caption (string) to be shown under the table
summary	(default:TRUE) if to print expender summary
	optional parameters passed to raw pandoc.table function

pander.summary.manova Prints an summary.manova object from stats package in Pandoc's markdown.

### **Description**

Prints an summary.manova object from stats package in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.manova'
pander(x, caption = attr(x, "caption"),
   add.significance.stars = FALSE, ...)
```

#### Arguments

```
x an summary.manova object
caption caption (string) to be shown under the table
add.significance.stars
if significance stars should be shown for P value
optional parameters passed to raw pandoc.table function
```

# Description

Prints an summary.nls object from stats package in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.nls'
pander(x, summary = TRUE,
   add.significance.stars = FALSE, digits = panderOptions("digits"),
   show.convergence = FALSE, ...)
```

pander.summary.polr 53

### **Arguments**

#### **Description**

Prints an summary.polr object from MASS package in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.polr'
pander(x, digits = panderOptions("digits"),
  round = panderOptions("round"),
  keep.trailing.zeros = panderOptions("keep.trailing.zeros"), ...)
```

```
x an summary.polr object

digits number of digits of precision passed to format

round number of rounding digits passed to round

keep.trailing.zeros

to show or remove trailing zeros in numbers on a column basis width

... optional parameters passed to raw pandoc.table function
```

54 pander.summary.rms

pander.summary.prcomp Pander method for summary.prcomp class

### **Description**

Prints a summary.prcomp object in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.prcomp'
pander(x, caption = attr(x, "caption"),
   summary = TRUE, ...)
```

### Arguments

x a summary.prcomp object
 caption (string) to be shown under the table
 summary (default:TRUE) if extended summary should be printed
 optional parameters passed to raw pandoc.table function

pander.summary.rms

Prints an summary.rms from rms package in Pandoc's markdown.

# Description

Prints an summary.rms from rms package in Pandoc's markdown.

### Usage

```
## S3 method for class 'summary.rms' pander(x, \ldots)
```

# Arguments

x an summary.rms object

... optional parameters passed to raw pandoc.table function

pander.summary.survreg 55

```
pander.summary.survreg
```

Prints an survreg object from survival package in Pandoc's markdown.

### **Description**

Prints an survreg object from survival package in Pandoc's markdown.

#### Usage

```
## $3 method for class 'summary.survreg'
pander(x, summary = TRUE,
   digits = panderOptions("digits"), round = panderOptions("round"),
   keep.trailing.zeros = panderOptions("keep.trailing.zeros"), ...)
```

#### **Arguments**

```
x an survreg object
summary if summary should be printed
digits number of digits of precision passed to format
round number of rounding digits passed to round
keep.trailing.zeros
to show or remove trailing zeros in numbers on a column basis width
```

optional parameters passed to raw pandoc.table function

```
pander.summary.table Pander method for summary.table class
```

### **Description**

Renders an summary.table object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'summary.table'
pander(x, caption = attr(x, "caption"),
    print.call = T, ...)
```

```
x an function object
caption caption (string) to be shown under the table
print.call (defaut:TRUE) if call should be printed
... optional parameters passed to raw pandoc.table function
```

56 pander.survfit

pander.survdiff

Pander method for survdiff class

#### **Description**

Prints an survdiff object in Pandoc's markdown.

### Usage

```
## S3 method for class 'survdiff'
pander(x, caption = attr(x, "caption"), ...)
```

#### **Arguments**

x an survdiff object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

pander.survfit

Pander method for survfit class

# Description

Prints an survfit object in Pandoc's markdown.

#### Usage

```
## $3 method for class 'survfit'
pander(x, caption = attr(x, "caption"), scale = 1,
    print.rmean = getOption("survfit.print.rmean"),
    rmean = getOption("survfit.rmean"), ...)
```

# **Arguments**

the result of a call to the survfit function.

caption caption (string) to be shown under the table

scale a numeric value to rescale the survival time, e.g., if the input data to survfit were in days, scale=365 would scale the printout to years.

print.rmean, rmean options for computation and display of the restricted mean

optional parameters passed to raw pandoc.table function

pander.survreg 57

pander.survreg

Prints an survreg object from survival package in Pandoc's markdown.

# Description

Prints an survreg object from survival package in Pandoc's markdown.

# Usage

```
## S3 method for class 'survreg'
pander(x, ...)
```

### **Arguments**

x an survreg object

... optional parameters passed to raw pandoc.table function

pander.table

Pander method for table class

# Description

Prints a table object in Pandoc's markdown.

### Usage

```
## S3 method for class 'table'
pander(x, caption = attr(x, "caption"), ...)
```

# Arguments

```
x a table object
```

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

58 pander.ts

pander.tabular

Pander method for tabular class

### **Description**

Renders an tabular object in Pandoc's markdown.

# Usage

```
## S3 method for class 'tabular'
pander(x, caption = attr(x, "caption"),
   emphasize.rownames = TRUE, digits = panderOptions("digits"), ...)
```

### **Arguments**

pander.ts

Pander method for timeseries class

### Description

Prints a timeseries object in Pandoc's markdown.

### Usage

```
## S3 method for class 'ts'
pander(x, caption = attr(x, "caption"), ...)
```

```
x a timeseries objectcaption (string) to be shown under the table... optional parameters passed to raw pandoc.table function
```

pander.zoo 59

nai	nder	700

Pander method for zoo class

### Description

Prints a zoo object in Pandoc's markdown.

#### Usage

```
## S3 method for class 'zoo'
pander(x, caption = attr(x, "caption"), ...)
```

### **Arguments**

x an zoo object

caption caption (string) to be shown under the table

... optional parameters passed to raw pandoc.table function

panderOptions

Querying/setting pander option

### Description

To list all pander options, just run this function without any parameters provided. To query only one value, pass the first parameter. To set that, use the value parameter too.

### Usage

```
panderOptions(o, value)
```

#### **Arguments**

o option name (string). See below. value value to assign (optional)

#### **Details**

The following pander options are available:

- digits: numeric (default: 2) passed to format. Can be a vector specifying values for each column (has to be the same length as number of columns). Values for non-numeric columns will be disregarded.
- decimal.mark: string (default: .) passed to format

60 panderOptions

• formula.caption.prefix: string (default: 'Formula: ') passed to pandoc.formula to be used as caption prefix. Be sure about what you are doing if changing to other than 'Formula: ' or ':'.

- big.mark: string (default: ") passed to format.
- round: numeric (default: Inf) passed to round. Can be a vector specifying values for each column (has to be the same length as number of columns). Values for non-numeric columns will be disregarded.
- keep.trailing.zeros: boolean (default: FALSE) to show or remove trailing zeros in numbers
- keep.line.breaks: boolean (default: FALSE) to keep or remove line breaks from cells in a table
- missing: string (default: NA) to replace missing values in vectors, tables etc.
- date: string (default: '%Y/%m/%d %X') passed to format when printing dates (POSIXct or POSIXt)
- header.style: 'atx' or 'setext' passed to pandoc.header
- list.style: 'bullet', 'ordered' or 'roman' passed to pandoc.list. Please not that this has no effect on pander methods.
- table.style: 'multiline', 'grid', 'simple' or 'rmarkdown' passed to pandoc.table
- table.emphasize.rownames: boolean (default: TRUE) if row names should be highlighted
- table.split.table: numeric passed to pandoc.table and also affects pander methods. This option tells pander where to split too wide tables. The default value (80) suggests the conventional number of characters used in a line, feel free to change (e.g. to Inf to disable this feature) if you are not using a VT100 terminal any more:)
- table.split.cells: numeric or numeric vector (default: 30) passed to pandoc.table and also affects pander methods. This option tells pander where to split too wide cells with line breaks. Numeric vector specifies values for cells separately. Set Inf to disable.
- table.caption.prefix: string (default: 'Table: ') passed to pandoc.table to be used as caption prefix. Be sure about what you are doing if changing to other than 'Table: ' or ':'.
- table.continues: string (default: 'Table continues below') passed to pandoc.table to be used as caption for long (split) without a use defined caption
- table.continues.affix: string (default: '(continued below)') passed to pandoc.table to be used as an affix concatenated to the user defined caption for long (split) tables
- table.alignment.default: string (default: centre) that defines the default alignment of cells. Can be left, right or centre that latter can be also spelled as center.
- table.alignment.rownames: string (default: centre) that defines the alignment of rownames in tables. Can be left, right or centre that latter can be also spelled as center.
- use.hyphening: boolean (default: FALSE) if try to use hyphening when splitting large cells according to table.split.cells. Requires **sylly**.
- evals.messages: boolean (default: TRUE) passed to evals' pander method specifying if messages should be rendered
- p.wrap: a string (default: '\_') to wrap vector elements passed to p function
- p. sep: a string (default: ', ') with the main separator passed to p function
- p.copula: a string (default: ' and ') with ending separator passed to p function

panderOptions 61

- plain.ascii: boolean (default: FALSE) to define if output should be in plain ascii or not
- graph.nomargin: boolean (default: TRUE) if trying to keep plots' margins at minimal
- graph.fontfamily: string (default: 'sans') specifying the font family to be used in images. Please note, that using a custom font on Windows requires grDevices:::windowsFonts first.
- graph.fontcolor: string (default: 'black') specifying the default font color
- graph.fontsize: numeric (default: 12) specifying the *base* font size in pixels. Main title is rendered with 1.2 and labels with 0.8 multiplier.
- graph.grid: boolean (default: TRUE) if a grid should be added to the plot
- graph.grid.minor: boolean (default: TRUE) if a miner grid should be also rendered
- graph.grid.color: string (default: 'grey') specifying the color of the rendered grid
- graph.grid.lty: string (default: 'dashed') specifying the line type of grid
- graph.boxes: boolean (default: FALSE) if to render a border around of plot (and e.g. around strip)
- graph.legend.position: string (default: 'right') specifying the position of the legend: 'top', 'right', 'bottom' or 'left'
- graph.background: string (default: 'white') specifying the plots main background's color
- graph.panel.background: string (default: 'transparent') specifying the plot's main panel background. Please *note*, that this option is not supported with base graphics.
- graph.colors: character vector of default color palette (defaults to a colorblind theme: <a href="http://jfly.iam.u-tokyo.ac.jp/color/">http://jfly.iam.u-tokyo.ac.jp/color/</a>). Please *note* that this update work with base plots by appending the col argument to the call if not set.
- graph.color.rnd: boolean (default: FALSE) specifying if the palette should be reordered randomly before rendering each plot to get colorful images
- graph.axis.angle: numeric (default: 1) specifying the angle of axes' labels. The available options are based on par(les) and sets if the labels should be:
  - 1: parallel to the axis,
  - 2: horizontal.
  - 3: perpendicular to the axis or
  - 4: vertical.
- graph. symbol: numeric (default: 1) specifying a symbol (see the pch parameter of par)
- knitr.auto.asis: boolean (default: TRUE) if the results of pander should be considered as 'asis' in knitr. Equals to specifying results='asis' in the R chunk, so thus there is no need to do so if set to TRUE.
- pandoc.binary: full path of pandoc's binary. By default, pandoc is in the path.

### See Also

62 Pandoc-class

#### **Examples**

```
## Not run:
panderOptions()
panderOptions('digits')
panderOptions('digits', 5)
## End(Not run)
```

pander\_return

Pander and capture output

### **Description**

This is a wrapper function around pander but instead of printing to stdout, this function returns a character vector of the captured lines.

#### Usage

```
pander_return(...)
```

#### Arguments

... everything passed to pander

### See Also

pander

Pandoc-class

Reporting with Pandoc

### **Description**

This R5 reference class can hold bunch of elements (text or R objects) from which it tries to create a Pandoc's markdown text file. Exporting the report to several formats (like: PDF, docx, odt etc. - see Pandoc's documentation) is also possible, see examples below.

### **Arguments**

this is an R5 object without any direct params but it should be documented, right?

### Methods

export(Class) Returns the result of coercing the object to Class. No effect on the object itself.

Pandoc-class 63

#### **Examples**

```
## Initialize a new Pandoc object
myReport <- Pandoc$new()</pre>
## Add author, title and date of document
myReport$author <- 'Anonymous'</pre>
myReport$title <- 'Demo'</pre>
## Or it could be done while initializing
myReport <- Pandoc$new('Anonymous', 'Demo')</pre>
## Add some free text
myReport$add.paragraph('Hello there, this is a really short tutorial!')
## Add maybe a header for later stuff
myReport$add.paragraph('# Showing some raw R objects below')
## Adding a short matrix
myReport$add(matrix(5,5,5))
## Or a table with even # TODO: caption
myReport$add.paragraph('Hello table:')
myReport$add(table(mtcars$am, mtcars$gear))
## Or a "large" data frame which barely fits on a page
myReport$add(mtcars)
## And a simple linear model with Anova tables
ml <- with(lm(mpg ~ hp + wt), data = mtcars)</pre>
myReport$add(ml)
myReport$add(anova(ml))
myReport$add(aov(ml))
## And do some principal component analysis at last
myReport$add(prcomp(USArrests))
## Sorry, I did not show how Pandoc deals with plots:
myReport$add(plot(1:10)) # TODO: caption
## Want to see the report? Just print it:
myReport
## Exporting to PDF (default)
myReport$export()
## Or to docx in tempdir:
myReport$format <- 'docx'
myReport$export(tempfile())
## You do not want to see the generated report after generation?
myReport$export(open = FALSE)
```

Pandoc.brew

```
## End(Not run)
```

# Description

This function behaves just like brew except for the <%:...%> tags, where Pandoc.brew first translate the R object found between the tags to Pandoc's markdown before passing to the cat function.

# Usage

```
Pandoc.brew(file = stdin(), output = stdout(), convert = FALSE,
  open = TRUE, graph.name, graph.dir, graph.hi.res = FALSE,
  text = NULL, envir = parent.frame(), append = FALSE, ...)
```

# Arguments

file	file path of the brew template. As this is passed to readLines, file could be an URL too, but not over SSL (for that latter RCurl would be needed).
output	(optional) file path of the output file
convert	string: format of required output document (besides Pandoc's markdown). Pandoc is called if set via Pandoc.convert and the converted document could be also opened automatically (see below).
open	try to open converted document with operating system's default program
graph.name	character string (default to %t when output is set to stdout and paste0(basename(output), '-%n') otherwise) passed to evals. Besides evals's possible tags %i is also available which would be replaced by the chunk number (and optionally an integer which would handle nested brew calls) and %I with the order of the current expression.
graph.dir	character string (default to tempdir() when output is set to stdout and dirname(graph.name) otherwise) passed to evals
graph.hi.res	render high resolution images of plots? Default is FALSE except for HTML output.
text	character vector (treated as the content of the file
envir	environment where to brew the template
append	should append or rather overwrite (default) the output markdown text file? Please note that this option only affects the markdown file and not the optionally created other formats.

additional parameters passed to Pandoc.convert

Pandoc.brew 65

#### **Details**

This parser tries to be smart in some ways:

• a block (R commands between the tags) could return any value at any part of the block and there are no restrictions about the number of returned R objects

- plots and images are grabbed in the document, rendered to a png file and pander method would result in a Pandoc's markdown formatted image link (so the image would be shown/included in the exported document). The images are put in plots directory in current getwd() or to the specified output file's directory.
- all warnings/messages and errors are recorded in the blocks and returned in the document as a footnote

Please see my Github page for details (http://rapporter.github.com/pander/#brew-to-pandoc) and examples (http://rapporter.github.com/pander/#examples).

#### Value

converted file name with full path if convert is set, none otherwise

#### Note

Only one of the input parameters (file or text) is to be used at once!

#### References

- Jeffrey Horner (2011). \_brew: Templating Framework for Report Generation.\_ https://cran.r-project.org/package=brew
- John MacFarlane (2012): \_Pandoc User's Guide\_. http://johnmacfarlane.net/pandoc/README.html

#### **Examples**

```
## Not run:
text <- paste('# Header', '',</pre>
  'What a lovely list:\n<%=as.list(runif(10))%>',
  'A wide table:\n<%=mtcars[1:3, ]%>',
  'And a nice chart:\n<\%=plot(1:10)\%>', sep = '\n')
Pandoc.brew(text = text)
Pandoc.brew(text = text, output = tempfile(), convert = 'html')
Pandoc.brew(text = text, output = tempfile(), convert = 'pdf')
## pi is awesome
Pandoc.brew(text='<%for (i in 1:5) {%>\n Pi has a lot (<%=i%>) of power: <%=pi^i%><%}%>')
## package bundled examples
Pandoc.brew(system.file('examples/minimal.brew', package='pander'))
Pandoc.brew(system.file('examples/minimal.brew', package='pander'),
  output = tempfile(), convert = 'html')
Pandoc.brew(system.file('examples/short-code-long-report.brew', package='pander'))
Pandoc.brew(system.file('examples/short-code-long-report.brew', package='pander'),
```

66 Pandoc.convert

```
output = tempfile(), convert = 'html')

## brew returning R objects
str(Pandoc.brew(text='Pi equals to <%=pi%>.
And here are some random data:\n<%=runif(10)%>'))

str(Pandoc.brew(text='# Header <%=1%>\nPi is <%=pi%> which is smaller then <%=2%>.
foo\nbar\n <%=3%>\n<%=mtcars[1:2,]%>'))

str(Pandoc.brew(text='<%for (i in 1:5) {%>
Pi has a lot (<%=i%>) of power: <%=pi^i%><%}%>'))

## End(Not run)
```

Pandoc.convert

Converts Pandoc to other format

#### **Description**

Calling John MacFarlane's great program to convert specified file (see f parameter below) or character vector see text parameter to other formats like HTML, pdf, docx, odt etc.

# Usage

```
Pandoc.convert(f, text, format = "html", open = TRUE, options = "",
  footer = FALSE, proc.time, portable.html = TRUE,
  pandoc.binary = panderOptions("pandoc.binary"))
```

f	Pandoc's markdown format file path. If URL is provided then the generated file's path is tempfile() but please bear in mind that this way only images with absolute path would shown up in the document.
text	Pandoc's markdown format character vector. Treated as the content of f file - so the f parameter is ignored. The generated file's path is tempfile().
format	required output format. For all possible values here check out Pandoc homepage: http://johnmacfarlane.net/pandoc/
open	try to open converted document with operating system's default program
options	optionally passed arguments to Pandoc (instead of pander's default)
footer	add footer to document with meta-information
proc.time	optionally passed number in seconds which would be shown in the generated document's footer
portable.html	instead of using local files, rather linking JS/CSS files to an online CDN for portability and including base64-encoded images if converting to ${\tt HTML}$ without custom options
pandoc.binary	path to pandoc's binary if not found in the path

pandoc.date.return 67

### Value

Converted file's path.

#### Note

This function depends on Pandoc which should be pre-installed on user's machine. See the INSTALL file of the package.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

### **Examples**

```
## Not run:
Pandoc.convert(text = c('# Demo', 'with a paragraph'))
Pandoc.convert('http://rapporter.github.io/pander/minimal.md')
# Note: the generated HTML is not showing images with relative path from the above file.
# Based on that `pdf`, `docx` etc. formats would not work! If you want to convert an
# online markdown file to other formats with this function, please pre-process the file
# to have absolute paths instead.
## End(Not run)
pandoc.date.return Dates
```

### **Description**

Pandoc's mardown date.

### Usage

```
pandoc.date.return(x, inline = TRUE, simplified = FALSE, ...)
```

#### **Arguments**

X	date or vector of dates
inline	if to render vector of dates as inline paragraph or not (as list)
simplified	if just add date formatting to vector of dates
	extra arguments passed by from parent call, disregarded

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### **Examples**

```
pandoc.date(Sys.Date())
pandoc.date(Sys.Date() - 1:10)
pandoc.date(Sys.Date() - 1:10, inline = FALSE)
```

```
pandoc.emphasis.return
```

**Emphasis** 

#### **Description**

Pandoc's markdown emphasis format (e.g. \*F00\*) is added to character string.

### Usage

```
pandoc.emphasis.return(x)
```

### **Arguments**

Х

character vector

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

### See Also

```
pandoc.strong pandoc.strikeout pandoc.verbatim
```

### **Examples**

```
pandoc.emphasis('F00')
pandoc.emphasis(c('F00', '*F00*'))
pandoc.emphasis.return('F00')
```

pandoc.footnote.return 69

```
pandoc.footnote.return
```

**Footnote** 

# Description

Creates a Pandoc's markdown format footnote.

# Usage

```
pandoc.footnote.return(x)
```

### **Arguments**

Χ

character vector

### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

### References

# **Examples**

```
pandoc.footnote('Automatically numbered footnote, right?')
```

```
pandoc.formula.return Formulas
```

### **Description**

Pandoc's mardown formula.

### Usage

```
pandoc.formula.return(x, text = NULL, max.width = 80, caption,
  add.line.breaks = FALSE, ...)
```

70 pandoc.header.return

#### **Arguments**

x formula

text to be written before result in the same line. Typically used by calls from

other functions in the package

max.width maximum width in characters per line

caption caption (string) to be shown under the formula

add.line.breaks

if to add 2 line breaks after formula

... extra arguments passed by from parent call, disregarded

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

### **Examples**

```
pandoc.formula(y ~ x) \\ pandoc.formula(formula(paste('y ~ ', paste0('x', 1:12, collapse = ' + ')))) \\
```

```
pandoc.header.return Create header
```

### Description

Creates a (Pandoc's) markdown style header with given level.

### Usage

```
pandoc.header.return(x, level = 1, style = c("atx", "setext"))
```

### **Arguments**

x character vector

level integer

style atx or setext type of heading

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

#### **Examples**

```
pandoc.header('Foo!', 4)
pandoc.header('Foo!', 2, 'setext')
pandoc.header('Foo **bar**!', 1, 'setext')
```

### **Description**

Creates a Pandoc's markdown format horizontal line with trailing and leading newlines.

### Usage

```
pandoc.horizontal.rule.return()
```

### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

### **Description**

Creates a Pandoc's markdown format image hyperlink.

### Usage

```
pandoc.image.return(img, caption = storage$caption)
```

```
img image path caption text
```

72 pandoc.indent

### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

### Note

The caption text is read from an internal buffer which defaults to NULL. To update that, call link{set.caption} before.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.
html
```

#### See Also

```
set.caption
```

### **Examples**

```
pandoc.image('foo.png')
pandoc.image('foo.png', 'Nice image, huh?')
```

pandoc.indent

Indent text

### **Description**

Indent all (optionally concatenated) lines of provided text with given level.

### Usage

```
pandoc.indent(x, level = 0)
```

# **Arguments**

```
character vector
Х
level
```

integer

### **Examples**

```
pandoc.indent('F00', 1)
pandoc.indent(pandoc.table.return(table(mtcars$gear)), 2)
cat(pandoc.indent(pandoc.table.return(table(mtcars$gear)), 3))
```

pandoc.link.return 73

pandoc.link.return

Create pandoc link Pandoc's markdown format link.

# **Description**

Create pandoc link Pandoc's markdown format link.

## Usage

```
pandoc.link.return(url, text = url)
```

## **Arguments**

url hyperlink text link text

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

John MacFarlane (2012): \_Pandoc User's Guide\_. http://johnmacfarlane.net/pandoc/README.html

# **Examples**

```
pandoc.link('http://r-project.org')
pandoc.link('http://r-project.org', 'R')
```

 $\verb"pandoc.list.return"$ 

Create a list

# **Description**

Creates a Pandoc's markdown format list from provided character vector/list.

# Usage

```
pandoc.list.return(elements, style = c("bullet", "ordered", "roman"),
  loose = FALSE, add.line.breaks = TRUE, add.end.of.list = TRUE,
  indent.level = 0, missing = panderOptions("missing"), ...)
```

74 pandoc.list.return

# **Arguments**

```
elements
                  character vector of strings
style
                  the required style of the list
loose
                  adding a newline between elements
add.line.breaks
                  adding a leading and trailing newline before/after the list
add.end.of.list
                  adding a separator comment after the list
indent.level
                  the level of indent
missing
                  string to replace missing values
                  extra arguments passed by from parent call, disregarded
. . .
```

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

#### **Examples**

```
## basic lists
pandoc.list(letters[1:5])
pandoc.list(letters[1:5])
pandoc.list(letters[1:5], 'ordered')
pandoc.list(letters[1:5], 'roman')
pandoc.list(letters[1:5], loose = TRUE)
## nested lists
1 <- list("First list element",</pre>
 rep.int('sub element', 5),
  "Second element",
 list('F', 'B', 'I', c('phone', 'pad', 'talics')))
pandoc.list(l)
pandoc.list(1, loose = TRUE)
pandoc.list(l, 'roman')
## complex nested lists
pandoc.list(list('one', as.list(2)))
pandoc.list(list('one', list('two')))
pandoc.list(list('one', list(2:3)))
```

pandoc.p.return 75

pandoc.p.return

Paragraphs

# **Description**

Pandoc's markdown paragraph.

# Usage

```
pandoc.p.return(x)
```

# **Arguments**

Χ

character vector

# Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

#### See Also

```
pandoc.emphasis pandoc.strikeout pandoc.verbatim
```

# **Examples**

```
pandoc.p('F00')
pandoc.p(c('Lorem', 'ipsum', 'lorem ipsum'))
```

```
pandoc.strikeout.return
```

Add strikeout

# Description

Pandoc's markdown strikeout format (e.g. ~~F00~~) is added to character string.

# Usage

```
pandoc.strikeout.return(x)
```

76 pandoc.strong.return

# Arguments

x character vector

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

#### See Also

```
pandoc.emphasis pandoc.strong pandoc.verbatim
```

# **Examples**

```
pandoc.strikeout('F00')
pandoc.strikeout(c('F00', '~~F00~~'))
pandoc.strikeout.return('F00')
```

```
pandoc.strong.return Strong emphasis
```

# **Description**

Pandoc's markdown strong emphasis format (e.g. \*\*F00\*\*) is added to character string.

# Usage

```
pandoc.strong.return(x)
```

#### **Arguments**

x character vector

## Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

## References

#### See Also

```
pandoc.emphasis pandoc.strikeout pandoc.verbatim
```

#### **Examples**

```
pandoc.strong('F00')
pandoc.strong(c('F00', '**F00**'))
pandoc.strong.return('F00')
```

pandoc.table.return *Create a table* 

# **Description**

Creates a Pandoc's markdown style table with optional caption and some other tweaks. See 'Details' below.

# Usage

```
pandoc.table.return(t, caption, digits = panderOptions("digits"),
  decimal.mark = panderOptions("decimal.mark"),
 big.mark = panderOptions("big.mark"), round = panderOptions("round"),
 missing = panderOptions("missing"), justify, style = c("multiline",
  "grid", "simple", "rmarkdown", "jira"),
  split.tables = panderOptions("table.split.table"),
  split.cells = panderOptions("table.split.cells"),
  keep.trailing.zeros = panderOptions("keep.trailing.zeros"),
  keep.line.breaks = panderOptions("keep.line.breaks"),
  plain.ascii = panderOptions("plain.ascii"),
  use.hyphening = panderOptions("use.hyphening"), row.names, col.names,
  emphasize.rownames = panderOptions("table.emphasize.rownames"),
  emphasize.rows, emphasize.cols, emphasize.cells, emphasize.strong.rows,
  emphasize.strong.cols, emphasize.strong.cells, emphasize.italics.rows,
  emphasize.italics.cols, emphasize.italics.cells, emphasize.verbatim.rows,
  emphasize.verbatim.cols, emphasize.verbatim.cells, ...)
```

#### **Arguments**

t	data frame, matrix or table
caption	caption (string) to be shown under the table
digits	passed to format. Can be a vector specifying values for each column (has to be the same length as number of columns).
decimal.mark	passed to format
big.mark	passed to format

round passed to round. Can be a vector specifying values for each column (has to be the same length as number of columns). Values for non-numeric columns will be disregarded. missing string to replace missing values defines alignment in cells passed to format. Can be left, right or centre, justify which latter can be also spelled as center. Defaults to centre. Can be abbreviated to a string consisting of the letters 1, c and r (e.g. 'lcr' instead of c('left', 'centre', 'right'). style which Pandoc style to use: simple, multiline, grid or rmarkdown where to split wide tables to separate tables. The default value (80) suggests the split.tables conventional number of characters used in a line, feel free to change (e.g. to Inf to disable this feature) if you are not using a VT100 terminal any more :) split.cells where to split cells' text with line breaks. Default to 30, to disable set to Inf. Can be also supplied as a vector, for each cell separately (if length(split.cells) == number of columns + 1, then first value in split.cells if for row names, and others are for columns). Supports relative (percentage) parameters in combination with split.tables. keep.trailing.zeros to show or remove trailing zeros in numbers on a column basis width keep.line.breaks (default: FALSE) if to keep or remove line breaks from cells in a table plain.ascii (default: FALSE) if output should be in plain ascii (without markdown markup) boolean (default: FALSE) if try to use hyphening when splitting large cells acuse.hyphening cording to table.split.cells. Requires sylly. row.names if FALSE, row names are suppressed. A character vector of row names can also be specified here. By default, row names are included if rownames (t) is neither NULL nor identical to 1:nrow(x)col.names a character vector of column names to be used in the table emphasize.rownames boolean (default: TRUE) if row names should be highlighted emphasize.rows deprecated for emphasize.italics.rows argument emphasize.cols deprecated for emphasize.italics.cols argument emphasize.cells deprecated for emphasize.italics.cells argument emphasize.strong.rows see emphasize.italics.rows but in bold emphasize.strong.cols see emphasize.italics.cols but in bold emphasize.strong.cells see emphasize.italics.cells but in bold emphasize.italics.rows a vector for a two dimensional table specifying which rows to emphasize

#### **Details**

This function takes any tabular data as its first argument and will try to make it pretty like: rounding and applying digits and custom decimal.mark to numbers, auto-recognizing if row names should be included, setting alignment of cells and dropping trailing zeros by default.

pandoc.table also tries to split large cells with line breaks or even the whole table to separate parts on demand. Other arguments lets the use to highlight some rows/cells/cells in the table with italic or bold text style.

For more details please see the parameters above and passed arguments of panderOptions.

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call pandoc.table.return instead.

## Note

If caption is missing, then the value is first checked in t object's caption attribute and if not found in an internal buffer set by link{set.caption}. justify parameter works similarly, see set.alignment for details.

#### References

John MacFarlane (2012): \_Pandoc User's Guide\_. http://johnmacfarlane.net/pandoc/README.html

# See Also

```
set.caption, set.alignment
```

## **Examples**

```
pandoc.table(mtcars)
# caption
pandoc.table(mtcars, 'Motor Trend Car Road Tests')
# other input/output formats
pandoc.table(mtcars[, 1:3], decimal.mark = ',')
pandoc.table(mtcars[, 1:3], decimal.mark = ',', justify = 'right')
pandoc.table(matrix(sample(1:1000, 25), 5, 5))
pandoc.table(matrix(runif(25), 5, 5))
pandoc.table(matrix(runif(25), 5, 5), digits = 5)
pandoc.table(matrix(runif(25),5,5), round = 1)
pandoc.table(table(mtcars$am))
pandoc.table(table(mtcars$am, mtcars$gear))
pandoc.table(table(state.division, state.region))
pandoc.table(table(state.division, state.region), justify = 'centre')
m \leftarrow data.frame(a = c(1, -500, 10320, 23, 77),
  b = runif(5),
  c = c('a', 'bb', 'ccc', 'dddd', 'eeeee'))
pandoc.table(m)
pandoc.table(m, justify = c('right', 'left', 'centre'))
pandoc.table(m, justify = 'rlc') # Same as upper statement
## splitting up too wide tables
pandoc.table(mtcars)
pandoc.table(mtcars, caption = 'Only once after the first part!')
## tables with line breaks in cells
## NOTE: line breaks are removed from table content in case keep.line.breaks is set to FALSE
## and added automatically based on "split.cells" parameter!
t <- data.frame(a = c('hundreds\nof\nmouses', '3 cats'), b=c('F00 is nice', 'BAR\nBAR2'))
pandoc.table(t)
pandoc.table(t, split.cells = 5)
## exporting tables in other Pandoc styles
pandoc.table(m)
pandoc.table(m, style = "grid")
pandoc.table(m, style = "simple")
pandoc.table(t, style = "grid")
pandoc.table(t, style = "grid", split.cells = 5)
tryCatch(pandoc.table(t, style = "simple", split.cells = 5),
  error = function(e) 'Yeah, no newline support in simple tables')
## highlight cells
t <- mtcars[1:3, 1:5]
pandoc.table(t$mpg, emphasize.italics.cells = 1)
pandoc.table(t$mpg, emphasize.strong.cells = 1)
pandoc.table(t$mpg, emphasize.italics.cells = 1, emphasize.strong.cells = 1)
pandoc.table(t$mpg, emphasize.italics.cells = 1:2)
pandoc.table(t$mpg, emphasize.strong.cells = 1:2)
```

pandoc.title.return 81

```
pandoc.table(t, emphasize.italics.cells = which(t > 20, arr.ind = TRUE))
pandoc.table(t, emphasize.italics.cells = which(t == 6, arr.ind = TRUE))
pandoc.table(t, emphasize.verbatim.cells = which(t == 6, arr.ind = TRUE))
pandoc.table(t, emphasize.verbatim.cells = which(t == 6, arr.ind = TRUE),
emphasize.italics.rows = 1)
## with helpers
emphasize.cols(1)
emphasize.rows(1)
pandoc.table(t)
emphasize.strong.cells(which(t > 20, arr.ind = TRUE))
pandoc.table(t)
### plain.ascii
pandoc.table(mtcars[1:3, 1:3], plain.ascii = TRUE)
### keep.line.breaks
x <- data.frame(a="Pandoc\nPackage")</pre>
pandoc.table(x)
pandoc.table(x, keep.line.breaks = TRUE)
## split.cells
x <- data.frame(a = "foo bar", b = "foo bar")</pre>
pandoc.table(x, split.cells = 4)
pandoc.table(x, split.cells = 7)
pandoc.table(x, split.cells = c(4, 7))
pandoc.table(x, split.cells = c("20%", "80%"), split.tables = 30)
y <- c("aa aa aa", "aaa aaa", "a a a a a", "aaaaa", "bbbb bbbb", "bb bbb bbbb")
y \leftarrow matrix(y, ncol = 3, nrow = 2)
rownames(y) <- c("rowname one", "rowname two")</pre>
colnames(y) <- c("colname one", "colname two", "colname three")</pre>
pandoc.table(y, split.cells = 2)
pandoc.table(y, split.cells = 6)
pandoc.table(y, split.cells = c(2, 6, 10))
pandoc.table(y, split.cells = c(2, Inf, Inf))
## first value used for rownames
pander(y, split.cells = c(5, 2, Inf, Inf))
pandoc.table(y, split.cells = c(5, 2, Inf, 5, 3, 10))
## when not enough reverting to default values
pandoc.table(y, split.cells = c(5, 2))
## split.cells with hyphenation
x < - data.frame(a = "Can be also supplied as a vector, for each cell separately",
       b = "Can be also supplied as a vector, for each cell separately")
pandoc.table(x, split.cells = 10, use.hyphening = TRUE)
```

82 pandoc.verbatim.return

## **Description**

Creates a Pandoc's markdown style title block with optional author, title and date fields.

## Usage

```
pandoc.title.return(author = "", title = "", date = "")
```

#### **Arguments**

author character vector or semicolon delimited list of authors without line break title character vector of lines of title or multiline string with \n separators date any string fit in one line

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

# **Examples**

```
pandoc.title('Tom', 'Render pandoc in R', '2012-05-16')
pandoc.title(c('Tom', 'Jerry'), 'Render pandoc in R', '2012-05-16')
pandoc.title('Tom; Jerry', 'Render pandoc in R', '2012-05-16')
pandoc.title('Tom; Jerry', c('Render', 'pandoc', 'in R'), '2012-05-16')
pandoc.title('Tom; Jerry', 'Render\n pandoc \n in R', '2012-05-16')

## missing fields

pandoc.title('Tom; Jerry', 'Render pandoc in R')
pandoc.title('Tom; Jerry')
pandoc.title(title = 'Render pandoc in R', date= '2012-05-16')

pandoc.verbatim.return

Add verbatim
```

#### **Description**

Pandoc's markdown verbatim format (e.g. `FOO`) is added to character string.

#### Usage

```
pandoc.verbatim.return(x, style = c("inline", "indent", "delim"),
  attrs = "")
```

redraw.recordedplot 83

#### **Arguments**

Х	character vector
style	show code inline or in a separate (indented or delimited) block
attrs	(optionally) pass ID, classes and any attribute to the delimited block

#### Value

By default this function outputs (see: cat) the result. If you would want to catch the result instead, then call the function ending in .return.

#### References

```
John MacFarlane (2012): _Pandoc User's Guide_. http://johnmacfarlane.net/pandoc/README.html
```

#### See Also

```
pandoc.emphasis pandoc.strikeout pandoc.strong
```

## **Examples**

```
# different styles/formats
pandoc.verbatim('F00')

src <- c('F00', 'indent', 'BAR' )
pandoc.verbatim(src)
pandoc.verbatim.return(src)
pandoc.verbatim(c('F000\nBAR ', ' I do R'), 'indent')
pandoc.verbatim(c('F000\nBAR ', ' I do R'), 'delim')

# add highlighting and HTML/LaTeX ID and classes (even custom attribute)
pandoc.verbatim(c('cat("F00")', 'mean(bar)'), 'delim', '.R #MyCode custom_var="10"')</pre>
```

redraw.recordedplot

Redraws plot saved in file

# Description

This function is a wrapper around redrawPlot.

# Usage

```
redraw.recordedplot(file)
```

#### **Arguments**

file

path and name of an rds file containing a plot object to be redrawn

84 redrawPlot

#### References

Thanks to Jeroen Ooms https://stat.ethz.ch/pipermail/r-devel/2012-January/062973. html, JJ Allaire https://github.com/rstudio/rstudio/commit/eb5f6f1db4717132c2ff111f068ffa6e8b2a5f0b, and Gabriel Becker.

#### See Also

evals

redrawPlot

Redraw a recordedplot, grid, trellis, or ggplot2 plot.

# Description

This function redraws the plot represented by rec\_plot. It can redraw grid/trellis/ggplot2/etc plots, as well as recordedplot objects. For recordedplot objects it acts as a wrapper around replayPlot with memory tweaks to fix native symbol address errors when the recordedplot was loaded from an rda/rds file.

#### Usage

```
redrawPlot(rec_plot)
```

# Arguments

rec\_plot

the plot object to redraw

#### References

Thanks to Jeroen Ooms https://stat.ethz.ch/pipermail/r-devel/2012-January/062973. html, JJ Allaire https://github.com/rstudio/rstudio/commit/eb5f6f1db4717132c2ff111f068ffa6e8b2a5f0b, and Gabriel Becker.

#### See Also

redraw.recordedplot

remove.extra.newlines 85

remove.extra.newlines Remove more then two joined newlines

# Description

Remove more then two joined newlines

# Usage

```
remove.extra.newlines(x)
```

# Arguments

Х

character vector

# **Examples**

```
remove.extra.newlines(c('\n\n', '\n\n', '\n'))
```

repChar

Repeating chars

# Description

Repeating a string n times and returning a concatenated character vector.

# Usage

```
repChar(x, n, sep = "")
```

# Arguments

x string to repeat

n integer

sep separator between repetitions

# Value

character vector

set.caption

	set.alignment	Sets alignment for tables	
--	---------------	---------------------------	--

# Description

This is a helper function to update the alignment (justify parameter in pandoc.table) of the next returning table. Possible values are: centre or center, right, left.

#### Usage

```
set.alignment(default = panderOptions("table.alignment.default"),
  row.names = panderOptions("table.alignment.rownames"),
  permanent = FALSE)
```

# **Arguments**

default character vector which length equals to one (would be repeated n times) ot n -

where n equals to the number of columns in the following table

row.names string holding the alignment of the (optional) row names

permanent (default FALSE) if alignment is permanent (for all future tables) or not. It's

cleaner to use panderOptions instead.

set.caption Adds caption in current block

# **Description**

This is a helper function to add a caption to the returning image/table.

# Usage

```
set.caption(x, permanent = FALSE)
```

## **Arguments**

x string

permanent (default FALSE) if caption is permanent (for all future tables) or not

splitLine 87

splitLine	Split line with line breaks depending on max.width	

# **Description**

This is a helper function to insert line breaks depending on (split.cells parameter of pandoc.table) of the returning table.

# Usage

```
splitLine(x, max.width = panderOptions("table.split.cells"),
  use.hyphening = FALSE)
```

# **Arguments**

x string to be split. Works only with one string. Non-string arguments and multi-

dimensional arguments are returned unchaged

max.width default integer value specyfing max number of characters between line breaks use.hyphening (default: FALSE) if try to use hyphening when splitting large cells according to

table.split.cells. Requires sylly.

# Value

character string with line breaks

## **Examples**

```
splitLine('foo bar', 6)
splitLine('foo bar', 7)
splitLine('Pandoc Package', 3, TRUE)
```

trim.spaces

Trim leading and trailing spaces

# **Description**

Trim leading and trailing spaces

#### Usage

```
trim.spaces(x)
```

## **Arguments**

x character vector

88 wrap

# Value

character vector

#### See Also

trim. space in rapport package

wrap

Wrap Vector Elements

# Description

Wraps vector elements with string provided in wrap argument.

# Usage

```
wrap(x, wrap = "\"")
```

## **Arguments**

x a vector to wrap

wrap a string to wrap around vector elements

#### Value

a string with wrapped elements

# Author(s)

Aleksandar Blagotic

## References

This function was moved from rapport package: http://rapport-package.info.

# **Examples**

```
## Not run:
wrap('foobar')
wrap(c('fee', 'fi', 'foo', 'fam'), '_')
## End(Not run)
```

# **Index**

add.blank.lines,4	pander.Arima, 24
add.significance.stars, 5	pander.call, 25
cache.off, 5	pander.cast_df, 25
cache.on(cache.off), 5	pander.character, 26
coef_mat, 6	pander.clogit, 26
coer_mat, o	pander.coxph, 27
emphasize.cells(emphasize.rows), 6	pander.cph, 27
emphasize.cols(emphasize.rows), 6	pander.CrossTable, 28
emphasize.italics.cells	pander.data.frame, 28
(emphasize.rows), 6	pander.data.table, 29
emphasize.italics.cols	pander.Date, 29
(emphasize.rows), 6	pander.default, 30
emphasize.italics.rows	pander.density, 30
(emphasize.rows), 6	pander.describe, 31
emphasize.rows, 6	pander.ets, 31
emphasize.strong.cells	pander.evals, 32
(emphasize.rows), 6	pander.factor, 32
emphasize.strong.cols(emphasize.rows),	pander.formula, 33
6	pander.ftable, 33
<pre>emphasize.strong.rows(emphasize.rows),</pre>	pander.function, 34
6	pander.Glm, 34
emphasize.verbatim.cells	pander.glm, 35
(emphasize.rows), 6	pander.gtable, 35
emphasize.verbatim.cols	pander.htest, 36
(emphasize.rows), 6	pander.image, 36
emphasize.verbatim.rows	pander.irts, 37
(emphasize.rows), 6	pander.list, 37
eval.msgs, 7, <i>13</i>	pander.lm, 38
evals, 6, 8, 9, 11, 13, 17–19, 64, 84	pander.lme, 38
evalsOptions, <i>5</i> , <i>13</i> , 17, <i>61</i>	pander.logical, 39
	pander.1rm, 39
has.rownames, 19	pander.manova, 40
openFileInOS, 19	pander.matrix, 40
openFileInos, 19	pander.microbenchmark, 41
p, 20, 20	pander.name, 41
pander, 6, 21	pander.nls, 42
pander.anova, 23	pander.NULL, 42
pander.aov, 23	pander.numeric, 43
pander.aovlist, 24	pander.ols, 43
•	•

90 INDEX

pander.orm,44	pandoc.formula.return,69
pander.polr,44	pandoc.header, $60$
pander.POSIXct, 45	pandoc.header(pandoc.header.return), 70
pander.POSIX1t,45	pandoc.header.return, 70
pander.prcomp, 46	pandoc.horizontal.rule
pander.randomForest, 46	<pre>(pandoc.horizontal.rule.return)</pre>
pander.rapport, 47	71
pander.rlm, 47	pandoc.horizontal.rule.return,71
pander.sessionInfo,48	<pre>pandoc.image (pandoc.image.return), 71</pre>
pander.smooth.spline, 48	pandoc.image.return,71
pander.stat.table,49	pandoc.indent, 72
pander.summary.aov,49	pandoc.link(pandoc.link.return), 73
pander.summary.aovlist, 50	pandoc.link.return,73
pander.summary.glm,50	pandoc.list, 60
pander.summary.lm, 51	pandoc.list(pandoc.list.return), 73
pander.summary.lme, 51	pandoc.list.return,73
pander.summary.manova, 52	pandoc.p (pandoc.p.return), 75
pander.summary.nls, 52	pandoc.p.return, 75
pander.summary.nis, 52	pandoc.strikeout, 68, 75, 77, 83
• • •	pandoc.strikeout
pander.summary.prcomp, 54	(pandoc.strikeout.return), 75
pander.summary.rms, 54	pandoc.strikeout.return,75
pander.summary.survreg, 55	pandoc.strong, 68, 76, 83
pander.summary.table, 55	pandoc.strong (pandoc.strong.return), 76
pander.survdiff, 56	pandoc.strong.return, 76
pander.survfit, 56	pandoc.table, $6,60$
pander.survreg, 57	<pre>pandoc.table(pandoc.table.return), 77</pre>
pander.table, 57	pandoc.table.return,77
pander.tabular,58	<pre>pandoc.title(pandoc.title.return), 81</pre>
pander.ts, 58	pandoc.title.return,81
pander.zoo, 59	pandoc.verbatim, 68, 75-77
pander_return, 62	pandoc.verbatim
panderOptions, 19, 59, 79	(pandoc.verbatim.return), 82
Pandoc (Pandoc-class), 62	pandoc.verbatim.return, 82
Pandoc-class, 62	
Pandoc.brew, 11, 64	redraw.recordedplot, 83, 84
Pandoc.convert, 64, 66	redrawPlot,84
pandoc.date(pandoc.date.return), 67	remove.extra.newlines, 85
pandoc.date.return, 67	repChar, 85
pandoc.emphasis, 75-77, 83	
pandoc.emphasis	set.alignment, 79, 86
(pandoc.emphasis.return), 68	set.caption, 72, 79, 86
pandoc.emphasis.return,68	splitLine, 87
pandoc.footnote	+omnfile 11 10
(pandoc.footnote.return), 69	tempfile, 11, 18
pandoc.footnote.return, 69	trim.spaces,87
pandoc.formula,60	wrap, 88
oandoc.formula(pandoc.formula.return),	ap, 00
69	