

Package ‘docator’

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Title Docator (Decorate + Output) Displays

Version 0.7.0

Description A framework for creating production outputs. Users can frame a table, listing, or figure with headers and footers and save to an output file. Stores an intermediate 'docator' object for reproducibility and rendering to multiple output types.

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Encoding UTF-8

Imports gt (>= 1.2.0), rmarkdown, rlang, cli, dplyr, rstudioapi, purrr, stringr, stringi, tidyr, lifecycle, png, knitr, withr, quarto, officer, polish, xml2

Suggests rprojroot, testthat (>= 3.0.0), tfrmt, pdftools, ggplot2

Config/testthat/edition 3

VignetteBuilder knitr

URL <https://GSK-Biostatistics.github.io/docator/>,
<https://github.com/GSK-Biostatistics/docator>

BugReports <https://github.com/GSK-Biostatistics/docator/issues>

Depends R (>= 4.1.0)

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apply_to_gt_group	<i>apply a gt function to a gt_group</i>
-------------------	--

Description

apply a gt function to a gt_group

Usage

```
apply_to_gt_group(x, func, args, call = rlang::caller_env())
```

Arguments

x	gt group object
func	string with function name
args	named list of function arguments with gt_tbl or gt_group as first arg
call	caller env

Examples

```
gt_tbl <- gt::exibble|> gt::gt()
gt_group <- gt::gt_group(gt_tbl, gt_tbl)

func <- gt::tab_options
arg_list_group <- list(page.header.use_tbl_headings = c(TRUE))

apply_to_gt_group(gt_group, func,arg_list_group)
```

as_docrator *Create docrator object*

Description

Create docrator object

Usage

```
as_docrator(
  x,
  display_name,
  display_loc = NULL,
  header = fancyhead(fancyrow(right = doc_pagenum()))),
  footer = NULL,
  save_object = TRUE,
  object_loc = display_loc,
  ...,
  fontsize = 10,
  geometry = geom_set(),
  fig_dim = c(5, 8),
  convert_ggplot = TRUE,
  tbl_scale = TRUE,
  tbl_stub_pct = 0.3
)
```

Arguments

x	object containing the display. See @details for more information.
display_name	required name of file (excluding extension)
display_loc	optional path to save the output file to
header	Document header. Accepts a fancyhead object. If NULL, no header will be displayed.
footer	Document footer Accepts a fancyfoot object. If NULL, no footer will be displayed.
save_object	Boolean indicating if a docrator object should be saved.
object_loc	path for the docrator object - defaults to display_loc argument.
...	These dots are for future extensions and must be empty.
fontsize	Font size (pt). Defaults to 10. Accepted values: 10, 11, 12.
geometry	Document sizing options based on the geometry latex package. Accepts a named list. Default is geom_set().
fig_dim	vector containing figure height and width in inches. Defaults to c(5,8)
convert_ggplot	Boolean for whether or not to convert ggplot objects to PNG files to preserve scaling for all render engines. Defaults to TRUE.

<code>tbl_scale</code>	Boolean for whether or not to automatically scale table columns to fit display area. Defaults to TRUE. Note that this will overwrite scaling set in the table directly unless set to FALSE.
<code>tbl_stub_pct</code>	percent of total width that should be dedicated to stub column(s). If more than 1 stub column then this is the total for both.

Details

While the `x` argument flexibly accepts many different R objects, the following classes/types are recommended:

- `gt`
- `gt_group` (list of `gt` objects)
- `ggplot`
- list of `ggplots`
- path to PNG file created via `png_path()`
- list of paths to PNG files created via `png_path()`

Value

decorator object

Examples

```
## Not run:
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp) |>
  gt::gt(groupname_col = "mfr",
        row_group_as_column = TRUE) |>
  as_decorator(
    header = fancyhead(fancyrow("Header 1"), fancyrow("Header 2")),
    display_name = "mytbl",
    footer = NULL)

## End(Not run)
```

docorate

Decorate and output a table, listing, or figure to a file

Description

[Deprecated]

This function was deprecated and replaced with `as_decorator` and a corresponding render function i.e `render_pdf`

Usage

```

docorate(
  x,
  filename,
  path = NULL,
  header = fancyhead(fancyrow(right = doc_pagenum())),
  footer = fancyfoot(fancyrow(left = doc_path(filename, path), right = doc_datetime())),
  ...,
  fontsize = 10,
  geometry = geom_set(),
  fig_dim = c(5, 8),
  tbl_scale = TRUE,
  tbl_stub_pct = 0.3
)

```

Arguments

<code>x</code>	object containing the display. See @details for more information.
<code>filename</code>	required name of file including extension (note: only PDF supported currently)
<code>path</code>	optional path to save the output pdf to
<code>header</code>	Document header. Accepts a fancyhead object. If NULL, no header will be displayed.
<code>footer</code>	Document footer Accepts a fancyfoot object. If NULL, no footer will be displayed.
<code>...</code>	These dots are for future extensions and must be empty.
<code>fontsize</code>	Font size (pt). Defaults to 10. Accepted values: 10, 11, 12.
<code>geometry</code>	Document sizing options based on the geometry latex package. Accepts a named list. Default is geom_set().
<code>fig_dim</code>	vector containing figure height and width in inches. Defaults to c(5, 8)
<code>tbl_scale</code>	Boolean for whether or not to automatically scale table columns to fit display area. Defaults to TRUE. Note that this will overwrite scaling set in the table directly unless set to FALSE.
<code>tbl_stub_pct</code>	percent of total width that should be dedicated to stub column(s). If more than 1 stub column then this is the total for both.

Details

While the `x` argument flexibly accepts many different R objects, the following classes/types are recommended:

- `gt`
- `gt_group` (list of `gt` objects)
- `ggplot`
- list of `ggplots`
- path to PNG file created via `png_path()`
- list of paths to PNG files created via `png_path()`

Value

This function is called for its side effects

Examples

```
## Not run:
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp) |>
  gt::gt(groupname_col = "mfr",
        row_group_as_column = TRUE) |>
  decorate(
    header = fancyhead(fancyrow("Header 1"), fancyrow("Header 2")),
    filename = "mytbl.pdf")

## End(Not run)
```

doc_datetime

Date and time of program run

Description

Date and time of program run

Usage

```
doc_datetime()
```

Value

character string

Examples

```
doc_datetime()
```

doc_pagenum	<i>Automatic page numbering</i>
-------------	---------------------------------

Description

Automatic page numbering

Usage

```
doc_pagenum()
```

Value

character string containing latex code

Examples

```
doc_pagenum()
```

doc_path	<i>Path of program</i>
----------	------------------------

Description

Path of program

Usage

```
doc_path(filename = NULL, path = NULL)
```

Arguments

filename	Name of output file
path	program path

Value

character string

Examples

```
## Not run:  
doc_path(filename = "my_tbl.pdf", path = NULL)  
  
## End(Not run)
```

fancyfoot	<i>Construct document footer</i>
-----------	----------------------------------

Description

Define document footer through a series of fancyrows. Each row represents a new line in the footer with options for positioning text at left, center, and/or right positions.

Usage

```
fancyfoot(...)
```

Arguments

...	Series of objects of class fancyrow. Each entry represents a new row in the document footer.
-----	--

Value

Character string containing latex code for the fancyfoot entries as part of the fancyhdr latex framework

Examples

```
fancyfoot(
  fancyrow(left = "My first footnote", right = doc_datetime())
)
```

fancyhead	<i>Construct document header</i>
-----------	----------------------------------

Description

Define document header through a series of fancyrows. Each row represents a new line in the header with options for positioning text at left, center, and/or right positions.

Usage

```
fancyhead(...)
```

Arguments

...	Series of objects of class fancyrow. Each entry represents a new row in the document header.
-----	--

Value

Character string containing latex code for the fancyhead entries as part of the fancyhdr latex framework

Examples

```
fancyhead(  
  fancyrow(left = "Protocol: 12345", right = doc_pagenum()),  
  fancyrow(center = "Demographic Summary")  
)
```

fancyrow

Construct document header row

Description

Define a single row in the document header/footer. Each row represents a single line of text, with options for positioning text at left, center, and/or right.

Usage

```
fancyrow(left = NA, center = NA, right = NA)
```

Arguments

left	Character string to be aligned to the left side of the row.
center	Character string to be aligned to the center of the row.
right	Character string to be aligned to the right side of the row.

Value

Object of class fancyrow

Examples

```
fancyrow(left = "Left most text", right = "Right most text")  
  
fancyrow(center = "Just text in the center")  
  
fancyrow(left = "All", center = "Three", right = "Positions filled")
```

geom_set	<i>Set document geometry defaults</i>
----------	---------------------------------------

Description

Set document geometry defaults

Usage

```
geom_set(...)
```

Arguments

... Series of named value pairs for latex geometry options

Details

Type `geom_set()` in console to view package defaults. Use of the function will add to the defaults and/or override included defaults of the same name. For values that are NULL, such as for `headheight` and `footskip`, the values will be calculated automatically based on the number of header and/or footer lines. For all geometry settings, reference the documentation here: <https://texdoc.org/serve/geometry.pdf/0>

Value

Named list

Examples

```
# view defaults
geom_set()

# Update the defaults
geom_set(left="0.5in", right="0.5in")

# add new defaults
geom_set(paper = "legalpaper")
```

png_path	<i>Path of png file</i>
----------	-------------------------

Description

Path of png file

Usage

```
png_path(path = NULL)
```

Arguments

path	path to png
------	-------------

Value

object with png attribute

Examples

```
## Not run:  
png_path <- png_path(path = "path_to_my_png.png")  
  
## End(Not run)
```

render_docx	<i>Render to docx</i>
-------------	-----------------------

Description

[Experimental]

Usage

```
render_docx(x, display_loc = NULL, version_check = TRUE)
```

Arguments

x	decorator object
display_loc	optional path to save the output docx to
version_check	Boolean indicating whether to print a note if gt or ggplot versions dont match between the original decorator object and the one being used for rendering

Value

This function saves a docx to a specified location

Examples

```
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp) |>
  gt::gt(groupname_col = "mfr",
    row_group_as_column = TRUE) |>
  as_dcorator(
    header = fancyrow(fancyrow("Header 1"), fancyrow("Header 2")),
    display_name = "mytbl") |>
  render_docx()
```

render_pdf	<i>Render to pdf</i>
------------	----------------------

Description

Render to pdf

Usage

```
render_pdf(
  x,
  display_loc = NULL,
  transform = NULL,
  header_latex = NULL,
  keep_tex = FALSE,
  escape_latex = TRUE,
  quarto = FALSE,
  version_check = TRUE,
  fancywrap = TRUE
)
```

Arguments

x	dcorator object
display_loc	optional path to save the output pdf to
transform	optional latex transformation function to apply to a gt latex string
header_latex	optional .tex file of header latex
keep_tex	Boolean indicating if to keep resulting .tex file from latex conversion. Defaults to FALSE.
escape_latex	Boolean indicating if headers and footers of a gt table should be escaped with gt::escape_latex
quarto	Boolean indicating whether to use Quarto as the rendering engine. Defaults to FALSE, which uses Rmarkdown to render. [Experimental]

version_check	Boolean indicating whether to print a note if gt or ggplot versions dont match between the original docorator object and the one being used for rendering
fancywrap	Boolean indicating if headers and footers should be split to fit the page. Defaults to TRUE. Note that only fancyrows with one left, right OR center element will be wrapped. [Experimental]

Value

This function saves a pdf to a specified location

Examples

```
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp) |>
  gt::gt(groupname_col = "mfr",
        row_group_as_column = TRUE) |>
  as_dcorator(
    header = fancyrow("Header 1"), fancyrow("Header 2")),
  display_name = "mytbl") |>
  render_pdf()
```

render_rtf

Render to rtf

Description

[Experimental]

Usage

```
render_rtf(
  x,
  display_loc = NULL,
  remove_unicode_ws = TRUE,
  use_page_header = FALSE,
  version_check = TRUE
)
```

Arguments

x	docorator object
display_loc	path to save the output rtf to
remove_unicode_ws	Option to remove unicode white space from text.

- use_page_header

If TRUE then all table headings will be migrated to the page header. See <https://gt.rstudio.com/reference/table-header-use-tbl-headings>
- version_check

Boolean indicating whether to print a note if gt or ggplot versions dont match between the original docorator object and the one being used for rendering

Details

Option remove_unicode_ws serves as a workaround for this [issue](#) in gt

Value

This function saves an rtf to a specified location

Examples

```
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp) |>
  gt::gt(groupname_col = "mfr",
        row_group_as_column = TRUE) |>
  as_docator(
    header = fancyhead(fancyrow("Header 1"), fancyrow("Header 2")),
    display_name = "mytbl") |>
  render_rtf()
```

scale_gt	Scale gt table contents for document
----------	--------------------------------------

Description

Scale gt table contents for document

Usage

```
scale_gt(x, tbl_stub_pct = 0.3)
```

Arguments

- x

table of class gt_tbl
- tbl_stub_pct

percent of total width that should be dedicated to stub column(s). If more than 1 stub column then this is the total for both.

Value

Table with col_widths settings applied

Examples

```
gt::gtcars |>
  dplyr::slice_head(n = 10) |>
  dplyr::select(mfr, model, year, msrp, ctry_origin) |>
  gt::gt(
    groupname_col = "ctry_origin",
    rowname_col = "mfr",
    row_group_as_column = TRUE) |>
  scale_gt(tbl_stub_pct = 0.4)
```

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