

Package: rayab (via r-universe)

December 8, 2024

Title R package for AYAB compatible images

Version 0.0.1

Description Functionality to create images suitable for two-color knitting via the AYAB (all yarns are beautiful) open source software/ hardware project from plots, text and images.

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Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

Config/testthat/edition 3

Imports datasets, dplyr, ggplot2, glue, grDevices, here, logger, magick, stats

VignetteBuilder knitr

Config/pak/sysreqs libmagick++-dev gsfontr libssl-dev

Repository <https://marioangst.r-universe.dev>

RemoteUrl <https://github.com/marioangst/rayab>

RemoteRef HEAD

RemoteSha 88b78903b2748890091995431a41a664f6bd45dd

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ggplot_to_ayab	<i>Convert ggplot plot to image suitable for knitting with AYAB</i>
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Description

Convert ggplot plot to image suitable for knitting with AYAB

Usage

```
ggplot_to_ayab(p, width = NULL, height = NULL, bw_method = NULL)
```

Arguments

p	The ggplot plot
width	The desired output width in pixels
height	The desired output height in pixels
bw_method	One of "threshold" or "quantize" (default). There are two black and white conversion methods, because how well the conversion works depends a bit on the properties of the image given as input (especially colors). The two methods are "quantize" and "threshold".

Value

A magick image object

ggplot_to_magick	<i>Create magick image object from ggplot plot object</i>
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Description

Used internally.

Usage

```
ggplot_to_magick(p)
```

Arguments

p	The ggplot plot to convert
---	----------------------------

Value

A magick image object

ggplot_void	<i>Process ggplot object to remove everything except plot area</i>
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Description

Process ggplot object to remove everything except plot area

Usage

```
ggplot_void(p)
```

Arguments

p	The ggplot plot to process
---	----------------------------

Value

A ggplot plot with only the plot area and everything else stripped

magick_to_ayab	<i>Process magick image object for ayab knitting</i>
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Description

This function processes a magick image object to be suitable for knitting with ayab. It pixelates the image and then converts it to the desired width and height. Remember, one pixel is one stitch.

Usage

```
magick_to_ayab(fig, width = NULL, height = NULL, bw_method = NULL)
```

Arguments

fig	A magick image object
width	The desired output width in pixels
height	The desired output height in pixels
bw_method	One of "threshold" or "quantize" (default). There are two black and white conversion methods, because how well the conversion works depends a bit on the properties of the image given as input (especially colors). The two methods are "quantize" and "threshold".

Value

A magick image object

make_test_plot *Make a simple black and whit grid test ggplot plot*

Description

Make a simple black and whit grid test ggplot plot

Usage

```
make_test_plot()
```

Value

A ggplot plot

make_test_plot_complex
Plot a timeline test ggplot plot

Description

Plot a timeline test ggplot plot

Usage

```
make_test_plot_complex()
```

Value

A ggplot plot

make_test_plot_complex_lines
Plot a timeline test ggplot plot with lines

Description

Plot a timeline test ggplot plot with lines

Usage

```
make_test_plot_complex_lines()
```

Value

A ggplot plot

make_text_img *Create magick image object with text*

Description

Create magick image object with text

Usage

```
make_text_img(input_text)
```

Arguments

input_text Character string to plot

Value

A magick image object with the input text

save_ayab_png *Save magick image object to png*

Description

Save magick image object to png

Usage

```
save_ayab_png(fig, filepath)
```

Arguments

fig The image object
filepath Desired output file path

Value

Saves object to file. Returns the file path.

`text_to_ayab`*Convert text to image suitable for knitting with AYAB*

Description

Convert text to image suitable for knitting with AYAB

Usage

```
text_to_ayab(input_text, width = NULL, height = NULL)
```

Arguments

<code>input_text</code>	The desired text to be knit
<code>width</code>	The desired output width in pixels
<code>height</code>	The desired output height in pixels

Value

A magick image object

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