

Package ‘ggimage’

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Title Use Image in 'ggplot2'

Version 0.3.5

Description Supports image files and graphic objects to be visualized in 'ggplot2' graphic system.

Depends R (>= 4.1.0), ggplot2

Imports digest, ggfun, ggiraph, ggplotify, grid, jsonlite, magick, methods, purrr, rlang, scales, tibble, tools, utils, withr, yulab.utils (>= 0.1.3)

Suggests ape, ggtree, gridGraphics, httr, rsvg

ByteCompile true

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URL <https://github.com/YuLab-SMU/ggimage>

BugReports <https://github.com/YuLab-SMU/ggimage/issues>

Encoding UTF-8

RoxygenNote 7.3.3

NeedsCompilation no

Author Guangchuang Yu [aut, cre, cph] (ORCID: <<https://orcid.org/0000-0002-6485-8781>>),
Shuangbin Xu [ctb] (ORCID: <<https://orcid.org/0000-0003-3513-5362>>),
Yonghe Xia [ctb]

Maintainer Guangchuang Yu <guangchuangyu@gmail.com>

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autocomplete_name	<i>autocomplete_name</i>
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Description

obtain suggestions for full names based on partial text name

Usage

autocomplete_name(name, ...)

Arguments

name	partial text name
...	additional parameters

Value

scientific name

download_phylopic *download_phylopic*

Description

download phylopic images

Usage

```
download_phylopic(id, destdir = ".", ...)
```

Arguments

id	phylopic id
destdir	directory where the downloaded images are to be saved.
...	additional parameters passed to download.file

Details

This function allows users to download phylopic images using phylopic id

Value

a character string (or vector) with downloaded file path

Author(s)

Guangchuang Yu

draw_key *key drawing function*

Description

key drawing function

Usage

```
draw_key_image(data, params, size)
```

Arguments

data	A single row data frame containing the scaled aesthetics to display in this key
params	A list of additional parameters supplied to the geom.
size	Width and height of key in mm

Value

A grid grob

GeomInteractiveImage *ggproto classes for ggiraph*

Description

ggproto classes for ggiraph

geom_bgimage *geom_bgimage*

Description

add image as background to plot panel.

Usage

```
geom_bgimage(image)
```

Arguments

image image file

Value

ggplot

Author(s)

Guangchuang Yu

geom_emoji	<i>geom_emoji</i>
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Description

geom layer for using emoji image

Usage

```
geom_emoji(  
  mapping = NULL,  
  data = NULL,  
  inherit.aes = TRUE,  
  na.rm = FALSE,  
  by = "width",  
  ...  
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from ggplot()
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

geom_flag	<i>geom_flag</i>
-----------	------------------

Description

geom layer for using flag image

Usage

```
geom_flag(  
  mapping = NULL,  
  data = NULL,  
  inherit.aes = TRUE,  
  na.rm = FALSE,  
  by = "width",  
  ...  
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from ggplot()
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

geom_icon	<i>geom_icon</i>
-----------	------------------

Description

geom layer for using icon

Usage

```
geom_icon(  
  mapping = NULL,  
  data = NULL,  
  inherit.aes = TRUE,  
  na.rm = FALSE,  
  by = "width",  
  ...  
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from ggplot()
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

`geom_image`*geom_image*

Description

geom layer for visualizing image files

Usage

```
geom_image(  
  mapping = NULL,  
  data = NULL,  
  stat = "identity",  
  position = "identity",  
  inherit.aes = TRUE,  
  na.rm = FALSE,  
  by = "width",  
  nudge_x = 0,  
  use_cache = TRUE,  
  ...  
)
```

Arguments

<code>mapping</code>	aes mapping
<code>data</code>	data
<code>stat</code>	stat
<code>position</code>	position
<code>inherit.aes</code>	logical, whether inherit aes from <code>ggplot()</code>
<code>na.rm</code>	logical, whether remove NA values
<code>by</code>	one of 'width' or 'height'
<code>nudge_x</code>	horizontal adjustment to nudge image
<code>use_cache</code>	logical, whether to use image caching for better performance (default: TRUE)
<code>...</code>	additional parameters

Value

geom layer

Author(s)

Guangchuang Yu

Examples

```
## Not run:
library("ggplot2")
library("ggimage")
set.seed(2017-02-21)
d <- data.frame(x = rnorm(10),
                y = rnorm(10),
                image = sample(c("https://www.r-project.org/logo/Rlogo.png",
                                "https://jeroenooms.github.io/images/frink.png"),
                              size=10, replace = TRUE)
                )
# With caching enabled (default)
ggplot(d, aes(x, y)) + geom_image(aes(image=image))

# With caching disabled
ggplot(d, aes(x, y)) + geom_image(aes(image=image), use_cache=FALSE)

## End(Not run)
```

geom_image_interactive

Create interactive image of ggimage

Description

The geometry is based on `geom_image()`. See the documentation for those functions for more details.

Usage

```
geom_image_interactive(...)
```

Arguments

... see also the parameters of `geom_image()` of `ggimage`

Examples

```
## Not run:
library("ggplot2")
library("ggimage")
library("ggiraph")
set.seed(2017-02-21)
d <- data.frame(x = rnorm(10),
                y = rnorm(10),
                image = sample(c("https://www.r-project.org/logo/Rlogo.png",
                                "https://jeroenooms.github.io/images/frink.png"),
                              size=10, replace = TRUE)
                )
```

```
d$id <- sample(10)
p <- ggplot(d, aes(x, y)) +
  geom_image_interactive(aes(image=image, tooltip = id, data_id = id))
girafe(ggobj = p)

## End(Not run)
```

 geom_phylopic

geom_phylopic

Description

geom layer for using phylopic image

Usage

```
geom_phylopic(
  mapping = NULL,
  data = NULL,
  inherit.aes = TRUE,
  na.rm = FALSE,
  by = "width",
  image_fun = function(x) magick::image_background(x, color = "none", flatten = FALSE),
  ...
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from ggplot()
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
image_fun	a function to process magick-image objects, default is function(x)magick::image_background(x, color = "none", flatten = FALSE).
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

```
geom_phylopic_interactive
  Create interactive phylopic of ggimage
```

Description

The geometry is based on `geom_phylopic()`. See the documentation for those functions for more details.

Usage

```
geom_phylopic_interactive(...)
```

Arguments

... see also the parameters of `geom_phylopic()` of `ggimage`

```
geom_pokemon      geom_pokemon
```

Description

geom layer for using pokemon image

Usage

```
geom_pokemon(
  mapping = NULL,
  data = NULL,
  inherit.aes = TRUE,
  na.rm = FALSE,
  by = "width",
  ...
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from <code>ggplot()</code>
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

geom_subview

geom_subview

Description

subview geom

Usage

```
geom_subview(
  mapping = NULL,
  data = NULL,
  width = 0.1,
  height = 0.1,
  x = NULL,
  y = NULL,
  subview = NULL
)
```

Arguments

mapping	aes mapping, requires 'x', 'y' and 'subview'
data	data frame
width	width
height	height
x	x position of subview. This parameter works if mapping and data is not provided
y	y position of subview. This parameter works if mapping and data is not provided
subview	subview to plot, if not provided in data and specify by mapping

Value

layer

Author(s)

guangchuang yu

geom_worldcup2018 *geom_worldcup2018*

Description

geom layer for wordcup 2018

Usage

```
geom_worldcup2018(  
  mapping = NULL,  
  data = NULL,  
  inherit.aes = TRUE,  
  na.rm = FALSE,  
  by = "width",  
  ...  
)
```

Arguments

mapping	aes mapping
data	data
inherit.aes	whether inherit aes mapping from ggplot()
na.rm	whether remove NA values
by	one of 'width' or 'height' for specifying size
...	additional parameter

Value

ggplot2 layer

Author(s)

Guangchuang Yu

ggbackground *ggbackground*

Description

set background for ggplot

Usage

```
ggbackground(gg, background, ...)
```

Arguments

gg	gg object
background	background image
...	additional parameter to manipulate background image, see also geom_image

Value

gg object

Author(s)

guangchuang yu

ggpreview *ggpreview*

Description

preview a plot before saving it to a file.

Usage

```
ggpreview(  
  filename = NULL,  
  plot = last_plot(),  
  width = NA,  
  height = NA,  
  units = "in",  
  ...  
)
```

Arguments

filename	If it is not NULL, the previewed figure will be save to the file
plot	any plot that supported by the 'ggplotify' package
width	width of the figure
height	height of the figure
units	units of the 'width' and 'height'
...	additional parameters pass to ggsave() if filename is not NULL

Value

a preview of the figure

Author(s)

Guangchuang Yu

image_read2	<i>image_read2</i>
-------------	--------------------

Description

read image (by magick::image_read) with the ability to remove marginal empty space

Usage

```
image_read2(path, ..., cut_empty_space = TRUE)
```

Arguments

path	file path
...	additional parameters that pass to magick::image_read
cut_empty_space	whether remove marginal empty space

Value

magick-image object

Author(s)

Guangchuang Yu

`list.flag`*list.flag*

Description

list available flag

Usage`list.flag()`**Value**

flag vector

Author(s)

Guangchuang Yu

`list.icon`*list.icon*

Description

list available icon

Usage`list.icon()`**Value**

icon vector

Author(s)

Guangchuang Yu

`list.pokemon` *list.pokemon*

Description

list available pokemon

Usage

`list.pokemon()`

Value

pokemon vector

Author(s)

Guangchuang Yu

`list.worldcup2018` *list.worldcup2018*

Description

list flags of worldcup 2018

Usage

`list.worldcup2018()`

Value

flag vector

Author(s)

Guangchuang Yu

phylopic_uid *phylopic_uid*

Description

query phylopic to get uid from scientific name

Usage

```
phylopic_uid(name, seed = 123)
```

Arguments

name	scientific name
seed	The random seed to use to generate the same uid, because a name might have many uid, the function will extract one of them randomly, default is 123.

Value

phylopic uid

Author(s)

Guangchuang Yu

theme_nothing *theme_nothing*

Description

A theme that only show the plot panel

Usage

```
theme_nothing(base_size = 11, base_family = "")
```

Arguments

base_size	font size
base_family	font family

Value

ggplot2 theme

Author(s)

Guangchuang Yu

`theme_transparent` *theme_transparent*

Description

transparent background theme

Usage

`theme_transparent(...)`

Arguments

... additional parameter to tweak the theme

Value

ggplot object

Author(s)

Guangchuang Yu with contributions from Hugo Gruson

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