# Package ‘ggfun’

November 21, 2022

**Title** Miscellaneous Functions for 'ggplot2'

**Version** 0.0.9

**Description** Useful functions and utilities for 'ggplot' object (e.g., geometric layers, themes, and utilities to edit the object).

**Imports** ggplot2, grid, rlang, utils

**Suggests** ggplotify, knitr, rmarkdown, prettydoc, tidyr, ggnewscale

**VignetteBuilder** knitr

**ByteCompile** true

**License** Artistic-2.0

**Encoding** UTF-8

**RoxygenNote** 7.2.2

**NeedsCompilation** no

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**Repository** CRAN

**Date/Publication** 2022-11-21 07:20:02 UTC

## R topics documented:

## element_roundrect *round rectangle borders and backgrounds*

### Description

round rectangle borders and backgrounds

### Usage

```
element_roundrect(
  fill = NULL,
  colour = NULL,
  size = NULL,
  linetype = NULL,
  color = NULL,
  r = grid::unit(0.1, "snpc"),
  inherit.blank = FALSE
)
```

### Arguments

| | |
|---|---|
| `fill` | Fill colour. |
| `colour, color` | Line/border colour. Color is an alias for colour. |
| `size` | text size in pts. |
| `linetype` | Line type. An integer (0:8), a name (blank, solid, dashed, dotted, dotdash, longdash, twodash), or a string with an even number (up to eight) of hexadecimal digits which give the lengths in consecutive positions in the string. |
| `r` | the radius of the rounded corners, a `unit` object, default is unit(0.1, 'snpc'). |
| `inherit.blank` | Should this element inherit the existence of an `element_blank` among its parents? If `TRUE` the existence of a blank element among its parents will cause this element to be blank as well. If `FALSE` any blank parent element will be ignored when calculating final element state. |

### Examples

```
library(ggplot2)
p <- ggplot(mpg, aes(displ, cty)) + geom_point()
p <- p + facet_grid(cols = vars(cyl))
p <- p + theme(strip.background=element_roundrect(fill="grey40", color=NA, r=0.15))
p
p2 <- ggplot(mtcars, aes(mpg, disp, color=factor(cyl), size=cyl)) +
      geom_point()
p2 + theme(legend.background=element_roundrect(color="#808080", linetype=2))
```

## `facet_set` *facet_set*

### Description

add a facet label to a ggplot or change facet label of a ggplot

### Usage

```
facet_set(label, side = "t", angle = NULL)
```

### Arguments

| | |
|---|---|
| `label` | a character or a named vector to label the plot |
| `side` | to label the plot at which side, either ’t’ (top) or ’r’ (right) |
| `angle` | angle of the facet label. Default is 0 for side=’t’ and -90 for side=’r’. |

### Value

a ggplot with facet label

## `get_aes_var` *get_aes_var*

### Description

extract aes mapping, compatible with ggplot2 < 2.3.0 & > 2.3.0

### Usage

```
get_aes_var(mapping, var)
```

### Arguments

| | |
|---|---|
| `mapping` | aes mapping |
| `var` | variable |

### Value

mapped var

### Author(s)

guangchuang yu

## `ggbreak2ggplot` *ggbreak2ggplot*

### Description

convert a ggbreak object to a ggplot object

### Usage

```
ggbreak2ggplot(plot)
```

### Arguments

| | |
|---|---|
| `plot` | a ggbreak object |

### Value

a ggplot object

### Author(s)

Guangchuang Yu

## `gglegend` *gglegend*

### Description

add manual setting legend

### Usage

```
gglegend(mapping, data, geom, p = NULL)
```

### Arguments

`mapping` aes mapping for the ’geom’. The first mapping should be the one for the legend, while others maybe needed for the ’geom’ (e.g., label for geom_text).

`data` input data frame. If users want to mapping ’VALUE’ to ’colour’, the input data should contains ’VALUE’ and ’colour’ (actual value, e.g., ’red’ and ’blue’) variable.

`geom` a geom to plot the data for generating the legend and the geom will be plotted invisible.

`p` a ggplot object. If NULL, the ’last_plot()’ will be used.

### Details

add additional legend to a ggplot

### Value

a ggplot object

### Author(s)

Guangchuang Yu

### Examples

```
library(ggplot2)
p <- ggplot(mtcars, aes(mpg, disp)) + geom_point()
data <- data.frame(colour = c("red",  "blue"), VALUE = c("A", "B"))
gglegend(aes(colour = VALUE, label=VALUE), data, geom_text, p)
```

## `identify.gg` *identify*

### Description

identify node by interactive click

### Usage

```
## S3 method for class 'gg'
identify(x = last_plot(), col = "auto", ...)
```

### Arguments

`x` tree view

`col` selected columns to extract. Default is "auto" which will select all columns for ’ggplot’ object and ’node’ column for ’ggtree’ object

`...` additional parameters, normally ignored

## Value

closest data point

## Author(s)

Guangchuang Yu

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`is.ggbreak` *is.ggbreak*

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## Description

check whether a plot is a ggbreak object (including 'ggbreak', 'ggwrap' and 'ggcut' that defined in the 'ggbreak' package)

## Usage

```
is.ggbreak(plot)
```

## Arguments

| | |
|---|---|
| `plot` | a plot obejct |

## Value

logical value

## Author(s)

Guangchuang Yu

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`is.ggtree` *is.ggtree*

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## Description

test whether input object is produced by ggtree function

## Usage

```
is.ggtree(x)
```

## Arguments

| | |
|---|---|
| `x` | object |

### Value

TRUE or FALSE

### Author(s)

Guangchuang Yu

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## `keybox` *keybox*

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### Description

draw border for each of the ggplot legends

### Usage

```
keybox(p, grob = "roundrect", gp = NULL)
```

### Arguments

| | |
|---|---|
| `p` | a ggplot object |
| `grob` | one of ’rect’ or ’roundrect’ |
| `gp` | graphic parameter |

### Value

grob object

### Author(s)

Guangchuang Yu

### Examples

```
library(ggplot2)
p <- ggplot(mtcars, aes(mpg, disp, color=factor(cyl), size=cyl)) + geom_point()
keybox(p, 'roundrect', gp = gpar(col = '#808080', lty = "dashed"))
```

## set_font *set_font*

### Description

setting font for ggplot (axis text, label, title, etc.)

### Usage

```
set_font(p, family = "sans", fontface = NULL, size = NULL, color = NULL)
```

### Arguments

| | |
|---|---|
| p | ggplot object |
| family | font fammily |
| fontface | font face |
| size | font size |
| color | font color |

### Value

TableGrob object

### Author(s)

Guangchuang Yu

### Examples

```
library(grid)
library(ggplot2)
d <- data.frame(x=rnorm(10), y=rnorm(10), lab=LETTERS[1:10])
p <- ggplot(d, aes(x, y)) + geom_text(aes(label=lab), size=5)
set_font(p, family="Times", fontface="italic", color='firebrick')
```

## 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

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# `theme_noxaxis` *theme_noxaxis*

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## Description

A theme that only show y-axis

## Usage

```
theme_noxaxis(color = "black", ...)
```

## Arguments

| | |
|---|---|
| `color` | color of y-axis |
| `...` | additional parameters that passed to theme() |

## Value

ggplot2 theme

## Author(s)

Guangchuang Yu

## theme_stamp *set the theme of ggplot object with the striped background style.*

### Description

set the theme of ggplot object with the striped background style.

### Usage

```
theme_stamp(colour = c("grey90", "white"), axis = "y", ...)
```

### Arguments

| | |
|---|---|
| colour | character the color of the striped background, default is c('grey90', 'white'). |
| axis | character which grid of axis will be filled, default is 'y'. |
| ... | additional parameter, see also 'theme' of 'ggplot2'. |

### Examples

```
library(ggplot2)
iris |> tidyr::pivot_longer(
    cols = !Species,
    names_to = 'var',
    values_to = 'value'
  ) |>
ggplot(
  aes(x=var, y=Species, color=value, size=value)
) +
geom_point() -> p
p +
theme_stamp(
  colour = c('grey90', 'white'),
  axis = 'y',
  axis.line.y=element_line()
)
p +
theme_stamp(
  colour = c('grey90', 'white'),
  axis = 'x',
  axis.line.x = element_line()
)
```

## 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

## yrange *plot range of a ggplot object*

### Description

extract x or y ranges of a ggplot

### Usage

```
yrange(gg, type = "limit", region = "panel")

xrange(gg, type = "limit", region = "panel")

ggrange(gg, var, type = "limit", region = "panel")
```

### Arguments

| | |
|---|---|
| `gg` | a ggplot object |
| `type` | one of 'limit' or 'range', if 'region == "plot"', to extract plot limit or plot data range |
| `region` | one of 'panel' or 'plot' to indicate extracting range based on the plot panel (scale expand will be counted) or plot data (scale expand will not be counted) |
| `var` | either 'x' or 'y' |

### Value

range of selected axis

### Author(s)

Guangchuang Yu

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