Package 'aplotExtra'

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Title Creating Composite Plots using 'aplot'

Version 0.0.4

Description Many complex plots are actually composite plots, such as 'oncoplot', 'funkyheatmap', 'upsetplot', etc. We can produce subplots using 'ggplot2' and combine them to create composite plots using 'aplot'. In this way, it is easy to customize these complex plots, by adding, deleting or modifying subplots in the final plot. This package provides a set of utilities to help users to create subplots and complex plots.

Depends R (>= 4.1.0)

Imports aplot (>= 0.2.3), dplyr, forcats, ggfun (>= 0.1.1), ggplot2, grid, maftools, purrr, rlang, stats, tibble, tidyr, utils, ggstar, yulab.utils (>= 0.0.8)

Suggests ggtree, data.table, RColorBrewer, R.utils

URL https://github.com/YuLab-SMU/aplotExtra

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Encoding UTF-8

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NeedsCompilation no

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Contents

`funky_bar` *funky_bar*

Description

create bar plot for funkyheatmap

Usage

```
funky_bar(data, cols)
```

Arguments

`data`	data frame
`cols`	selected columns

Value

ggplot object

Author(s)

Guangchuang Yu

`funky_heatmap` *funky_heatmap*

Description

create a funkyheatmap

Usage

```
funky_heatmap(..., data = NULL, widths = NULL, options = NULL)
```

Arguments

...	funky plots (e.g., outputs of funky_point, funky_bar, etc.)
data	If data is provided, create a funkyheatmap from it. Otherwise, create composite plot from ...
widths	relative widths of the plots
options	any ggplot component that can be added to the plots

Value

gglist object

Author(s)

Guangchuang Yu

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funky_point *funky_point*

Description

create dot plot for funkyheatmap

Usage

```
funky_point(data, cols, cols2 = NULL, ...)
```

Arguments

data	data frame
cols	selected columns
cols2	selected columns to keep names
...	additional parameters, passing to geom_star

Value

ggplot object

Author(s)

Guangchuang Yu

funky_text *funky_text*

Description

create text plot (i.e., rownames) for funkyheatmap

Usage

```
funky_text(data, cols = 1, hjust = 0)
```

Arguments

data	data frame
cols	selected column
hjust	text alignment adjustment

Value

ggplot object

Author(s)

Guangchuang Yu

get_all_subsets *Get the items/names/ids of subsets from a named list*

Description

Get the items/names/ids of subsets from a named list

Usage

```
get_all_subsets(list, name_separator = "/")
```

Arguments

list	a named list
name_separator	default is /

Value

a tibble

Examples

```
list = list(A = sample(LETTERS, 20),
            B = sample(LETTERS, 22),
            C = sample(LETTERS, 24),
            D = sample(LETTERS, 30, replace = TRUE))
get_all_subsets(list)
```

`oncoplot` *ploting oncoplot with aplot*

Description

ploting oncoplot with aplot

Usage

```
oncoplot(maf, genes = 20)
```

Arguments

`maf`	MAF object.
`genes`	the gene names or the number, default is 20.

Value

`oncoplot` object, which is also a `aplot` object

Examples

```
laml.maf <- system.file("extdata", "tcga_laml.maf.gz", package = "maftools")
laml.clin <- system.file('extdata', 'tcga_laml_annot.tsv', package = 'maftools')
laml <- maftools::read.maf(maf = laml.maf, clinicalData = laml.clin)
oncoplot(maf = laml, genes = 20)
```

`upset_plot` *upsetplot2*

Description

Plot a upset plot

Usage

```
upset_plot(
  list,
  nintersects = NULL,
  order.intersect.by = c("size", "name"),
  order.set.by = c("size", "name"),
  color.intersect.by = "none",
  color.set.by = "none",
  remove_empty_intersects = TRUE
)
```

Arguments

list	a list of sets
nintersects	number of intersects. If NULL, all intersections will show.
order.intersect.by	one of 'size' or 'name'
order.set.by	one of 'size' or 'name'
color.intersect.by	color scheme for 'intersect' bars (e.g., "Set2"), default is "none"
color.set.by	color scheme for 'set' bars (e.g., "Set3"), default is "none"
remove_empty_intersects	remove the intersects which have zero elements. Default is TRUE.

Details

This function generate a upset plot by creating a composite plot which contains subplots generated by ggplot2.

Value

an upset plot

Examples

```
list = list(A = sample(LETTERS, 20),
            B = sample(LETTERS, 22),
            C = sample(LETTERS, 14),
            D = sample(LETTERS, 30, replace = TRUE))
upset_plot(list)
upset_plot(list, remove_empty_intersects = TRUE)
upset_plot(list, order.intersect.by = "name")
upset_plot(list, order.set.by = "name")
upset_plot(list, nintersects = 6)
```

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