Package 'ggiraphExtra'

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Type Package

Title Make Interactive 'ggplot2'. Extension to 'ggplot2' and 'ggiraph'

Version 0.2.9

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URL https://github.com/cardiomoon/ggiraphExtra

Depends R (>= 2.10)

Imports ggplot2 (>= 2.2.0), ggiraph (>= 0.3.2), scales, reshape2, plyr, mycor, ppcor, grid, mgcv, sjlabelled, sjmisc, stringr, webshot, tidyr, purrr, dplyr, magrittr, ggforce, ztable, RColorBrewer

Suggests TH.data, moonBook, maps, gcookbook, knitr, rmarkdown, testthat

Description
Collection of functions to enhance 'ggplot2' and 'ggiraph'. Provides functions for exploratory plots. All plot can be a 'static' plot or an 'interactive' plot using 'ggiraph'.

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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R topics documented:

addLabelDf *Add value labels to the data.frame*

Description

Add value labels to the data.frame

Usage

```
addLabelDf(data, mapping = NULL)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.

browsers *Browser market share 2011*

Description

A phony dataset measuring browser market share

Usage

```
browsers
```

Format

A data.frame with 12 rows and 3 columns

browser browser

version browser version

share market share, in percentage

`coord_radar` *The radar coordinate system is a modification of polar coordinate system, commonly used for radar chart*

Description

The radar coordinate system is a modification of polar coordinate system, commonly used for radar chart

Usage

```
coord_radar(theta = "x", start = 0, direction = 1)
```

Arguments

`theta`	variable to map angle to (x or y)
`start`	offset of starting point from 12 o'clock in radians
`direction`	1, clockwise; -1, counterclockwise

`getMapping` *extract variable name from mapping, aes*

Description

extract variable name from mapping, aes

Usage

```
getMapping(mapping, varname)
```

Arguments

`mapping`	aesthetic mapping
`varname`	variable name to extract

Value

variable name in character

Examples

```
require(ggplot2)
mapping=aes(colour=sex)
mapping=aes(x=c(Sepal.Length,Sepal.Width,Petal.Length,Petal.Width))
getMapping(mapping,"colour")
getMapping(mapping,"x")
```

ggAncova *Make an interactive plot for an ANCOVA model*

Description

Make an interactive plot for an ANCOVA model

Usage

```
ggAncova(x, ...)

## Default S3 method:
ggAncova(x, mapping, use.label = TRUE, use.labels = TRUE,
  ...)

## S3 method for class 'formula'
ggAncova(x, data, ...)

## S3 method for class 'lm'
ggAncova(x, label = NULL, digits = 1, interactive = FALSE,
  ...)
```

Arguments

x	an object
...	additional arguments passed to the generic function
mapping	Set of aesthetic mappings created by aes or aes_.
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
data	a data.frame
label	A character string of column name be assigned to the label
digits	An integer indicating the number of decimal places
interactive	A logical value. If TRUE, an interactive plot will be returned

Methods (by class)

- default: Make an interactive plot for an ANCOVA model
- formula: Make an interactive plot for an ANCOVA model
- lm: Make an interactive plot for an ANCOVA model

Examples

```
require(moonBook)
require(ggplot2)
require(ggiraph)
ggAncova(radial,aes(age,NTAV,color=sex),interactive=TRUE)
fit=lm(NTAV~age+HBP,data=radial)
ggAncova(fit,interactive=TRUE)
ggAncova(NTAV~age+DM,data=radial)
```

---

ggArea *Draw an interactive area plot*

Description

Draw an interactive area plot

Usage

```
ggArea(data, mapping, position = "stack", palette = "Blues",
  reverse = TRUE, alpha = 0.4, size = 0.3, use.label = TRUE,
  use.labels = TRUE)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
position	Either "stack" or "fill"
palette	A character string indicating the color palette
reverse	If true, reverse palette colors
alpha	Transparency
size	Line size
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data

Value

An area plot

Examples

```
require(gcookbook)
require(ggplot2)
ggArea(uspopage,aes(x=Year,y=Thousands,fill=AgeGroup))
ggArea(uspopage,aes(x=Year,y=Thousands,fill=AgeGroup),position="fill")
```

ggBar *Draw an interactive barplot*

Description

Draw an interactive barplot

Usage

```
ggBar(data, mapping, stat = "count", position = "stack", palette = NULL,
  horizontal = FALSE, yangle = 0, xangle = 0, maxylev = 6,
  addlabel = FALSE, labelsize = 5, polar = FALSE, reverse = FALSE,
  use.label = TRUE, use.labels = TRUE, interactive = FALSE, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
stat	The statistical transformation to use on the data for this layer, as a string c("count","identity")
position	Position adjustment. One of the c("fill","stack","dodge")
palette	A character string indicating the color palette
horizontal	A logical value. If TRUE,a horizontal bar plot will be returned
yangle	An integer. The value will be used adjust the angle of axis.text.y
xangle	An integer. The value will be used adjust the angle of axis.text.x
maxylev	integer indicating threshold of unique value to be treated as a categorical variable
addlabel	A logical value. If TRUE, label will be added to the plot
labelsize	label size
polar	A logical value. If TRUE, coord_polar() function will be added
reverse	If true, reverse palette colors
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
interactive	A logical value. If TRUE, an interactive plot will be returned
...	other arguments passed on to geom_bar_interactive.

Value

An interactive barplot

Examples

```
require(moonBook)
require(ggplot2)
require(ggiraph)
require(plyr)
ggBar(acs,aes(x=Dx,fill=smoking),interactive=TRUE,width=1,colour="white",size=0.2,polar=TRUE)
ggBar(acs,aes(x=Dx,fill=smoking),position="fill",addlabel=TRUE,horizontal=TRUE,width=0.5)
ggBar(acs,aes(x=Dx,fill=smoking),position="dodge",interactive=TRUE,addlabel=TRUE)
ggBar(acs,aes(x=Dx,fill=smoking),position="fill",addlabel=TRUE)
ggBar(rose,aes(x=Month,fill=group,y=value),stat="identity",polar=TRUE,palette="Reds",width=1,
      color="black",size=0.1,reverse=TRUE,interactive=TRUE)
```

---

ggBoxplot *Draw boxplots of a data.frame*

Description

Draw boxplots of a data.frame

Usage

```
ggBoxplot(data, mapping = NULL, rescale = FALSE, horizontal = FALSE,
  interactive = FALSE, addMean = TRUE, position = 0.9, use.label = TRUE,
  use.labels = TRUE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
rescale	if true, rescale the data.frame
horizontal	if true, horizontal boxplots will be made
interactive	A logical value. If TRUE, an interactive plot will be returned
addMean	Whether add mean point on the plot
position	An integer. Uses as argument of position_dodge()
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
...	other arguments passed on to geom_boxplot_interactive

Examples

```
require(ggplot2)
require(ggiraph)
require(reshape2)
ggBoxplot(mtcars,rescale=TRUE)
ggBoxplot(mtcars,aes(x=c(mpg,cyl,disp,hp,drat),color=am),rescale=TRUE)
ggBoxplot(mtcars,aes(x=c(mpg,cyl,disp,hp,drat)),rescale=TRUE)
ggBoxplot(mtcars,rescale=TRUE,interactive=TRUE)
ggBoxplot(mtcars,horizontal=TRUE,interactive=TRUE)
```

ggCatepillar *Make an interactive catepillar plot*

Description

Make an interactive catepillar plot

Usage

```
ggCatepillar(data, mapping, errorbar = "se", interactive = FALSE,
  digits = 1, flip = FALSE, use.label = TRUE, use.labels = TRUE)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
errorbar	which value is displayed with errorbar :"se" or "sd"
interactive	A logical value. If TRUE, an interactive plot will be returned
digits	An integer indicating the number of decimal places
flip	Logical. If TRUE, coord_flip() function is used to make a horizontal plot
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data

Value

An interactive catepillar plot

Examples

```
require(moonBook)
require(ggiraph)
require(ggplot2)
ggCatepillar(acs,aes(Dx,age,color=HBP))
ggCatepillar(acs,aes(c(Dx,sex),age,color=HBP),interactive=TRUE,flip=TRUE,use.labels=FALSE)
ggCatepillar(acs,aes(age,height,color=sex),errorbar=FALSE,interactive=TRUE)
```

ggChoropleth *Draw an interactive choropleth map*

Description

Draw an interactive choropleth map

Usage

```
ggChoropleth(data, mapping, map, palette = "OrRd", reverse = FALSE,
  color = "grey50", title = "", digits = 1, interactive = FALSE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_. Passed on geom_map_interactive. Required mappings are map_id and fill. Possible mapping is facet.
map	a map maybe a result of map_data()
palette	A palette name used for discrete fill var, Default value is "OrRd"
reverse	If true, reverse palette colors
color	A name of color of polygon, Default value is "grey50"
title	A title
digits	An integer indicating the number of decimal places
interactive	Logical. If positive an interactive map will be made
...	other arguments passed on to geom_map_interactive

Examples

```
#crimes <- data.frame(state = tolower(rownames(USArrests)), USArrests)
#require(ggplot2)
#require(ggiraph)
#require(maps)
#require(mapproj)
#require(reshape2)
#require(RColorBrewer)
#states_map <- map_data("state")
#ggChoropleth(crimes,aes(fill=Murder,map_id=state),map=states_map,interactive=TRUE)
#ggChoropleth(crimes,aes(fill=c(Murder,Rape),map_id=state),map=states_map,interactive=TRUE)
#ggChoropleth(crimes,aes(map_id=state),map=states_map,palette="OrRd",interactive=TRUE)
```

ggCLE *Draw a cleveland dot plot*

Description

Draw a cleveland dot plot

Usage

```
ggCLE(data, mapping, reorderByX = TRUE, no = NULL, start = 0.99,
  interactive = FALSE, decreasing = TRUE, use.label = TRUE,
  use.labels = TRUE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
reorderByX	If true, the data is reordered by x variable
no	Number of data be drawn in plot
start	start point of x axis as ratio to minimum x variable
interactive	A logical value. If TRUE, an interactive plot will be returned
decreasing	Should the sort order be increasing or decreasing?
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
...	other arguments passed on to geom_point_interactive

Examples

```
require(ggplot2)
require(ggiraph)
ggCLE(data=mtcars,aes(x=mpg),decreasing=FALSE,interactive=TRUE)
ggCLE(data=mtcars,aes(x=mpg,color=am,facet=am),interactive=TRUE)
if(requireNamespace("gcookbook",quietly=TRUE)){
   require(gcookbook)
   ggCLE(data=tophitters2001,aes(x=avg,y=name,color=lg,facet=lg),no=30,interactive=TRUE)
}
```

ggCor *Draw a heatmap of correlation test*

Description

Draw a heatmap of correlation test

Usage

```
ggCor(data, what = 1, label = 0, colors = NULL, title = TRUE,
  mode = 2, digits = 2, interactive = FALSE, yreverse = TRUE,
  xangle = 45, yangle = 0, use.label = FALSE, ...)
```

Arguments

data	A data.frame
what	if 1, correlation, if 2, partial correlation, if 3, semi-partial correlation
label	if 0, no label(default), if 1, use r value as label, if 2, use r value with significant mark as label
colors	colors for low, mid and high correlation values
title	if true, add title to the heatmap
mode	1 or 2
digits	The number of decimal place
interactive	A logical value. If TRUE, an interactive plot will be returned
yreverse	If true, reverse y axis
xangle	x-axis text angle
yangle	y-axis text angle
use.label	Logical whether or not use label in case of labelled data
...	further arguments to be passed to cor.test

Examples

```
require(mycor)
require(ggplot2)
require(ggiraph)
require(ppcor)
ggCor(iris,digits=3,label=3)
ggCor(iris,what=3,digits=3,label=3)
ggCor(iris,label=3,interactive=TRUE)
ggCor(mtcars,interactive=TRUE)
ggCor(mtcars,mode=2,interactive=TRUE)
ggCor(iris,method="pearson",interactive=TRUE)
```

ggDensity *Make a density plot with histogram*

Description

Make a density plot with histogram

Usage

```
ggDensity(data, mapping, linecolor = "red", addhist = TRUE,
  use.label = TRUE, use.labels = TRUE)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
linecolor	Color of density curve
addhist	Whether add histogram or not
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data

Examples

```
require(ggplot2)
require(moonBook)
ggDensity(acs,aes(x=age))
ggDensity(acs,aes(x=age,color=sex,fill=sex),addhist=FALSE)
ggDensity(acs,aes(x=age,color=sex,fill=sex))
ggDensity(acs,aes(x=age,fill=sex),addhist=FALSE)
ggDensity(acs,aes(x=age,color=sex))
```

ggDonut *Draw a Donut plot*

Description

Draw a Donut plot

Usage

```
ggDonut(data, mapping, addDonutLabel = TRUE, showRatio = TRUE,
  polar = TRUE, labelposition = 1, labelsize = 3, title = "",
  use.label = TRUE, use.labels = TRUE, alpha = 0.7, interactive = FALSE,
  palette = NULL, reverse = FALSE, xmin = 3, xmax = 4, start = 3 *
  pi/2, direction = 1, colour = "white", explode = NULL,
  explodePos = 0.5, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
addDonutLabel	A logical value. If TRUE, labels are added to the Donuts
showRatio	A logical value. If TRUE, Ratios are added to the DonutLabels
polar	A logical value. If TRUE, coord_polar() function will be added
labelposition	A number indicating the label position
labelsize	label size. default value is 3
title	Plot title
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
alpha	transparency of geom_rect
interactive	A logical value. If TRUE, an interactive plot will be returned
palette	A character string indicating the color palette
reverse	If true, reverse palette colors
xmin	minimum x position
xmax	maximum x position
start	offset of starting point from 12 o'clock in radians
direction	1, clockwise; -1, counterclockwise
colour	colour of geom_rect
explode	number of donuts to explode
explodePos	explode position
...	further arguments to be passed to geom_rect_interactive

Value

An interactive Pie and Donut plot

Examples

```
require(ggplot2)
require(ggiraph)
require(plyr)
ggDonut(browsers,aes(donuts=version,count=share))
ggDonut(browsers,aes(donuts=version,count=share),palette="Reds",explode=c(2,4,6),labelposition=0)
```

ggDot *Draw a Wilkinson dot plot*

Description

Draw a Wilkinson dot plot

Usage

```
ggDot(data, mapping, stackdir = "center", binaxis = "y", binwidth = 0.5,
  method = "dotdensity", position = 0.2, boxwidth = 0.25,
  boxfill = NULL, use.label = TRUE, use.labels = TRUE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
stackdir	which direction to stack the dots. "up" (default), "down", "center", "centerwhole" (centered, but with dots aligned)
binaxis	The axis to bin along, "x" (default) or "y"
binwidth	When method is "dotdensity", this specifies maximum bin width. When method is "histodot", this specifies bin width. Defaults to 1/30 of the range of the data
method	"dotdensity" (default) for dot-density binning, or "histodot" for fixed bin widths (like stat_bin)
position	Position adjustment. If 0, no adjustment.
boxwidth	The width of boxplot
boxfill	Fill color of boxplot
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
...	other arguments passed on to geom_dotplot

Examples

```
require(ggplot2)
if(requireNamespace("gcookbook",quietly=TRUE)){ # for data heightweight
 require(gcookbook)
 ggDot(heightweight,aes(sex,heightIn,fill=sex),boxfill="white",binwidth=0.4)
 ggDot(heightweight,aes(heightIn))
 ggDot(heightweight,aes(x=heightIn,fill=sex))
}
require(moonBook) #for use data radial
ggDot(radial,aes(x=sex,y=height,fill=sex),boxfill="white",position=0,binwidth=1,boxwidth=1)
ggDot(radial,aes(x=height,fill=sex),binwidth=1)
ggDot(acs,aes(x=sex,y=age,color=sex))
ggDot(acs,aes(x=Dx,y=age,color=Dx))
```

ggEffect *Visualize the effect of interaction between two continuous independent variables on a response variable*

Description

Visualize the effect of interaction between two continuous independent variables on a response variable

Usage

```
ggEffect(x, ...)

## Default S3 method:
ggEffect(x, mapping, use.label = TRUE, use.labels = TRUE,
  ...)

## S3 method for class 'formula'
ggEffect(x, data, ...)

## S3 method for class 'lm'
ggEffect(x, no = 1, probs = c(0.1, 0.5, 0.9), point = TRUE,
  xvalue = NULL, digits = 2, use.rownames = FALSE, interactive = FALSE,
  ...)
```

Arguments

x	Object to ggEffect
...	additional arguments passed to the generic function
mapping	Set of aesthetic mappings created by aes or aes_.
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
data	A data.frame
no	an integer
probs	A vector of probability weights for obtaining the elements of the vector being sampled.Default value is c(0.10,0.5,0.90)
point	A logical value. If TRUE, draw points
xvalue	A numeric vector
digits	An integer indicating the number of decimal places
use.rownames	If TRUE, use rownames in label
interactive	A logical value. If TRUE, an interactive plot will be returned

Value

An interactive plot showing interaction

Methods (by class)

- `default`: Visualize the effect of interaction between two continuous independent variables on a response variable
- `formula`: Visualize the effect of interaction between two continuous independent variables on a response variable
- `lm`: Visualize the effect of interaction between two continuous independent variables on a response variable

Examples

```
require(ggplot2)
require(ggiraph)
ggEffect(mtcars,aes(x=wt,y=mpg,color=hp))
require(moonBook)
ggEffect(acs,aes(x=height,y=weight,color=smoking))
require(ggplot2)
require(ggiraph)
require(moonBook)
ggEffect(NTAV~age*smoking,data=radial)
require(moonBook)
require(ggplot2)
require(ggiraph)
fit=lm(age~sex*smoking,data=acs)
ggEffect(fit,interactive=TRUE)
ggEffect(radial,aes(x=age,y=NTAV,group=smoking))
```

---

ggErrorBar *Make an interactive bar plot with error bar*

Description

Make an interactive bar plot with error bar

Usage

```
ggErrorBar(data, mapping, interactive = FALSE, digits = 1, mode = 2,
  errorbar = "se", use.label = TRUE, use.labels = TRUE)
```

Arguments

`data`	A data.frame
`mapping`	Set of aesthetic mappings created by aes or aes_.
`interactive`	A logical value. If TRUE, an interactive plot will be returned

digits	An integer indicating the number of decimal places
mode	if 2, two-sided error bar will be displayed, if 1 one-sided errorbar will be displayed
errorbar	which value is displayed with errorbar :"se" or "sd"
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data

Value

An interactive catepillar plot

Examples

```
require(ggplot2)
require(ggiraph)
ggErrorBar(mpg,aes(x=drv,y=cty))
ggErrorBar(mpg,aes(x=drv,y=hwy,color=cyl),mode=1,interactive=TRUE,errorbar="sd")
```

---

ggHeatmap *Make an interactive Heatmap*

Description

Make an interactive Heatmap

Usage

```
ggHeatmap(data, mapping, stat = "count", palette = "Blues",
  reverse = FALSE, addlabel = FALSE, polar = FALSE, interactive = FALSE,
  yangle = 0, color = "grey50", size = 0.1, use.label = TRUE,
  use.labels = TRUE, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
stat	The statistical transformation to use on the data for this layer, as a string c("count","identity")
palette	A palette name used for discrete fill var, Default value is "Blues"
reverse	If true, reverse palette colors
addlabel	A logical value. If TRUE, label will be added to the plot
polar	A logical value. If TRUE, coord_polar() function will be added
interactive	A logical value. If TRUE, an interactive plot will be returned
yangle	A integer. The value will be used adjust the angle of axis.text.y
color	Color argument passed on to geom_rect_interactive.

size	Size argument passed on to geom_rect_interactive.
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
...	other arguments passed on to geom_rect_interactive.

Value

An interactive barplot

Examples

```
require(moonBook)
require(ggplot2)
require(ggiraph)
require(sjmisc)
ggHeatmap(acs,aes(x=Dx,y=smoking),addlabel=TRUE,interactive=TRUE)
ggHeatmap(acs,aes(x=sex,y=Dx,fill=age),addlabel=TRUE,interactive=TRUE)
ggHeatmap(rose,aes(x=Month,y=group,fill=value),stat="identity",addlabel=TRUE)
ggHeatmap(rose,aes(x=Month,y=group,fill=value),addlabel=TRUE)
ggHeatmap(taco,aes(x=AgeGroup,y=Filling,fill=Rating,facet=ShellType),color="grey50",stat="identity")
```

---

ggHSD *Draw Tukey Honest Significant Differences plot*

Description

Draw Tukey Honest Significant Differences plot

Usage

```
ggHSD(tukey, no = 1, digits = 2, interactive = FALSE)
```

Arguments

tukey	A object of class "TukeyHSD", the result of TukeyHSD()
no	An integer specify the order of list
digits	integer indicating the number of decimal places
interactive	A logical value. If TRUE, an interactive plot will be returned

Value

A (interactive) ggplot

Examples

```
require(ggplot2)
fm1 <- aov(breaks ~ wool + tension, data = warpbreaks)
result=TukeyHSD(fm1, "tension", ordered = TRUE)
str(result)
ggHSD(result)
```

---

ggPair *Make an interactive scatter and line plot*

Description

Make an interactive scatter and line plot

Usage

```
ggPair(data, mapping = NULL, rescale = FALSE, idcolor = TRUE,
  horizontal = FALSE, use.label = FALSE, use.labels = TRUE,
  includeFactor = TRUE, includeAll = FALSE, interactive = FALSE)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
rescale	if true, rescale the data.frame
idcolor	Logical. If TRUE, row numbers uses as a color variable
horizontal	Logical. If TRUE, coord_flip() function is used to make a horizontal plot
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
includeFactor	Logical. Whether or not include factor variables
includeAll	Logical. Whether or not include all variables
interactive	Logical. If TRUE, an interactive plot using ggiraph() function will be returned

Examples

```
require(ggplot2)
require(ggiraph)
require(sjmisc)
require(moonBook)
ggPair(iris,rescale=TRUE,horizontal=TRUE)
ggPair(acs,aes(colour=smoking),horizontal=TRUE,rescale=TRUE)
ggPair(radial,aes(color=male),horizontal=TRUE,rescale=TRUE)
ggPair(mtcars,horizontal=TRUE,rescale=TRUE)
ggPair(iris,rescale=TRUE,horizontal=TRUE,interactive=TRUE)
ggPair(iris,aes(color=Species),rescale=TRUE,interactive=TRUE)
ggPair(iris,aes(x=c(Sepal.Length,Sepal.Width),color=Species),horizontal=TRUE,interactive=TRUE)
```

ggPie *Draw a pie plot*

Description

Draw a pie plot

Usage

```
ggPie(data, mapping, addPieLabel = TRUE, showRatioPie = TRUE,
  showRatioPieAbove10 = TRUE, title = "", labelposition = 1,
  polar = TRUE, use.label = TRUE, use.labels = TRUE,
  interactive = FALSE)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
addPieLabel	A logical value. If TRUE, labels are added to the Pies
showRatioPie	A logical value. If TRUE, Ratios are added to the PieLabels
showRatioPieAbove10	A logical value. If TRUE, labels are added to the Pies with ratio above 10.
title	Plot title
labelposition	A number indicating the label position
polar	A logical value. If TRUE, coord_polar() function will be added
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
interactive	A logical value. If TRUE, an interactive plot will be returned

Value

An interactive pie plot

Examples

```
require(ggplot2)
require(ggiraph)
require(plyr)
require(moonBook)
ggPie(data=browsers,aes(pies=browser,count=share))
ggPie(data=acs,aes(pies=Dx))
```

ggPieDonut *Draw a Pie and Donut plot*

Description

Draw a Pie and Donut plot

Usage

```
ggPieDonut(data, mapping, addPieLabel = TRUE, addDonutLabel = TRUE,
  showRatioDonut = TRUE, showRatioPie = TRUE, showRatioPieAbove10 = TRUE,
  title = "", labelposition = 1, polar = TRUE, use.label = TRUE,
  use.labels = TRUE, interactive = FALSE)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
addPieLabel	A logical value. If TRUE, labels are added to the Pies
addDonutLabel	A logical value. If TRUE, labels are added to the Donuts
showRatioDonut	A logical value. If TRUE, Ratios are added to the DonutLabels
showRatioPie	A logical value. If TRUE, Ratios are added to the PieLabels
showRatioPieAbove10	A logical value. If TRUE, labels are added to the Pies with ratio above 10.
title	Plot title
labelposition	A number indicating the label position
polar	A logical value. If TRUE, coord_polar() function will be added
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
interactive	A logical value. If TRUE, an interactive plot will be returned

Value

An interactive Pie and Donut plot

Examples

```
require(ggplot2)
require(ggiraph)
require(plyr)
require(moonBook)
ggPieDonut(acs,aes(pies=Dx,donuts=smoking))
ggPieDonut(acs,aes(pies=smoking))
ggPieDonut(browsers,aes(pies=browser,donuts=version,count=share))
ggPieDonut(browsers,aes(x=c(browser,version),y=share),interactive=TRUE)
```

ggPoints *Make an interactive scatterplot with regression line(s)*

Description

Make an interactive scatterplot with regression line(s)

Usage

```
ggPoints(data, mapping, smooth = TRUE, se = TRUE, method = "auto",
  formula = y ~ x, fullrange = FALSE, level = 0.95, use.count = FALSE,
  maxfactorno = 6, digits = 2, title = NULL, subtitle = NULL,
  caption = NULL, use.label = TRUE, use.labels = TRUE, tooltip = NULL,
  interactive = FALSE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
smooth	Logical. Add regression lines to the scatter plot
se	Logical. display confidence interval around linear regression? (TRUE by default)
method	smoothing method (function) to use, eg. "lm", "glm", "gam", "loess", "rlm"
formula	formula to use in smoothing function, eg. y ~ x, y ~ poly(x, 2), y ~ log(x)
fullrange	should the fit span the full range of the plot, or just the data
level	level of confidence interval to use (0.95 by default)
use.count	Logical. If true use geom_count instead of geom_point_interactive
maxfactorno	An integer. Maximum unique number of a numeric vector treated as a factor
digits	integer indicating the number of decimal places
title	The text for plot title
subtitle	The text for plot subtitle
caption	The text for plot caption
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
tooltip	A character string of column name be included in tooltip. Default value is NULL
interactive	A logical value. If TRUE, an interactive plot will be returned
...	other arguments passed on to geom_point

Examples

```
require(ggplot2)
require(ggiraph)
require(plyr)
ggPoints(aes(x=wt,y=mpg,fill=am),data=mtcars)
ggPoints(aes(x=wt,y=mpg),data=mtcars)
ggPoints(aes(x=wt,y=mpg,fill=am),data=mtcars,method="lm",interactive=TRUE)
ggPoints(aes(x=wt,y=mpg,color=am),data=mtcars,interactive=TRUE)
```

---

ggPredict *Visualize predictions from the multiple regression models.*

Description

Visualize predictions from the multiple regression models.

Usage

```
ggPredict(fit, colorn = 4, point = NULL, jitter = NULL, se = FALSE,
  show.summary = FALSE, colorAsFactor = FALSE, digits = 2,
  interactive = FALSE, ...)
```

Arguments

fit	a model object for which prediction is desired.
colorn	Integer. Number of subgroups of color variables.
point	Logical. Whether or not draw each point
jitter	Logical. Whether or not jitter points
se	Logical. Whether or not draw se
show.summary	Logical. Whether or not show summary
colorAsFactor	Logical. Whether or not treat color variable as categorical variable
digits	An integer indicating the number of decimal places
interactive	A logical value. If TRUE, an interactive plot will be returned
...	additional arguments affecting the predictions produced.

Examples

```
require(moonBook)
require(ggplot2)
require(ggiraph)
require(plyr)
fit=lm(NTAV~age*weight,data=radial)
fit=lm(NTAV~age*weight*DM,data=radial)
fit=lm(NTAV~age+DM,data=radial)
ggPredict(fit,interactive=TRUE)
```

```
require(TH.data)
fit=glm(cens~pnodes*horTh,data=GBSG2,family=binomial)
ggPredict(fit,se=TRUE)
fit1=glm(cens~pnodes*age,data=GBSG2,family=binomial)
ggPredict(fit1)
ggPredict(fit1,colorn=100,jitter=FALSE,interactive=TRUE)
fit2=glm(cens~pnodes*age*horTh,data=GBSG2,family=binomial)
ggPredict(fit2,colorn=100,jitter=FALSE,interactive=TRUE)
```

---

ggRadar *Draw a radar chart*

Description

Draw a radar chart

Usage

```
ggRadar(data, mapping = NULL, rescale = TRUE, legend.position = "top",
  colour = "red", alpha = 0.3, size = 3, ylim = NULL,
  scales = "fixed", use.label = FALSE, interactive = FALSE, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
rescale	A logical value. If TRUE, all continuous variables in the data.frame are rescaled.
legend.position	Legend position. One of c("top","bottom","left","right","none")
colour	A name of color to be assigned as a color variable
alpha	Any numbers from 0 (transparent) to 1 (opaque)
size	Point size
ylim	A numeric vector of length 2, giving the y coordinates ranges.
scales	should Scales be fixed ("fixed", the default), free ("free"), or free in one dimension ("free_x", "free_y")
use.label	Logical. Whether or not use column label
interactive	A logical value. If TRUE, an interactive plot will be returned
...	other arguments passed on to geom_point

Value

An interactive radar plot

Examples

```
require(ggplot2)
require(ggiraph)
require(plyr)
require(reshape2)
require(moonBook)
require(sjmisc)
ggRadar(data=iris,aes(group=Species))
ggRadar(data=mtcars,interactive=TRUE)
ggRadar(data=mtcars,aes(colour=am,facet=cyl),interactive=TRUE)
ggRadar(data=acs,aes(colour=Dx,facet=Dx))
ggRadar(iris,aes(x=c(Sepal.Length,Sepal.Width,Petal.Length,Petal.Width)))
```

---

ggRose *Draw an interactive Rose plot*

Description

Draw an interactive Rose plot

Usage

```
ggRose(data, mapping, palette = "Reds", color = "black", size = 0.1, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
palette	A character string indicating the color palette
color	Bar colour
size	Bar size
...	other arguments passed on to geom_bar_interactive.

Value

An interactive Rose plot

Examples

```
require(moonBook)
require(ggplot2)
require(ggiraph)
require(plyr)
ggRose(rose,aes(x=Month,fill=group,y=value),stat="identity",interactive=TRUE)
ggRose(acs,aes(x=Dx,fill=smoking),interactive=TRUE)
```

ggSpine *Draw an interactive spinogram*

Description

Draw an interactive spinogram

Usage

```
ggSpine(data, mapping, stat = "count", position = "fill",
  palette = "Blues", interactive = FALSE, polar = FALSE,
  reverse = FALSE, width = NULL, maxylev = 6, digits = 1,
  colour = "black", size = 0.2, addlabel = TRUE, labelsize = 5,
  minlabelgroup = 0.04, minlabel = 2, hide.legend = TRUE,
  ylabelMean = FALSE, sec.y.axis = FALSE, use.label = TRUE,
  use.labels = TRUE, labeller = NULL, facetbycol = TRUE, xangle = NULL,
  yangle = NULL, xreverse = FALSE, yreverse = FALSE, ...)
```

Arguments

data	A data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
stat	The statistical transformation to use on the data for this layer, as a string c("count","identity")
position	Position adjustment. One of the c("fill","stack","dodge")
palette	A character string indicating the color palette
interactive	A logical value. If TRUE, an interactive plot will be returned
polar	A logical value. If TRUE, coord_polar() function will be added
reverse	If true, reverse palette colors
width	Bar width
maxylev	integer indicating threshold of unique value to be treated as a categorical variable
digits	integer indicating the number of decimal places
colour	Bar colour
size	Bar size
addlabel	A logical value. If TRUE, label will be added to the plot
labelsize	label size
minlabelgroup	minimal threshold of label group. Default is 0.04
minlabel	minimal threshold of label. Default is 2
hide.legend	A logical value. If TRUE, the legend is removed and y labels are recreated
ylabelMean	Logical. If TRUE, y axis labels are positioned at mean value.
sec.y.axis	Logical. If TRUE, secondary y axis is shown at the right side.
use.label	Logical. Whether or not use column label in case of labelled data

use.labels	Logical. Whether or not use value labels in case of labelled data
labeller	A function that takes one data frame of labels and returns a list or data frame of character vectors.
facetbycol	Logical. If TRUE, facet by column.
xangle	angle of axis label
yangle	angle of axis label
xreverse	Logical. Whether or not reverse x-axis
yreverse	Logical. Whether or not reverse y-axis
...	other arguments passed on to geom_rect_interactive.

Value

An interactive spinogram

Examples

```
require(moonBook)
require(ggplot2)
acs$Dx=factor(acs$Dx,levels=c("Unstable Angina","NSTEMI","STEMI"))
ggSpine(data=acs,aes(x=age,fill=Dx,facet=sex),palette="Reds")
ggSpine(data=acs,aes(x=age,fill=Dx,facet=sex),facetbycol=FALSE,minlabelgroup=0.02)
ggSpine(data=acs,aes(x=age,fill=Dx),palette="Reds")
ggSpine(data=acs,aes(x=smoking,fill=Dx),palette="Reds")
ggSpine(data=acs,aes(x=DM,fill=Dx,facet=sex),palette="Reds")
ggSpine(data=acs,aes(x=Dx,fill=smoking,facet=sex),palette="Reds")
ggSpine(data=acs,aes(x=DM,facet=smoking,fill=Dx),sec.y.axis=TRUE)
ggSpine(data=acs,aes(x=DM,facet=smoking,fill=Dx),facetbycol=FALSE)
ggSpine(mtcars,aes(x=gear,fill=carb))
ggSpine(mtcars,aes(x=gear,fill=carb,facet=am))
ggSpine(data=acs,aes(x=Dx,fill=smoking),position="dodge")
ggSpine(data=acs,aes(x=Dx,fill=smoking),position="stack")
```

---

ggViolin *Draw violin plots of a data.frame*

Description

Draw violin plots of a data.frame

Usage

```
ggViolin(data, mapping = NULL, rescale = FALSE, horizontal = FALSE,
  alpha = 0.1, addBoxplot = TRUE, addMean = TRUE, use.label = TRUE,
  use.labels = TRUE, ...)
```

Arguments

data	a data.frame
mapping	Set of aesthetic mappings created by aes or aes_.
rescale	if true, rescale the data.frame
horizontal	if true, horizontal boxplots will be made
alpha	An integer. Default value is 0.1.
addBoxplot	Whether add boxplots on the plot
addMean	Whether add mean point on the plot
use.label	Logical. Whether or not use column label in case of labelled data
use.labels	Logical. Whether or not use value labels in case of labelled data
...	other arguments passed on to geom_boxplot_interactive

Examples

```
require(ggplot2)
require(ggiraph)
require(reshape2)
ggViolin(iris)
ggViolin(iris,aes(fill=Species),rescale=TRUE)
ggViolin(mtcars,aes(x=c(mpg,cyl,disp,hp,drat),color=am),rescale=TRUE)
ggViolin(mtcars,aes(x=c(mpg,cyl,disp,hp,drat)),rescale=TRUE)
```

---

makeEq *Make a regression equation of a model*

Description

Make a regression equation of a model

Usage

```
makeEq(model, digits = 2)
```

Arguments

model	A model of class "lm" or"glm" or"loess"
digits	integer indicating the number of decimal places

model2df *Make a data.frame of yhat with a model*

Description

Make a data.frame of yhat with a model

Usage

```
model2df(model, x = NULL, n = 100)
```

Arguments

model	A model of class "lm" or"glm" or"loess"
x	A optional vector of explanatory variable
n	number of observations.

myscale *Rescale a vector with which minimum value 0 and maximum value 1*

Description

Rescale a vector with which minimum value 0 and maximum value 1

Usage

```
myscale(x)
```

Arguments

x	A numeric vector

myscale2 *Rescale a vector with which minimum value 0 and maximum value 1*

Description

Rescale a vector with which minimum value 0 and maximum value 1

Usage

```
myscale2(x, minx = 0, maxx = 1)
```

Arguments

x	A numeric vector
minx	The minimum value
maxx	The maximum value

newColName *find new column name*

Description

find new column name

Usage

```
newColName(df)
```

Arguments

df	a data.frame

num2cut *Computing breaks for make a histogram of a continuous variable*

Description

Computing breaks for make a histogram of a continuous variable

Usage

```
num2cut(x)
```

Arguments

x	A continuous variables

Value

A list contains a factor and a numeric vector

num2factorDf *Make numeric column of a data.frame to factor*

Description

Make numeric column of a data.frame to factor

Usage

```
num2factorDf(data, colnames, maxfactorno = 6)
```

Arguments

data	a data.frame
colnames	Column names to be converted
maxfactorno	maximum unique value of column

p2chr *Convert p values to character*

Description

Convert p values to character

Usage

```
p2chr(x)
```

Arguments

x	A vector

palette2colors *Extract colors from a palette*

Description

Extract colors from a palette

Usage

```
palette2colors(name, reverse = FALSE)
```

Arguments

name	A palette name from the RColorBrewer package
reverse	if true, reverse colors

pastecolon *Paste character vectors separated by colon*

Description

Paste character vectors separated by colon

Usage

```
pastecolon(...)
```

Arguments

...	Arguments passed on to paste()

pastecomma *Add comma to vectors*

Description

Add comma to vectors

Usage

```
pastecomma(...)
```

Arguments

...	Argument passed to paste0

rescale_df *Rescale all numeric variables of a data.frame except grouping variable*

Description

Rescale all numeric variables of a data.frame except grouping variable

Usage

```
rescale_df(data, groupvar = NULL)
```

Arguments

data	A data.frame
groupvar	A column name used as a grouping variable

Value

A rescaled data.frame

rose *Rose sales among 7 groups in a year*

Description

A phony dataset representing rose sales

Usage

```
rose
```

Format

An object of class `data.frame` with 84 rows and 3 columns.

Details

@format A data.frame with 84 rows and 3 columns

group group A to G

Month Month 1 to 12

value Rose sales amount

subcolors *Make a subcolors according to the mainCol*

Description

Make a subcolors according to the mainCol

Usage

```
subcolors(.dta, main, mainCol)
```

Arguments

`.dta`	A data.frame
`main`	A character string of column name used as a main variable
`mainCol`	A main color

summarySE *Summarize a continuous variable by groups with mean, sd and SE*

Description

Summarize a continuous variable by groups with mean, sd and SE

Usage

```
summarySE(data = NULL, measurevar, groupvars = NULL, conf.interval = 0.95,
  na.rm = TRUE, .drop = TRUE)
```

Arguments

data	A data.frame
measurevar	A name of variable to measure a mean and sd
groupvars	Name(s) of variable used as a grouping variables
conf.interval	confidence interval
na.rm	A logical value indicating whether or not remove NA values
.drop	should combinations of variables that do not appear in the input data be preserved (FALSE) or dropped (TRUE, default)

Value

A data.frame summarized a continuous variable by groups with mean, sd and SE

taco *Taco ratings by age group*

Description

Taco ratings by ShellType, AgeGroup and Filling source: Communicating experiment results with R

Usage

```
taco
```

Format

An object of class `data.frame` with 136 rows and 4 columns.

Details

@format A data.frame with 136 rows and 4 columns

ShellType Hard or Soft

Fillings Fillings of taco

AgeGroup AgeGroup One of the c("<13","13-20","21-39","40+",)

Rating A numeric. Rating of taco

---

theme_clean *Clean theme for PieDonut plot*

Description

Clean theme for PieDonut plot

Usage

```
theme_clean(base_size = 12)
```

Arguments

base_size	An interger, default 12.

---

theme_clean2 *Clean theme for ggCor*

Description

Clean theme for ggCor

Usage

```
theme_clean2(base_size = 12, xangle = 45, yangle = 0)
```

Arguments

base_size	base font size
xangle	x-axis text angle
yangle	y-axis text angle

`unselectNumeric` *Unselect numeric column of a data.frame*

Description

Unselect numeric column of a data.frame

Usage

```
unselectNumeric(data, colnames, maxfactorno = 6)
```

Arguments

`data`	a data.frame
`colnames`	Column names to be converted
`maxfactorno`	maximun unique value of column

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