

Package: KaradaColor (via r-universe)

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Type Package

Title Color Palettes Inspired by Japanese Landscape and Culture

Description The palette includes motifs from Japanese landscape and culture. And it provides commands for color manipulation and 'ggplot2' color scales.

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License GPL (>= 3)

Encoding UTF-8

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Depends R (>= 3.5.0)

Imports crayon, graphics, grDevices, ggplot2

Suggests scales, aRtsy, testthat (>= 3.0.0), vdiff

URL <https://github.com/MasakiFujishima/KaradaColor>

Config/testthat/edition 3

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

RemoteUrl <https://github.com/masakifujishima/karadacolor>

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convert_colTodef *Convert color data to list class*

Description

convert_colTodef This function convert color data to list class.

Usage

```
convert_colTodef(coldata)
```

Arguments

coldata Color data.

Value

list class containing palette name (or color name), original color data (data.frame), column name, and row name.

Examples

```
convert_colTodef(coldata = c("red", "#ff48ac"))
```

image_add_textAcode *Add to image() command text and color code*

Description

image_add_textAcode This function add to image() command text and color code.

Usage

```
image_add_textAcode(
  coldata,
  xlab = NULL,
  ylab = NULL,
  colornames = "color",
  showcode = TRUE
)
```

Arguments

coldata	Color data. Only for matrix class.
xlab	x axis label.
ylab	x axis label.
colornames	Color name.
showcode	Add a color code to the plot.

Value

Display hex color code and color on console.

Examples

```
image_add_textAcode(coldata = t(as.matrix(c("red", "#ff48ac"))),  
                    colornames = "color", showcode = TRUE)
```

kg_create_cc	<i>Create complementary color</i>
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Description

kg_create_cc This function create complementary color.

Usage

```
kg_create_cc(basecols = c("#ff48ac", "red"), alpha = 1)
```

Arguments

basecols	Color data.
alpha	The alpha transparency. Numbers range from 0-1. see argument alpha in rgb .

Value

Return base and complementary color in a data frame

Examples

```
kg_show_console(kg_create_cc())  
kg_plot_color(color = kg_create_cc())
```

kg_create_mc *Monochromatic Color*

Description

kg_create_mc This function create monochromatic color.

Usage

```
kg_create_mc(basecols = "#7F36EF", n = 2, alpha = 1)
```

```
range_RGB(basecols = NULL, n = NULL)
```

Arguments

basecols	Color data.
n	Create n colors of low and high saturation with Color data in the center.
alpha	The alpha transparency. Numbers range from 0-1. see argument alpha in rgb.#'

Value

Return monochromatic color in a data frame

Examples

```
kg_show_console(kg_create_mc())  
kg_plot_color(color = kg_create_mc(basecols = "#d0af4c"))
```

kg_create_tc *Create triad color*

Description

kg_create_tc This function create triad color.

Usage

```
kg_create_tc(basecols = "#4E5C78", alpha = 1)
```

Arguments

basecols	Color data.
alpha	The alpha transparency. Numbers range from 0-1. see argument alpha in rgb.

Value

Return triad color in a data frame

Examples

```
kg_show_console(kg_create_tc())
kg_plot_color(color = kg_create_tc())
```

kg_get_color	<i>Get color palette data</i>
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Description

kg_get_color This function creates a vector of n color palette data for the KaradaColor Package.

Usage

```
kg_get_color(n = 5, name = "Sapporo_Sta", alpha = 1)

kg_get_palette(name = "Sapporo_Sta", alpha = 1)
```

Arguments

n	Number of colors to create.
name	color palette name. (default: "Sapporo_Sta")
alpha	The alpha transparency. Numbers range from 0-1. see argument alpha in rgb .

Value

Vector containing a hex color code representation for the chosen palette.

Examples

```
library("scales")
show_col(kg_get_color(n = 20, name = "Totaru", alpha = 0.5))

library("aRtsy")
set.seed(1234)
canvas_strokes(colors = kg_get_color(name = "Otaru_Unga"),
               neighbors = 1, p = 0.02, iterations = 1,
               resolution = 350)
```

kg_plot_color	<i>Draw the color data</i>
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Description

kg_plot_color This function draw the color data.

Usage

```
kg_plot_color(name = "Sapporo_Sta", color = NULL, showcode = TRUE)
```

Arguments

name	Color palette color palette name. (default: "Sapporo_Sta")
color	Color data. Precedence over name except NULL. (default: NULL)
showcode	Add a color code to the plot.

Value

Vector containing a hex color code representation for the chosen palette

Examples

```
#Draw the color palette of the KaradaColor
kg_plot_color(name = "Amanohashidate", showcode = FALSE)
#Draw the KG_create_cc command
kg_plot_color(color = kg_create_cc(c("#ff48ac", "yellow")), showcode = TRUE)
#Draw the KG_create_tc command
kg_plot_color(color = kg_create_tc("yellow"), showcode = TRUE)
#Color data
kg_plot_color(color = c("gray"), showcode = FALSE)
```

kg_show_console	<i>Display the color palette data set in the console</i>
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Description

kg_show_console This function draws display the color palette data set in the console.

Usage

```
kg_show_console(x = df_KG_palettes)

console_col(x)
```

Arguments

x color palette data.

Value

Vector containing a hex color code representation for the chosen palette

Examples

```
kg_show_console()
```

scale_color_kg	<i>Use color scales on 'ggplot2'</i>
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Description

scale_color_kg Use color palette on 'ggplot2' colors.

Usage

```
scale_color_kg(  
  name = "Sapporo_Sta",  
  alpha = 1,  
  na.value = "red",  
  discrete = TRUE  
)
```

```
scale_colour_kg(  
  name = "Sapporo_Sta",  
  alpha = 1,  
  na.value = "red",  
  discrete = TRUE  
)
```

Arguments

name color palette name. (default: "Sapporo_Sta")
alpha The alpha transparency. Numbers range from 0-1. see argument alpha in [rgb](#).
na.value Color of missing value.
discrete Generate a discrete palette. (FALSE - generate continuous palette)

Value

Create a user defined color palette for ggplot2.

Examples

```
library("ggplot2")
ggplot(data = diamonds, aes(x = color, y = price,
                             color = color, fill = color)) +
  geom_boxplot() +
  scale_color_kg(name = "Hanamushiro", alpha = 0.2) +
  scale_fill_kg(name = "Hokkaido_Sky", alpha = 0.2) +
  theme_dark()
```

 scale_fill_kg

Use Color fills on 'ggplot2'

Description

scale_fill_kg Use color palette on 'ggplot2' fills.

Usage

```
scale_fill_kg(
  name = "Sapporo_Sta",
  alpha = 1,
  na.value = "red",
  discrete = TRUE
)
```

Arguments

name	color palette name. (default: "Sapporo_Sta")
alpha	The alpha transparency. Numbers range from 0-1. see argument alpha in rgb .
na.value	Color of missing value.(default: "red")
discrete	Generate a discrete palette. (FALSE - generate continuous palette)

Value

Create a user defined color palette for 'ggplot2'.

Examples

```
set.seed(1)
x <- LETTERS[1:20]
y <- paste0("var", seq(1,20))
data <- expand.grid(X=x, Y=y)
data$Z <- sample(c(NA, rnorm(15)), 20, replace = TRUE)
library("ggplot2")
ggplot(data, aes(X, Y, fill= Z)) +
  geom_tile() +
  scale_fill_kg(discrete = FALSE, name = "Hanamushiro",
               alpha = 0.4, na.value = "red")
```


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