Package 'unikn'

January 6, 2023

Type Package

Title Graphical Elements of the University of Konstanz's Corporate Design

Version 0.8.0

Date 2023-01-06

Maintainer Hansjoerg Neth <h.neth@uni.kn>

Description Define and use graphical elements of corporate design manuals in R. The 'unikn' package provides color functions (by defining dedicated colors and color palettes, and commands for finding, changing, viewing, and using them) and styled text elements (e.g., for marking, underlining, or plotting colored titles). The pre-defined range of colors and text decoration functions is based on the corporate design of the University of Konstanz <https://www.uni-konstanz.de/>, but can be adapted and extended for other purposes or institutions.

Depends R (>= 3.4.0)

Imports utils, cli, ggplot2

Suggests knitr, rmarkdown, spelling

Collate 'color_def_1.R' 'color_def_2.R' 'util.R' 'util_color.R' 'util_plot.R' 'color_fun_1.R' 'color_fun_2.R' 'plot_box.R' 'plot_box_calls.R' 'plot_text.R' 'plot_text_calls.R' 'plot_themes.R' 'plot_kn.R' 'plot_demo.R' 'add_pals.R' 'start_unikn.R'

Encoding UTF-8

License CC BY-SA 4.0

URL https://CRAN.R-project.org/package=unikn

BugReports https://github.com/hneth/unikn/issues

VignetteBuilder knitr

RoxygenNote 7.2.1

Language en-US

NeedsCompilation no

Author Hansjoerg Neth [aut, cre] (<https://orcid.org/0000-0001-5427-3141>),
Nico Gradwohl [aut] (<https://orcid.org/0000-0002-8703-905X>)

Repository CRAN

Date/Publication 2023-01-06 10:00:02 UTC

R topics documented:

---

ac *Adjust color transparency*

Description

ac adjusts the transparency of a color or color palette col to an opacity level alpha (in [0, 1]).

Usage

```
ac(col, alpha = 0.5, use_names = TRUE)
```

Arguments

col	A (required) color or color palette (as a vector).
alpha	A factor modifying the opacity alpha (as alpha.f in adjustcolor) to a value in [0, 1]. Default: alpha = .50 (i.e., medium opacity).
use_names	A logical value indicating whether color names should be adjusted to include the values of alpha. Default: use_names = TRUE.

Details

ac is mostly a wrapper for adjustcolor of the **grDevices** package, but allows for more flexible combinations of (multiple) col and alpha values.

The name ac is an abbreviation of "adjust color", but is also a mnemonic aid for providing "air conditioning".

Value

A color vector of the same length as col, transformed by adjustcolor.

See Also

seecol for plotting/seeing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other color functions: demopal(), grepal(), newpal(), seecol(), shades_of(), simcol(), usecol()

Examples

```
ac("black")  # using alpha = .5 by default

# multiple colors:
cols <- ac(c("black", "gold", "deepskyblue"), alpha = .50)
seecol(cols, main = "Transparent colors")

# multiple alphas:
blacks <- ac("black", alpha = 5:0/5)
seecol(blacks, main = "One col several alpha values")

bgc <- ac(c("black", "gold"), alpha = 1:6/6)
seecol(bgc, main = "More alpha values than cols")

# Using a color palette:
seecol(ac(pal_unikn_pref, 2/3), main = "Adding color transparency by ac()")

# Color names:
seecol(ac(col = pal_unikn_pref, alpha = c(1/5, 4/5), use_names = TRUE))
seecol(ac(col = pal_unikn_pref, alpha = c(1/5, 4/5), use_names = FALSE))
```

Bordeaux *uni.kn color Bordeaux*

Description

Bordeaux provides the preferred color of pal_bordeaux (as an atomic HEX character value) and is defined as pal_bordeaux[[4]].

Usage

```
Bordeaux
```

Format

An object of class character of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_bordeaux for the corresponding color palette; pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Grau, Karpfenblau, Peach, Petrol, Pinky, Seeblau, Seegruen, Signal

Examples

```
Bordeaux  # HEX character "#8E2043" (as value)
all.equal(Bordeaux, pal_bordeaux[[4]])  # TRUE (same HEX values)

seecol(Bordeaux)  # view color and details
```

`caltech_pal_1` *Primary and neutral colors of Caltech*

Description

`caltech_pal_1` provides the primary and 7 neutral colors of the California Institute of Technology, CA, USA.

Usage

```
caltech_pal_1
```

Format

An object of class `character` of length 8.

Details

Caltech's primary orange color is defined as `Pantone MS 1585c` (for coated and matte print jobs, `PMS 151` for uncoated print jobs). Use this color for small highlights, rather than large areas.

Caltech's 7 neutral colors complement the primary `Caltech orange` and allow to convey a serious, sober, and traditional impression.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-28.

Source

Color definitions are based on https://identity.caltech.edu/colors.

See Also

caltech_pal_2 for Caltech's primary and deep colors; caltech_pal_3 for Caltech's bright colors; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
caltech_pal_1
seecol(caltech_pal_1, main = "Primary and neutral colors of Caltech")
demopal(caltech_pal_1, type = 4, seed = 1,
        main = "Using the primary and neutral colors of Caltech")
```

---

caltech_pal_2 *Primary and deep colors of Caltech*

Description

caltech_pal_2 provides the primary and 4 deep colors of the California Institute of Technology, CA, USA.

Usage

```
caltech_pal_2
```

Format

An object of class character of length 5.

Details

Caltech's primary orange color is defined as Pantone MS 1585c (for coated and matte print jobs, PMS 151 for uncoated print jobs). Use this color for small highlights, rather than large areas.

Caltech's 4 deep colors add contrast to the primary Caltech orange as well as the neutral colors (of caltech_pal_1), and are used to provide depth and texture to communications materials.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-28.

Source

Color definitions are based on https://identity.caltech.edu/colors.

See Also

caltech_pal_1 for Caltech's primary and neutral colors; caltech_pal_3 for Caltech's bright colors; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
caltech_pal_2
seecol(caltech_pal_2, main = "Primary and deep colors of Caltech")
demopal(caltech_pal_2, type = 2, seed = 2,
        main = "Using the primary and deep colors of Caltech")
```

---

caltech_pal_3 *Primary and bright colors of Caltech*

Description

caltech_pal_3 provides the primary and 7 bright colors of the California Institute of Technology, CA, USA.

Usage

```
caltech_pal_3
```

Format

An object of class character of length 8.

Details

Caltech's primary orange color is defined as Pantone MS 1585c (for coated and matte print jobs, PMS 151 for uncoated print jobs). Use this color for small highlights, rather than large areas.

Caltech's 7 bright colors provide an opportunity to adjust the temper of communication materials from subtle to bold. These colors should be used as carefully selected accents to the primary, neutral, and deep colors (of caltech_pal_1 and caltech_pal_2).

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-28.

Source

Color definitions are based on https://identity.caltech.edu/colors.

See Also

caltech_pal_1 for Caltech's primary and neutral colors; caltech_pal_2 for Caltech's primary and deep colors; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
caltech_pal_3
seecol(caltech_pal_3, main = "Primary and bright colors of Caltech")
demopal(caltech_pal_3, type = 3, seed = 1,
        main = "Using the primary and bright colors of Caltech")
```

demopal *Demonstrate a color palette (in a plot)*

Description

demopal provides an example plot of some type to illustrate a color palette pal.

Usage

```
demopal(pal = pal_unikn, type = NA, pal_name = NULL, ...)
```

Arguments

pal	A color palette (to be illustrated). Default: pal = pal_unikn.
type	The type of plot to be used (as character string or integer value). Permissible types are "bar", "curve", "mosaic", "polygon", or "scatter" (or an integer value from 1 to 5, respectively).
pal_name	A name for the input color palette pal (shown on bottom-right margin). Default: pal_name = NULL (deparsing to input name).
...	Auxiliary arguments passed to type-specific plots (see details).

Details

The demopal wrapper function passes a range of arguments to more specific functions. Common arguments include:

- col_par Default color for par(col);
- alpha Default value for color transparency (in 0:1);
- n A scaling parameter (for random data generation);
- main plot title (on top);
- sub plot subtitle (on right margin);
- seed A random seed value (for reproducible randomness).

The fit between a color palette pal and plot type depends on the uses of colors in a plot. For instance, overlaps of transparent color areas can be evaluated with plot type = "curve" or plot type = "scatter" (and 0 < alpha < 1).

Some functions additionally accept type-specific arguments (e.g., beside, horiz, and as_prop, for plot type = "bar", and cex for plot type = "scatter").

The type-specific functions usually generate some random data (scaled by a parameter n) that is being plotted. This data is returned (as an invisible R object) to enable a plot's reconstruction.

Value

The random data that was plotted (as an invisible R object).

See Also

seepal for plotting color palettes; usecol for using color palettes; shades_of to defining shades of a given color; ac for adjusting color transparency; pal_unikn for the default uni.kn color palette.

Other color functions: ac(), grepal(), newpal(), seecol(), shades_of(), simcol(), usecol()

Examples

```
demopal(pal = pal_petrol, type = 1)

my_pal <- c(rev(pal_pinky), pal_seeblau)
# Selecting plot type:
demopal(my_pal, type = 2)          # by numeric index
demopal(my_pal, type = "polygon")  # by name

# Passing type-specific arguments:
demopal(type = "scatter", col_par = "black", n = 200, cex = c(2, 4, 6), seed = 101)
```

---

eth_pal_1 *Default colors of the ETH Zurich*

Description

eth_pal_1 provides the seven default colors of the ETH Zürich, Switzerland.

Usage

```
eth_pal_1
```

Format

An object of class character of length 7.

Details

Lighter shades of the ETH Zurich colors are provided by eth_pal_2.

The Swiss abbreviation "ETH" stands for "Eidgenössische Technische Hochschule".

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://ethz.ch/staffnet/en/service/communication/corporate-design/digital-media/web-colours.html.

See Also

eth_pal_2 and eth_pal_3 for alternative colors of the ETH Zurich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
eth_pal_1
seecol(eth_pal_1, main = "Default colors of the ETH Zürich")  # view color palette
demopal(eth_pal_1, type = 3, main = "Using the default colors of ETH Zurich")
```

---

eth_pal_2 *Lighter shades of the ETH Zurich colors*

Description

eth_pal_2 provides lighter shades of the default colors of the ETH Zürich, Switzerland.

Usage

```
eth_pal_2
```

Format

An object of class character of length 7.

Details

The primary colors of the ETH Zurich are provided by eth_pal_1.

The Swiss abbreviation "ETH" stands for "Eidgenössische Technische Hochschule".

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://ethz.ch/staffnet/en/service/communication/corporate-design/digital-media/web-colours.html.

See Also

eth_pal_1 and eth_pal_3 for alternative colors of the ETH Zurich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
eth_pal_2
seecol(eth_pal_2, main = "Light shades of the ETH Zurich")  # view color palette
demopal(eth_pal_2, type = 4, main = "Light shades of ETH Zürich colors")
```

---

eth_pal_3 *Black and grey colors of the ETH Zurich*

Description

eth_pal_3 provides the black and gray colors used by the ETH Zürich, Switzerland.

Usage

```
eth_pal_3
```

Format

An object of class character of length 7.

Details

The color "black" and six shades of gray can be used to visually structure content and delineate different elements.

Note that eth_pal_3 mixes colors of varying opacity / transparency levels.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://ethz.ch/staffnet/en/service/communication/corporate-design/digital-media/web-colours.html.

See Also

eth_pal_1 and eth_pal_2 for alternative colors of the ETH Zurich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
eth_pal_3
seecol(eth_pal_3, main = "Black and grey colors of the ETH Zurich")  # view color palette
demopal(eth_pal_3, type = 2, main = "Black and gray colors of ETH Zürich")
```

fu_pal_0 *Primary colors of the Free University Berlin*

Description

fu_pal_0 provides the two primary colors of the Free University Berlin, Germany.

Usage

```
fu_pal_0
```

Format

An object of class character of length 2.

Details

The dark "FU blue" implies consistency, seriosity and respect. It is defined as Pantone 280C and approximated by CMYK 100/72/0/18.5, RGB 0/51/102, and HEX #003366.

The bright "FU green" implies renewal and mobility. It is is defined as Pantone 381C and approximated by CMYK 18.5/0/91/0, RGB 153/204/0, and HEX #99CC00.

See fu_pal_1 for a corresponding color gradient.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-03.

Source

Color definitions are based on https://www.fu-berlin.de/sites/corporate-design/grundlagen/farben/index.html.

See Also

fu_pal_1 for a corresponding color gradient of the FU Berlin; fu_pal_2 for secondary colors of the FU Berlin; fu_pal_3 for a blue color gradient of the FU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3,

uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
fu_pal_0
seecol(fu_pal_0, main = "Primary colors of the FU Berlin")  # view color palette
demopal(fu_pal_0, type = 1, main = "Primary colors of the FU Berlin")
```

---

fu_pal_1 *Primary color gradient of the Free University Berlin*

Description

fu_pal_1 provides a gradient of the two primary colors of the Free University Berlin, Germany.

Usage

```
fu_pal_1
```

Format

An object of class character of length 11.

Details

See fu_pal_0 for the two primary colors and the ac or usecol functions for creating alternative color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-03.

Source

Color definitions are based on https://www.fu-berlin.de/sites/corporate-design/grundlagen/farben/index.html.

See Also

fu_pal_0 for primary colors of the FU Berlin; fu_pal_2 for secondary colors of the FU Berlin; fu_pal_3 for a blue color gradient of the FU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
fu_pal_1
seecol(fu_pal_1, main = "Primary color gradient of the FU Berlin")  # view color palette
demopal(fu_pal_1, type = 4, seed = 2, main = "Primary color gradient of the FU Berlin")
```

---

fu_pal_2 *Secondary and grey colors of the Free University Berlin*

Description

fu_pal_2 provides the three accent colors and seven grey colors of the Free University Berlin, Germany.

Usage

```
fu_pal_2
```

Format

An object of class character of length 10.

Details

The three accent colors support the two primary colors of fu_pal_0 but should not dominate the overall impression.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-03.

Source

Color definitions are based on https://www.fu-berlin.de/sites/corporate-design/grundlagen/farben/index.html.

See Also

fu_pal_0 for primary colors of the FU Berlin; fu_pal_1 for a corresponding color gradient of the FU Berlin; fu_pal_3 for a blue color gradient of the FU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
fu_pal_2
seecol(fu_pal_2, main = "Secondary colors of the FU Berlin")  # view color palette
demopal(fu_pal_2, type = 5, main = "Accent and grey colors of the FU Berlin")
```

---

fu_pal_3 — *Blue color gradient of the Free University Berlin*

Description

fu_pal_3 provides a gradient of the blue primary color of the Free University Berlin, Germany.

Usage

```
fu_pal_3
```

Format

An object of class character of length 10.

Details

See fu_pal_0 for the two primary colors and the ac and usecol functions for creating alternative color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-03.

Source

Color definitions are based on https://www.fu-berlin.de/sites/corporate-design/grundlagen/farben/index.html.

See Also

fu_pal_0 for primary colors of the FU Berlin; fu_pal_1 for primary color gradient of the FU Berlin; fu_pal_2 for secondary colors of the FU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
fu_pal_3
seecol(fu_pal_3, main = "Blue color gradient of the FU Berlin")  # view color palette
demopal(fu_pal_3, type = 3, main = "Blue color gradient of the FU Berlin")
```

Grau *uni.kn color Grau*

Description

Grau provides the preferred color of pal_grau (as an atomic HEX character value) and is defined as pal_grau[[3]].

Usage

```
Grau
```

Format

An object of class `character` of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

`pal_grau` for the corresponding color palette; `pal_unikn` for the unikn default color palette with all 5 colors of `pal_seeblau`; `pal_unikn_pref` for a uni.kn color palette with all preferred colors; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes.

Other preferred colors: `Bordeaux`, `Karpfenblau`, `Peach`, `Petrol`, `Pinky`, `Seeblau`, `Seegruen`, `Signal`

Examples

```
Grau  # HEX character "#9AA0A7" (as value)
all.equal(Grau, pal_grau[[3]])  # TRUE (same HEX values)

seecol(Grau)  # view color and details
```

---

grepal *Get a vector of colors whose names match a regular expression*

Description

`grepal` returns a vector of colors whose names match a regular expression (regex).

Usage

```
grepal(pattern, x = colors(), ignore_case = TRUE, plot = TRUE)
```

Arguments

`pattern`	A regular expression (specified as a string/character object).
`x`	A vector of R color names or a data frame of named colors (i.e., whose names can be searched). Default: `x = colors()`.
`ignore_case`	Should the case of pattern be ignored (passed to `ignore.case` of the `grep` function)? Default: `ignore_case = TRUE`.
`plot`	Boolean: Plot the output (using `seecol`)? Default: `plot = TRUE`.

Details

By default, the **base** R vector of named colors (i.e., `colors()`) is searched for names matching a `pattern` (which can be a simple string or regular expression).

If `x` (i.e., the object to be searched) is provided, it is must be a vector of color names or a data frame of named color objects (i.e., a color palette).

If `plot = TRUE`, `grepal` also visualizes the detected colors (by passing its result to `seecol`, as a side-effect).

This function facilitates searching colors by name and yields (a vector of) colors of similar color hue (provided that the color's hue is expressed in a color's name). Its name `grepal` is an abbreviation of `grep` and "pal".

See Also

`seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `newpal` for defining new color palettes; `shades_of` to defining shades of a given color; `ac` for adjusting color transparency; `pal_unikn` for the default uni.kn color palette.

Other color functions: `ac()`, `demopal()`, `newpal()`, `seecol()`, `shades_of()`, `simcol()`, `usecol()`

Examples

```
grepal("tan")

# With regular expressions:
some_grey  <- grepal("gr(a|e)y", plot = FALSE)
start_grey <- grepal("^gr(a|e)y", plot = FALSE)
only_grey  <- grepal("^gr(a|e)y$", plot = FALSE)

length(some_grey)
length(only_grey)

# With other color objects (df as x):
grepal("blau", x = pal_unikn)
grepal("SEE", x = pal_unikn_pref, ignore_case = FALSE)

# Applications:
seecol(grepal("white"), col_bg = "lightblue2", main = "See 'white' colors()")

olives  <- grepal("olive", plot = FALSE)
oranges <- grepal("orange", plot = FALSE)
seecol(list(olives, oranges),
       pal_names = c("olives", "oranges"),
       main = "Comparing olives and oranges")
```

heading *Plot a heading (as marked text elements)*

Description

heading plots 1 or more text strings (provided as a character vector labels) as a heading to an (existing or new) plot and places a colored box behind each label to mark it (i.e., highlighting the heading).

Usage

```
heading(
  labels,
  x = 0,
  y = 0.8,
  x_layout = NA,
  y_layout = "flush",
  col = "black",
  col_bg = "default",
  cex = 2,
  font = 2,
  new_plot = "slide"
)
```

Arguments

labels	A character vector specifying the text labels to be plotted.
x	A numeric vector of x-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: x = 0.
y	A numeric vector of y-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: y = .8.
x_layout	An optional numeric vector or character string to control the horizontal positions of labels. Numeric values are interpreted as increments to values of x and recycled (to enable stepwise or alternating patterns). 3 character string options are: "center" (i.e., center wrt. first label or plot center), "left" (i.e., left wrt. first label or plot center), "right" (i.e., right wrt. first label or plot center). Default: x_layout = NA (i.e., using values of x).
y_layout	A numeric value or character string to control the vertical positions of labels. Numeric values are interpreted as increments to values of y[1] and recycled (to enable stepwise or alternating patterns). 2 character string options are: "even" (i.e., even distribution of labels across available y-space) and "flush" (i.e., no space between adjacent labels, i.e., y_layout = 0). Default: y_layout = "flush".

col	The color(s) of the text label(s). Default: col_lbl = "black".
col_bg	The color(s) to highlight or fill the rectangle(s) with. Default: col_bg = "default" (to automatically select different shades of pal_seeblau).
cex	Numeric character expansion factor(s), multiplied by par("cex") to yield the character size(s). Default: cex = 2.
font	The font type(s) to be used. Default: font = 2 (i.e., bold).
new_plot	Boolean: Should a new plot be generated? Set to "blank" or "slide" to create a new plot, and to "none" to add to an existing plot. Default: new_plot = "slide" (i.e., create a new slide).

Details

Text formatting parameters (like col, col_bg, cex, font) are recycled to match length(labels).

heading uses the base graphics system graphics::.

See Also

slide and xbox to create simple plots (without text).

Examples

```
heading(labels = c("This is a headline", "containing two lines."))

# Note the warning:
heading(labels = c("Headlines", "with 3 or more lines",
                   "should not be arranged", "in such a step-wise fashion."))

# Avoiding the warning:
heading(labels = c("Headlines with", "3 or more lines should",
                     "not be arranged", "in a step-wise fashion."))

# Using non-default colors:
heading(labels = c("Ene,", "mene, miste,", "es rappelt", "in der Kiste."),
      cex = 1.6, col = "white", col_bg = usecol(c(Pinky, Seegruen, Bordeaux, Karpfenblau)))

# Using x_layout and y_layout:
heading(labels = c("Ene,", "mene, miste,", "es rappelt", "in der Kiste."),
        cex = 1.6, col = "white", col_bg = usecol(pal_pinky[2:5]),
        x = NA, y = .6, x_layout = "right", y_layout = "flush")

#' @family text functions
```

hu_pal_1 *Primary colors of the Humboldt University Berlin*

Description

hu_pal_1 provides the three primary colors of the Humboldt University Berlin, Germany.

Usage

```
hu_pal_1
```

Format

An object of class character of length 3.

Details

The color "HU blau" is defined as Pantone 294 and approximated by RGB 0/55/108. Other approximations include CMYK 100/60/0/20, RGB 0/51/102 (reduced web scale), and RAL 270 3040.

See the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-30.

Source

Color definitions are based on https://www.hu-berlin.de/de/service/design/basiselemente/farbe.

See Also

hu_pal_2 for secondary colors of the HU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
hu_pal_1
seecol(hu_pal_1, n = 5, main = "5 shades of HU Berlin")  # view color palette
demopal(hu_pal_1, type = 1, main = "Colors of Humboldt University Berlin")
```

`hu_pal_2` *Secondary colors of the Humboldt University Berlin*

Description

`hu_pal_2` provides the primary (blue) color with five corresponding colors of the Humboldt University Berlin, Germany.

Usage

```
hu_pal_2
```

Format

An object of class `character` of length 6.

Details

The primary color `"HU blue"` is defined as Pantone 294 and only approximated by RGB 0/55/108. Other approximations include CMYK 100/60/0/20, RGB 0/51/102 (reduced web scale), and RAL 270 3040.

See the `ac` and `usecol` functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-30.

Source

Color definitions are based on https://www.hu-berlin.de/de/service/design/basiselemente/farbe.

See Also

hu_pal_1 for primary colors of the HU Berlin; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
hu_pal_2
seecol(hu_pal_2, main = "The colors of HU Berlin")  # view color palette
demopal(hu_pal_2, type = 3, main = "Colors of Humboldt University Berlin")
```

Karpfenblau *uni.kn color Karpfenblau*

Description

Karpfenblau provides the preferred color of pal_karpfenblau (as an atomic HEX character value) and is defined as pal_karpfenblau[[4]].

Usage

```
Karpfenblau
```

Format

An object of class character of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_karpfenblau for the corresponding color palette; pal_unikn_pref for a uni.kn color palette with all preferred colors; pal_unikn for the default uni.kn color palette; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Bordeaux, Grau, Peach, Petrol, Pinky, Seeblau, Seegruen, Signal

Examples

```
Karpfenblau  # HEX character "#3E5496" (as value)
all.equal(Karpfenblau, pal_karpfenblau[[4]])  # TRUE (same HEX values)

seecol(Karpfenblau)  # view color and details
```

---

lmu_pal_1 *Primary colors of the LMU Munich*

Description

lmu_pal_1 provides the three primary colors of the Ludwig-Maximilians-Universität München, Germany.

Usage

```
lmu_pal_1
```

Format

An object of class character of length 3.

Details

The color "LMU gruen" is defined as Pantone 348 C/U, RGB 0.136.58, or HEX #00883A. Other approximations include CMYK 100/0/95/15 or HKS 57.

Combining primary and secondary LMU colors: lmu_pal_bipolor <- c(lmu_pal_1[-2], rev(lmu_pal_2), lmu_pal_1[2]) demopal(lmu_pal_bipolor, type = "mosaic", main = "Bipolar colors of LMU")

lmu_pal_linear <- c(lmu_pal_1[-3], lmu_pal_2, lmu_pal_1[3]) demopal(lmu_pal_linear, type = "polygon", seed = 2, main = "Linear colors of LMU")

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-02.

Source

Color definitions are based on the LMU brand guide.

See Also

lmu_pal_2 for secondary colors of the LMU Munich; lmu_pal_3 for accent colors of the LMU Munich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
lmu_pal_1
seecol(lmu_pal_1, main = "The primary colors of LMU München")  # view color palette
demopal(lmu_pal_1, type = 3, main = "Primary colors of LMU Munich")
```

---

lmu_pal_2 *Secondary colors of the LMU Munich*

Description

lmu_pal_2 provides four secondary colors of the Ludwig-Maximilians-Universität München, Germany.

Usage

```
lmu_pal_2
```

Format

An object of class character of length 4.

Details

The secondary colors of lmu_pal_2 are used to support the primary colors of lmu_pal_1.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-02.

Source

Color definitions are based on the LMU brand guide.

See Also

lmu_pal_1 for primary colors of the LMU Munich; lmu_pal_3 for accent colors of the LMU Munich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
lmu_pal_2
seecol(lmu_pal_2, main = "The secondary/grey colors of the LMU München")
demopal(lmu_pal_2, type = 5, main = "Secondary/gray colors of LMU Munich")

# Combining primary and secondary LMU colors:
lmu_pal_bipolor <- c(lmu_pal_1[-2], rev(lmu_pal_2), lmu_pal_1[2])
demopal(lmu_pal_bipolor, type = "mosaic", main = "Bipolar colors of LMU")

lmu_pal_linear <- c(lmu_pal_1[-3], lmu_pal_2, lmu_pal_1[3])
demopal(lmu_pal_linear, type = "polygon", seed = 2, main = "Linear colors of LMU")
```

---

lmu_pal_3 *Accent colors of the LMU Munich*

Description

lmu_pal_3 provides five accent colors of the Ludwig-Maximilians-Universität München, Germany.

Usage

```
lmu_pal_3
```

Format

An object of class character of length 5.

Details

The accent colors of lmu_pal_3 are used sparsely in combination with the primary colors of lmu_pal_1 and the secondary colors of lmu_pal_2.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-02.

Source

Color definitions are based on the LMU brand guide.

See Also

lmu_pal_1 for primary colors of the LMU Munich; lmu_pal_2 for secondary colors of the LMU Munich; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
lmu_pal_3
seecol(lmu_pal_3, main = "Accent colors of the LMU München")  # view color palette
demopal(lmu_pal_3, type = 3, main = "Accent colors of LMU Munich")
```

---

mark *Plot marked (or highlighted) text elements*

Description

mark plots 1 or more text strings (provided as a character vector labels) to an (existing or new) plot and places a colored box behind each label to mark it (i.e., highlight or make it stand out from the background).

Usage

```
mark(
  labels,
  x = 0,
  y = 0.55,
  x_layout = NA,
  y_layout = "even",
  col = "black",
  col_bg = Seeblau,
  cex = 2,
  font = 2,
  new_plot = "none"
)
```

Arguments

labels	A character vector specifying the text labels to be plotted.
x	A numeric vector of x-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: x = 0.
y	A numeric vector of y-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: y = .55.
x_layout	An optional numeric vector or character string to control the horizontal positions of labels. Numeric values are interpreted as increments to values of x and recycled (to enable stepwise or alternating patterns). 3 character string options are: "center" (i.e., center wrt. first label or plot center), "left" (i.e., left wrt. first label or plot center), "right" (i.e., right wrt. first label or plot center). Default: x_layout = NA (i.e., using values of x).
y_layout	A numeric value or character string to control the vertical positions of labels. Numeric values are interpreted as increments to values of y[1] and recycled (to enable stepwise or alternating patterns). 2 character string options are: "even" (i.e., even distribution of labels across available y-space) and "flush" (i.e., no space between adjacent labels, i.e., y_layout = 0). Default: y_layout = "even".
col	The color(s) of the text label(s). Default: col_lbl = "black".
col_bg	The color(s) to highlight or fill the rectangle(s) with. Default: col_bg = Seeblau.
cex	Numeric character expansion factor(s), multiplied by par("cex") to yield the character size(s). Default: cex = 2.
font	The font type(s) to be used. Default: font = 2 (i.e., bold).
new_plot	Should a new plot be generated? Set to "blank" or "slide" to create a new plot. Default: new_plot = "none" (i.e., add to an existing plot).

Details

The positions of the text elements in labels can be specified by providing their coordinates (as x and y arguments) or by providing an initial position and an y_layout (see below).

Text formatting parameters (like `col`, `col_bg`, `cex`, `font`) are recycled to match `length(labels)`.

`mark` uses the base graphics system `graphics::`.

See Also

`slide` and `xbox` to create simple plots (without text).

Other text functions: `post()`, `uline()`, `url_unikn()`

Examples

```
# Basics:
mark(labels = "This is a test.", new_plot = "blank")  # create a new blank plot
mark(labels = "More testing here...", y = .45, col_bg = pal_pinky[[2]])  # add to plot

# Example:
# (a) Mark text on an existing plot:
plot(x = 0, y = 0, type = "n", xlim = c(0, 1), ylim = c(0, 1), xlab = "", ylab = "")
mark(x = 0, y = .8, labels = "Mark (on an existing plot)")  # uses existing plot

# (b) Mark text on a new plot:
mark(x = 0, y = .8, labels = "Mark (and create a new plot)",
     new_plot = "slide")  # starts a new plot

# (c) More text and decorations:
mark(x = 0, y = c(.60, .50),
     labels = c("Highlighting text is simple", "and effective"),
     cex = 1.5, col_bg = c(pal_seeblau[[2]], pal_seeblau[[1]]))

mark(labels = c("It is also flexible", "but to be handled with care"),
     x = .4, y = .3, y_layout = "flush", cex = 1.2,
     col = c("white", "black"), col_bg = c(pal_seeblau[[5]], "gold"))

# Using x_layout and y_layout:
mark(labels = c("Ene,", "mene, miste,", "es rappelt", "in der Kiste."),
     cex = 1.4, font = 2, col = "white", col_bg = Petrol,
     x = NA, y = .85, x_layout = "center", y_layout = "even", new_plot = "slide")

mark(labels = c("One, and", "two, and", "three and four is", "plenty and perhaps enough..."),
     cex = 1.4, font = 2, col = "white", col_bg = Bordeaux,
     x = .5, y = .6, x_layout = c(-.25, +.25), y_layout = 0, new_plot = "slide")
```

`mpg_pal` *Default colors of the Max-Planck-Gesellschaft*

Description

`mpg_pal` provides the default color palette of the Max Planck Society, Germany.

Usage

```
mpg_pal
```

Format

An object of class `character` of length 5.

Details

The two primary colors are at the extreme positions of `mpg_pal`:

1. `MPG green` (at `mpg_pal[1]`): Defined as `Pantone 328`, `CMYK 100/0/57/30`, or `RGB 17/102/86`.
2. `MPG grey` (at `mpg_pal[5]`): Defined as `Pantone 427`, `CMYK 0/0/6/15`, or `RGB 221/222/214`.

At `mpg_pal[3]`, the color `"white"` was added to enable symmetrical color gradients. See examples and the `ac` and `usecol` functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-11.

Source

Color definitions are based on https://docplayer.org/2328711-Max-planck-institut-das-erscheinungsbild-der-html.

See Also

`seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `newpal` for defining new color palettes; `grepal` for finding named colors.

Other contributed color palettes: `caltech_pal_1`, `caltech_pal_2`, `caltech_pal_3`, `eth_pal_1`, `eth_pal_2`, `eth_pal_3`, `fu_pal_0`, `fu_pal_1`, `fu_pal_2`, `fu_pal_3`, `hu_pal_1`, `hu_pal_2`, `lmu_pal_1`, `lmu_pal_2`, `lmu_pal_3`, `rpi_pal_1`, `rpi_pal_2`, `rpi_pal_3`, `rptu_pal`, `uni_bonn_1`, `uni_bonn_2`, `uni_freiburg_0`, `uni_freiburg_1`, `uni_freiburg_2`, `uni_freiburg_blue`, `uni_freiburg_br`, `uni_freiburg_grey`, `uni_freiburg_info`, `uni_goettingen_1`, `uni_goettingen_2`, `uni_goettingen_3`, `uni_hamburg_1`, `uni_hamburg_2`, `uni_jena_1`, `uni_jena_2`, `uni_kiel_1`, `uni_kiel_2`, `uni_koeln_1`, `uni_koeln_2`, `uni_konstanz_1`, `uni_konstanz_2`, `uni_mannheim_1`, `uni_mannheim_2`, `uni_princeton_0`, `uni_princeton_1`, `uni_princeton_2`, `uni_regensburg_1`, `uni_regensburg_2`, `uni_regensburg_3`, `uni_ulm_1`, `uni_ulm_2`

Examples

```
mpg_pal
seecol(mpg_pal, main = "Colors of the Max Planck Society")  # view color palette
demopal(mpg_pal, type = 1, main = "Using the MPG colors")

# Extended version:
mpg_pal_11 <- usecol(c(mpg_pal, "black"), n = 11)
demopal(mpg_pal_11, type = 4, seed = 1, main = "An extended MPG palette")
```

`newpal` *Define a new color palette*

Description

`newpal` allows defining new color palettes (as data frames or vectors).

Usage

```
newpal(col, names = NULL, as_df = FALSE)
```

Arguments

`col`	A required vector of colors (specified as R color names, HEX codes, or RGB values).
`names`	An optional character vector of color names. Default: `names = NULL`, using default color names. Setting `names = NA` removes all color names.
`as_df`	Should the new color palette be returned as a data frame (rather than as a vector)? Default: `as_df = FALSE`.

See Also

`seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `grepal` for finding named colors; `shades_of` to defining shades of a given color; `ac` for adjusting color transparency; `pal_unikn` for the default uni.kn color palette.

Other color functions: `ac()`, `demopal()`, `grepal()`, `seecol()`, `shades_of()`, `simcol()`, `usecol()`

Examples

```
newpal(col = c("black", "white"), names = c("dark", "bright"))

# Example: 3 ways of defining a new color palette:

# (1) From R color names: -----

pal_flag_de <- newpal(col = c("black", "firebrick3", "gold"),
```

```
                      names = c("Schwarz", "Rot", "Gold"))
seecol(pal_flag_de, main = "Colors in the flag of Germany")

# (2) From HEX values: -----

# (a) Google logo colors:
# Source: https://www.schemecolor.com/google-logo-colors.php
color_google <- c("#4285f4", "#34a853", "#fbbc05", "#ea4335")
names_google <- c("blueberry", "sea green", "selective yellow", "cinnabar")
pal_google   <- newpal(color_google, names_google)
seecol(pal_google, main = "Colors of the Google logo", col_brd = "white", lwd_brd = 10)

# (b) German flag (revised):
# Based on a different source at
# <https://www.schemecolor.com/germany-flag-colors.php>:
pal_flag_de_2 <- newpal(col = c("#000000", "#dd0000", "#ffce00"),
                        names = c("black", "red", "gold")
                        )
seecol(pal_flag_de_2, main = "Colors of the German flag (www.schemecolor.com)")

# (c) MPG colors:
pal_mpg <- newpal(col = c("#007367", "white", "#D0D3D4"),
                  names = c("mpg green", "white", "mpg grey")
                  )
seecol(pal_mpg, main = "Colors of the Max Planck Society")

# (3) From RGB values: -----

# A barrier-free color palette
# Source: Okabe & Ito (2002): Color Universal Design (CUD):
#         Fig. 16 of <https://jfly.uni-koeln.de/color/>:

# (a) Vector of colors (as RGB values):
o_i_colors <- c(rgb(  0,   0,   0, maxColorValue = 255),  # black
                rgb(230, 159,   0, maxColorValue = 255),  # orange
                rgb( 86, 180, 233, maxColorValue = 255),  # skyblue
                rgb(  0, 158, 115, maxColorValue = 255),  # green
                rgb(240, 228,  66, maxColorValue = 255),  # yellow
                rgb(  0, 114, 178, maxColorValue = 255),  # blue
                rgb(213,  94,   0, maxColorValue = 255),  # vermillion
                rgb(204, 121, 167, maxColorValue = 255)   # purple
)

# (b) Vector of color names:
o_i_names <- c("black", "orange", "skyblue", "green", "yellow", "blue", "vermillion", "purple")

# (c) Use newpal() to combine colors and names:
pal_okabe_ito <- newpal(col = o_i_colors,
                        names = o_i_names)

seecol(pal_okabe_ito,
       main = "Color-blind friendly color scale (Okabe & Ito, 2002)")
```

```
# (+) Compare custom color palettes: -----

my_pals <- list(pal_flag_de, pal_flag_de_2, pal_google, pal_mpg, pal_okabe_ito)
seecol(my_pals, col_brd = "white", lwd_brd = 5,
       main = "Comparing custom color palettes")
```

---

pal_bordeaux *uni.kn color palette bordeaux*

Description

pal_bordeaux provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Bordeaux).

Usage

```
pal_bordeaux
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_peach and pal_pinky for alternative redish uni.kn color palettes; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_bordeaux
dim(pal_bordeaux)  # 1 5
pal_bordeaux[4]    # preferred (named) color "bordeaux4"
pal_bordeaux[[4]]  # preferred color "bordeaux4" OR "#8E2043"

# Plotting palette:
seecol(pal_bordeaux)
```

pal_grau *uni.kn color palette grau*

Description

pal_grau provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Grau or grey).

Usage

```
pal_grau
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_grau
dim(pal_grau)  # 1 5
pal_grau[3]    # preferred (named) color "grau3"
pal_grau[[3]]  # preferred color "grau3" OR "#9AA0A7"

# Plotting palette:
seecol(pal_grau)
```

pal_karpfenblau *uni.kn color palette karpfenblau*

Description

pal_karpfenblau provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Karpfenblau or blue carp).

Usage

```
pal_karpfenblau
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_seeblau for the default seeblau uni.kn color palette; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_karpfenblau
dim(pal_karpfenblau)  # 1 5
pal_karpfenblau[4]    # preferred (named) color "karpfenblau4"
pal_karpfenblau[[4]]  # preferred color "karpfenblau4" OR "#3E5496"

# Plotting palette:
seecol(pal_karpfenblau)
```

pal_peach *uni.kn color palette peach*

Description

pal_peach provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Peach).

Usage

```
pal_peach
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_pinky and pal_bordeaux for alternative redish uni.kn color palettes; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_peach
dim(pal_peach)  # 1 5
pal_peach[4]    # preferred (named) color "peach4"
pal_peach[[4]]  # preferred color "peach4" OR "#FEA090"

# Plotting palette:
seecol(pal_peach)
```

pal_petrol *uni.kn color palette petrol*

Description

pal_petrol provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Petrol or grue).

Usage

```
pal_petrol
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details, and https://en.wikipedia.org/wiki/New_riddle_of_induction for the portmanteau "grue".

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_seegruen for an alternative green/grue uni.kn color palette; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_petrol
dim(pal_petrol)  # 1 5
pal_petrol[4]    # preferred (named) color "petrol4"
pal_petrol[[4]]  # preferred color "petrol4" OR "#077187"

# Plotting palette:
seecol(pal_petrol)
```

pal_pinky *uni.kn color palette pinky*

Description

pal_pinky provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Pinky or pink).

Usage

```
pal_pinky
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_peach and pal_bordeaux for alternative redish uni.kn color palettes; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_pinky
dim(pal_pinky)  # 1 5
pal_pinky[4]    # preferred (named) color "pinky4"
pal_pinky[[4]]  # preferred color "pinky4" OR "#E0607E"

# Plotting palette:
seecol(pal_pinky)
```

pal_seeblau *uni.kn color palette seeblau*

Description

pal_seeblau provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Seeblau).

Usage

```
pal_seeblau
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_karpfenblau for an alternative blue uni.kn color palette; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_seeblau
dim(pal_seeblau)  # 1 5

# Preferred color:
pal_seeblau[3]    # preferred (named) color "seeblau3" (as df)
pal_seeblau[[3]]  # preferred color value "#59C7EB"

# Access by position:
pal_seeblau[3]    # named color "seeblau3" (as df)
pal_seeblau[[3]]  # color value "#59C7EB"

# Access by name:
pal_unikn["seeblau3"]    # color "seeblau3" (as df)
pal_unikn[["seeblau3"]]  # color value "#59C7EB"

# Plotting palette:
seecol(pal_seeblau)
```

pal_seegruen *uni.kn color palette seegruen*

Description

pal_seegruen provides an additional uni.kn color palette as a data frame containing 5 colors (shades of Seegruen).

Usage

```
pal_seegruen
```

Format

An object of class data.frame with 1 rows and 5 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_petrol for an alternative green uni.kn color palette; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_seegruen
dim(pal_seegruen)  # 1 5
pal_seegruen[4]    # preferred (named) color "seegruen4"
pal_seegruen[[4]]  # preferred color "seegruen4" OR "#0A9086"

# Plotting palette:
seecol(pal_seegruen)
```

pal_signal *uni.kn color palette signal (Ampel colors)*

Description

pal_signal provides an additional uni.kn color palette as a data frame containing 3 colors (Ampel or traffic signal colors).

Usage

```
pal_signal
```

Format

An object of class data.frame with 1 rows and 3 columns.

Details

The colors are arranged as in a traffic light ("Ampel"):

1. top: red or "bad"
2. mid: yellow or "alert"
3. bot: green or "good"

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_signal
dim(pal_signal)  # 1 3
pal_signal[2]    # (named) color "signal2"
pal_signal[[2]]  # color "signal2" OR "#EFDC60"

# Plotting palette:
seecol(pal_signal)
```

pal_unikn *uni.kn default color palette (11 colors)*

Description

pal_unikn combines the 5 shades of blue colors from color palette pal_seeblau with the 6 non-blue colors of pal_unikn_web to a divergent palette of 11 colors.

Usage

```
pal_unikn
```

Format

An object of class data.frame with 1 rows and 11 columns.

Details

Adding seeblau5 (i.e., pal_seeblau[1]) to the default color palette pal_unikn also puts white at the central (middle) position of a color palette with 11 values:

pal_unikn[[6]] is white or "#FFFFFF".

A divergent palette is useful for creating color gradients.

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the default uni.kn color palette; pal_seeblau for the uni.kn seeblau color palette; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web

Examples

```
pal_unikn
dim(pal_unikn)  # 1 11

# Access by position:
pal_unikn[1]    # new color "seeblau5" (as df)
pal_unikn[[1]]  # new color value "#008ECE"

# Access by name:
pal_unikn["seeblau5"]   # new color "seeblau5" (as df)
pal_unikn[["seeblau5"]] # new color value "#008ECE"

# Viewing/using color palette:
```

```
seecol(pal_unikn)
demopal(pal_unikn, type = "curve", main = "Default colors of Konstanz University")

# Note:
pal_unikn[6] # "white" or "#FFFFFF" as central of 11 colors
```

`pal_unikn_dark` *uni.kn color palette of dark colors (10 colors)*

Description

`pal_unikn_dark` provides an additional uni.kn color palette that collects 2 dark colors of 5 color palettes as a data frame containing 10 colors (in 5 pairs).

Usage

```
pal_unikn_dark
```

Format

An object of class `data.frame` with 1 rows and 10 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

`pal_unikn_light` for a lighter uni.kn color palette; `pal_unikn_pair` for a pairwise uni.kn color palette; `pal_unikn` for the default uni.kn color palette; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes.

Other color palettes: `pal_bordeaux`, `pal_grau`, `pal_karpfenblau`, `pal_peach`, `pal_petrol`, `pal_pinky`, `pal_seeblau`, `pal_seegruen`, `pal_signal`, `pal_unikn_light`, `pal_unikn_pair`, `pal_unikn_ppt`, `pal_unikn_pref`, `pal_unikn_web`, `pal_unikn`

Examples

```
pal_unikn_dark
dim(pal_unikn_dark)  # 1 8
pal_unikn_dark[1]    # color "karpfenblau5" by position
pal_unikn_dark[[1]]  # color value by position: #324376"
pal_unikn_dark["karpfenblau5"]  # color value by name

# Viewing/using color palette:
seecol(pal_unikn_dark)
demopal(pal_unikn_dark, type = "points", main = "Dark colors of Konstanz University")
```

pal_unikn_light *uni.kn color palette of light colors (10 colors)*

Description

pal_unikn_light provides an additional uni.kn color palette that collects 2 light colors of 5 color palettes as a data frame containing 10 colors (in 5 pairs).

Usage

```
pal_unikn_light
```

Format

An object of class data.frame with 1 rows and 10 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn_dark for a darker uni.kn color palette; pal_unikn_pair for a pairwise uni.kn color palette; pal_unikn for the default uni.kn color palette; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_unikn_light
dim(pal_unikn_light)  # 1 10

# Access by position:
pal_unikn_light[1]    # color "seeblau3" (as df)
pal_unikn_light[[1]]  # color value "#59C7EB"

# Access by name:
pal_unikn_light["seeblau3"]   # color "seeblau3" (as df)
pal_unikn_light[["seeblau3"]] # color value "#59C7EB"

# Viewing/using color palette:
seecol(pal_unikn_light)
demopal(pal_unikn_light, type = "bar", main = "Light colors of Konstanz University")
```

pal_unikn_pair *uni.kn color palette of pairwise colors (16 colors)*

Description

pal_unikn_pair provides an additional uni.kn color palette that collects 16 paired colors of 8 color palettes as a data frame containing 16 colors (in 8 pairs).

Usage

```
pal_unikn_pair
```

Format

An object of class data.frame with 1 rows and 16 columns.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn_light for a lighter uni.kn color palette; pal_unikn_dark for a darker uni.kn color palette; pal_unikn for the default uni.kn color palette; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_ppt, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_unikn_pair
dim(pal_unikn_pair)  # 1 16
pal_unikn_pair[1]    # color "karpfenblau4" by position
pal_unikn_pair[[1]]  # color value by position: #3E5496"
pal_unikn_pair["karpfenblau4"]  # color value by name

# Viewing/using color palette:
seecol(pal_unikn_pair)
demopal(pal_unikn_pair, type = "polygon", main = "A pair-wise color palette")
```

pal_unikn_ppt *uni.kn secondary color palette (ppt version)*

Description

pal_unikn_ppt provides an alternative uni.kn color palette as a data frame containing 10 colors.

Usage

```
pal_unikn_ppt
```

Format

An object of class data.frame with 1 rows and 10 columns.

Details

This is a secondary (ppt) variant with more muted colors.

See pal_unikn for the primary/default (web/sRGB) scale and https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_pref, pal_unikn_web, pal_unikn

Examples

```
pal_unikn_ppt
dim(pal_unikn_ppt)  # 1 10

# Access by position:
pal_unikn_ppt[2]    # 2nd named color "seeblau3" (as df)
pal_unikn_ppt[[2]]  # 2nd color value "#59B6DC"

# Access by name:
pal_unikn_ppt["seeblau3"]    # color "seeblau3" (as df)
pal_unikn_ppt[["seeblau3"]]  # color value "#59B6DC"

# Plotting palette:
seecol(pal_unikn_ppt)
```

pal_unikn_pref *uni.kn color palette of preferred colors (9 colors)*

Description

pal_unikn_pref provides an additional uni.kn color palette that collects the preferred color of each palette as a data frame containing 9 (or 8 + 1) colors.

Usage

```
pal_unikn_pref
```

Format

An object of class data.frame with 1 rows and 9 columns.

Details

The colors are arranged in a sequence that provides high contrasts between adjacent colors.

Note that the (alert) color Signal is not a preferred color according to the official color definition.

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the default uni.kn color palette; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_web, pal_unikn

Examples

```
pal_unikn_pref
dim(pal_unikn_pref)  # 1 9

# Access by position:
pal_unikn_pref[1]    # color Seeblau (as df)
pal_unikn_pref[[1]]  # color value "#59C7EB"

# Access by name:
pal_unikn_pref["Seeblau"]   # color "seeblau3" (as df)
pal_unikn_pref[["Seeblau"]] # color value "#59C7EB"

# Viewing/using color palette:
seecol(pal_unikn_pref)
demopal(pal_unikn_pref, type = "mosaic", main = "Preferred colors of Konstanz University")
```

pal_unikn_web *uni.kn default color palette (web version)*

Description

pal_unikn_web provides the default uni.kn color palette as a data frame containing 10 colors.

Usage

```
pal_unikn_web
```

Format

An object of class data.frame with 1 rows and 10 columns.

Details

This is the primary (web/sRGB) scale.

Note that pal_unikn provides a divergent color palette (of 11 colors).

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_ppt for an alternative (ppt) version; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other color palettes: pal_bordeaux, pal_grau, pal_karpfenblau, pal_peach, pal_petrol, pal_pinky, pal_seeblau, pal_seegruen, pal_signal, pal_unikn_dark, pal_unikn_light, pal_unikn_pair, pal_unikn_ppt, pal_unikn_pref, pal_unikn

Examples

```
pal_unikn_web
dim(pal_unikn_web)  # 1 10

# Access by position:
pal_unikn_web[2]    # 2nd named color "seeblau3" (as df)
pal_unikn_web[[2]]  # 2nd color value "#59C7EB"

# Access by name:
pal_unikn_web["seeblau3"]    # color "seeblau3" (as df)
pal_unikn_web[["seeblau3"]]  # color value "#59C7EB"

# Plotting palette:
seecol(pal_unikn_web)
```

Peach *uni.kn color Peach*

Description

Peach provides the preferred color of pal_peach (as an atomic HEX character value) and is defined as pal_peach[[4]].

Usage

```
Peach
```

Format

An object of class character of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_peach for the corresponding color palette; pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Bordeaux, Grau, Karpfenblau, Petrol, Pinky, Seeblau, Seegruen, Signal

Examples

```
Peach  # HEX character "#FEA090" (as value)
all.equal(Peach, pal_peach[[4]])  # TRUE (same HEX values)

seecol(Peach)  # view color and details
```

Petrol *uni.kn color Petrol*

Description

Petrol provides the preferred color of pal_petrol (as an atomic HEX character value) and is defined as pal_petrol[[4]].

Usage

```
Petrol
```

Format

An object of class `character` of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

`pal_petrol` for the corresponding color palette; `pal_unikn` for the unikn default color palette with all 5 colors of `pal_seeblau`; `pal_unikn_pref` for a uni.kn color palette with all preferred colors; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes.

Other preferred colors: `Bordeaux`, `Grau`, `Karpfenblau`, `Peach`, `Pinky`, `Seeblau`, `Seegruen`, `Signal`

Examples

```
Petrol  # HEX character "#077187" (as value)
all.equal(Petrol, pal_petrol[[4]])  # TRUE (same HEX values)

seecol(Petrol)  # view color and details
```

`Pinky` *uni.kn color Pinky*

Description

`Pinky` provides the preferred color of `pal_pinky` (as an atomic HEX character value) and is defined as `pal_pinky[[4]]`.

Usage

```
Pinky
```

Format

An object of class `character` of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_pinky for the corresponding color palette; pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Bordeaux, Grau, Karpfenblau, Peach, Petrol, Seeblau, Seegruen, Signal

Examples

```
Pinky  # HEX character "#E0607E" (as value)
all.equal(Pinky, pal_pinky[[4]])  # TRUE (same HEX values)

seecol(Pinky)  # view color and details
```

---

post *Post text (in an xbox)*

Description

post plots 1 or more text strings (provided as a character vector labels) to an (existing or new) xbox.

Usage

```
post(
  labels,
  x = 0.03,
  y = 0.55,
  x_layout = NA,
  y_layout = "even",
  col = "white",
  col_bg = Seeblau,
  cex = 1,
  font = 1,
  new_plot = "none"
)
```

Arguments

labels	A character vector specifying the text labels to be plotted.
x	A numeric vector of x-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: x = .03.
y	A numeric vector of y-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: y = .55.

x_layout	An optional numeric vector or character string to control the horizontal positions of labels. Numeric values are interpreted as increments to values of x and recycled (to enable stepwise or alternating patterns). 3 character string options are: "center" (i.e., center wrt. first label or plot center), "left" (i.e., left wrt. first label or plot center), "right" (i.e., right wrt. first label or plot center). Default: x_layout = NA (i.e., using values of x).
y_layout	A numeric value or character string to control the vertical positions of labels. Numeric values are interpreted as increments to values of y[1] and recycled (to enable stepwise or alternating patterns). 2 character string options are: "even" (i.e., even distribution of labels across available y-space) and "flush" (i.e., no space between adjacent labels, i.e., y_layout = 0). Default: y_layout = "even".
col	The color(s) of the text label(s). Default: col_lbl = "white".
col_bg	The background color(s) of the xbox. Default: col_bg = Seeblau.
cex	Numeric character expansion factor(s), multiplied by par("cex") to yield the character size(s). Default: cex = 1.0.
font	The font type(s) to be used. Default: font = 1 (i.e., plain text).
new_plot	Should a new plot be generated? Set to "xbox" to plot to a basic xbox (with square dimensions, i.e., dim = c(1, 1)). Default: new_plot = "none" (i.e., assumes a pre-existing xbox).

Details

The positions of the text elements in labels can be specified by providing their coordinates (as x and y arguments) or by providing an initial position and an y_layout (see below).

Text formatting parameters (like col, col_bg, cex, font) are recycled to match length(labels).

post uses the base graphics system graphics::.

See Also

xbox to create a new xbox (without text).

Other text functions: mark(), uline(), url_unikn()

Examples

```
post(labels = "Post this line with default settings.", new_plot = "xbox")

# Create a new xbox:
post(labels = "This is a test.", new_plot = "xbox",
     cex = 1.2, font = 2, col_bg = pal_seeblau[[5]])

# Add text to an existing xbox:
post(labels = c("More text follows here,",
              "yet another line here,",
              "and even more here."),
              y = .4, y_layout = .04,
              new_plot = "none")
```

```
# Using x_layout and y_layout:
post(labels = c("Ene,", "mene, miste,", "es rappelt", "in der Kiste."),
     cex = 1.4, font = 2, col = "white", col_bg = Pinky,
     x = .1, y = .5, x_layout = "left", y_layout = .05, new_plot = "xbox")

post(labels = c("Hello world!", "Does this work?", "That's good!", "Please carry on..."),
     cex = 1.4, font = 2, col = "white", col_bg = Karpfenblau,
     x = .01, y = .6, x_layout = .10, y_layout = .05, new_plot = "xbox")
```

`rpi_pal_1` *Primary colors of RPI*

Description

`rpi_pal_1` provides the primary colors of the Rensselaer Polytechnic Institute (RPI), Troy, NY.

Usage

```
rpi_pal_1
```

Format

An object of class `character` of length 5.

Details

These colors represent the core colors and should provide the foundation for the palette used. Their usage should dominate the use of the secondary colors of `rpi_pal_2` and their tint variants of `rpi_pal_3`.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-01.

Source

Color definitions are based on `https://scer.rpi.edu/brand-in-action/colors`.

See Also

rpi_pal_2 for secondary colors of RPI; rpi_pal_3 for tint colors of RPI; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
rpi_pal_1
seecol(rpi_pal_1, main = "The primary colors of RPI")  # view color palette
demopal(rpi_pal_1, type = 3, main = "Primary colors of RPI")
```

---

rpi_pal_2 *Secondary colors of RPI*

Description

rpi_pal_2 provides the secondary use colors of the Rensselaer Polytechnic Institute (RPI), Troy, NY.

Usage

```
rpi_pal_2
```

Format

An object of class character of length 3.

Details

The colors of rpi_pal_2 should be used in combination with the primary colors of rpi_pal_1 to add color accents to digital and print materials.

rpi_pal_3 provides tint variants of these colors.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-01.

Source

Color definitions are based on https://scer.rpi.edu/brand-in-action/colors.

See Also

rpi_pal_1 for primary colors of RPI; rpi_pal_3 for tint colors of RPI; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
rpi_pal_2
seecol(rpi_pal_2, main = "The secondary colors of RPI")  # view color palette
demopal(rpi_pal_2, type = 5, main = "Secondary colors of RPI")
```

---

rpi_pal_3 *Tint colors of RPI*

Description

rpi_pal_3 provides the tint colors of the Rensselaer Polytechnic Institute (RPI), Troy, NY.

Usage

```
rpi_pal_3
```

Format

An object of class character of length 12.

Details

As variants of the secondary use colors of rpi_pal_2, the tint colors of rpi_pal_3 should be used in combination with the primary colors of rpi_pal_1 to add color accents to digital and print materials.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-01.

Source

Color definitions are based on https://scer.rpi.edu/brand-in-action/colors.

See Also

rpi_pal_1 for primary colors of RPI; rpi_pal_2 for secondary colors of RPI; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
rpi_pal_3
seecol(rpi_pal_3, main = "Tint colors of RPI")  # view color palette
demopal(rpi_pal_3, type = 4, seed = 2, main = "Tint colors of RPI")
```

---

rptu_pal *Color palette of the RPTU Kaiserslautern-Landau*

Description

rptu_pal provides the 12 colors (arranged in 6 pairs) of the RPTU Kaiserslautern-Landau, Germany.

Usage

```
rptu_pal
```

Format

An object of class character of length 12.

Details

The acronym "RPTU" denotes "Rheinland-Pfälzische Technische Universität", which is co-located in Kaiserslautern and Landau, Germany (since 2023).

The two colors of a pair may be combined with each other. When using only one color pair, shades of 10 See examples and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-01.

Source

Color definitions are based on https://www.startklar2023.de/brand-portal-rptu.

See Also

seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
rptu_pal
seecol(rptu_pal, main = "The colors of RPTU")  # view color palette
demopal(rptu_pal, type = 1, main = "Using the colors of RPTU")

# Gradients:
rptu_10 <- usecol(c(rptu_pal[9], "white"), n = 11)[1:10]
seecol(rptu_10, main = "10 shades of a RPTU color")

rptu_21 <- usecol(c(rptu_pal[1], "white", rptu_pal[2]), n = 21)
seecol(rptu_21, main = "A gradient between a RPTU color pair")
```

Seeblau *uni.kn color Seeblau*

Description

Seeblau provides the preferred color of pal_seeblau (as an atomic HEX character value) and is defined as pal_seeblau[[3]].

Usage

```
Seeblau
```

Format

An object of class character of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_seeblau for the corresponding color palette; pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Bordeaux, Grau, Karpfenblau, Peach, Petrol, Pinky, Seegruen, Signal

Examples

```
Seeblau  # HEX character "#59C7EB" (as value)
all.equal(Seeblau, pal_seeblau[[3]])  # TRUE (same HEX values)

seecol(Seeblau)  # view color and details
```

seecol *Plot color palettes (to see their colors)*

Description

seecol provides an interface to plotting (or "seeing") the colors of a palette or comparing multiple color palettes.

Usage

```
seecol(
  pal = "unikn_all",
  n = "all",
  alpha = NA,
  hex = NULL,
  rgb = NULL,
  col_bg = NULL,
  col_brd = NULL,
  lwd_brd = NULL,
  grid = TRUE,
  main = NA,
  sub = NULL,
  title = NULL,
  mar_note = NA,
  pal_names = NA,
  ...
)
```

Arguments

pal	A single color palette (as a vector of colors), multiple color palettes (as a list), or a recognized keyword (as a character string). Default: `pal = "unikn_all"` (i.e., plot all color palettes provided by the **unikn** package). Recognized keywords are: 1. `"all"`: All color palettes of the **unikn** package. 2. `"all_unikn"` or `"unikn_all"`: All uni.kn color palettes (of the University of Konstanz). 3. `"unikn_basic"`: All basic uni.kn palettes. 4. `"grad_all"`: All uni.kn palettes with color gradients. 5. `"pair_all"`: All uni.kn palettes with pairwise colors. 6. `"pref_all"`: All preferred uni.kn colors and their gradients. 7. `"add"`: Additional/contributed color palettes of the **unikn** package. `seecol` does also recognize keywords (e.g., `"all_unikn"`) or keywords without `"unikn"` (e.g., `"basic"`).
n	Number of colors to show or use. If `n` is lower or higher than the length of the current color palette `pal`, the color palette is reduced or extrapolated (using `grDevices::colorRampPalette`). Default: `n = "all"` (i.e., show all colors in palette).
alpha	A factor modifying the opacity alpha (as `alpha.f` in `adjustcolor`) to a value in `[0, 1]`. Default: `alpha = NA` (i.e., no modification of opacity).
hex	Should HEX color values be shown? Default: `hex = NULL` (i.e., show HEX color values when there is sufficient space to print them).
rgb	Should RGB color values be shown? Default: `rgb = NULL` (i.e., show RGB color values when there is sufficient space to print them).

col_bg	Color of plot background. Default: col_bg = NULL.
col_brd	Color of shape borders (if shown). Default: col_brd = NULL.
lwd_brd	Line width of shape borders (if shown). Default: lwd_brd = NULL.
grid	Show grid in the color plot? Default: grid = TRUE.
main	Main plot title (as a character string). Default: main = NA creates a default title.
sub	Optional subtitle (as a character string). Default: sub = NULL (i.e., no subtitle).
title	Deprecated plot title. Use main instead.
mar_note	Optional margin note (on bottom right). Default: mar_note = NA (i.e., no margin note).
pal_names	Names of color palettes or colors (as a character vector). Default: pal_names = NA (for default names).
...	Other graphical parameters (passed to plot).

Details

seecol has two main modes, based on the contents of its pal argument:

1. if pal is set to a *specific* color palette (or a vector of multiple colors or color palettes):
   Plot the current color palette and optional details on its colors.
2. if pal = "unikn_all" or a list of *multiple* color palettes:
   Plot visual vectors of all current color palettes for comparing them.

Specifying distinct = TRUE removes visual duplicate colors (based on HEX values, ignoring transparency), but only when showing an individual color palette pal.

Various title options (i.e., main, sub, and mar_note) and a pal_names argument add control over plotted text labels. However, the length of a character vector provided to pal_names must correspond to the number of (custom) color palettes or colors.

See Also

usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors; shades_of to defining shades of a given color; ac for adjusting color transparency; pal_unikn for the default uni.kn color palette.

Other color functions: ac(), demopal(), grepal(), newpal(), shades_of(), simcol(), usecol()

Examples

```
# See multiple color palettes:
seecol()  # default: seecol(pal = "all")

# See details of one color palette:
seecol(pal_unikn)  # see a specific color palette

# Combining colors or color palettes:
seecol(c(rev(pal_seeblau), pal_seegruen))        # combine color palettes
seecol(c(rev(pal_seeblau), "white", pal_pinky))  # combine color palettes and color names
```

```
seecol(c("black", "firebrick", "gold"))          # combine color names

# Using n to reduce or extend color palettes:
seecol(n =  3)  # viewing reduced ranges of all palettes
seecol(n = 12)  # viewing extended ranges of all palettes

seecol(pal_unikn, n = 5,
       main = "Reduced version of pal_unikn (n = 5)")  # reducing pal_unikn
seecol(pal_seeblau, n = 8,
       main = "Extended version of pal_seeblau (n = 8)")  # extending pal_seeblau

# Combining and extending color palettes:
seecol(c(rev(pal_seeblau), "white", pal_bordeaux), n = 17,
       main = "Diverging custom color palette (with 17 colors)")

# Defining custom color palettes:
pal_mpg <- c("#007367", "white", "#D0D3D4")  # mixing hex values and color names
names(pal_mpg) <- c("mpg green", "mpg white", "mpg grey")  # color names

pal_bdg <- usecol(c(Bordeaux, "gold"), n = 10)  # using usecol

# Viewing extended color palette:
seecol(pal_mpg, n = 9, main = "Custom color palette of the Max Planck Society")

# Comparing (and labeling) custom color palettes:
seecol(list(pal_mpg, pal_bdg, pal_unikn), n = 7,
       pal_names = c("Max Planck", "Bordeaux-Gold", "Uni Konstanz"),
       main = "Comparing and labeling custom color palettes")

## Viewing color palettes from other packages:
# library(RColorBrewer)
# seecol(brewer.pal(name = "RdBu", n = 11))  # viewing "RdBu" palette from RColorBrewer

## Extending color palettes:
# seecol(brewer.pal(name = "RdBu", n = 11), n = 15)  # extending palette to 15 colors
```

`Seegruen` *uni.kn color Seegruen*

Description

Seegruen provides the preferred color of `pal_seegruen` (as an atomic HEX character value) and is defined as `pal_seegruen[[4]]`.

Usage

```
Seegruen
```

Format

An object of class `character` of length 1.

Details

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

`pal_seegruen` for the corresponding color palette; `pal_unikn` for the unikn default color palette with all 5 colors of `pal_seeblau`; `pal_unikn_pref` for a uni.kn color palette with all preferred colors; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes.

Other preferred colors: `Bordeaux`, `Grau`, `Karpfenblau`, `Peach`, `Petrol`, `Pinky`, `Seeblau`, `Signal`

Examples

```
Seegruen  # HEX character "#0A9086" (as value)
all.equal(Seegruen, pal_seegruen[[4]])  # TRUE (same HEX values)

seecol(Seegruen)  # view color and details
```

---

shades_of *Get n shades of a color*

Description

`shades_of` returns a vector of `n` colors that are shades of a color gradient ranging from an initial color `col_1` to a final color `col_n`.

Usage

```
shades_of(n = 5, col_1 = "black", col_n = "white", alpha = NA)
```

Arguments

`n`	Number of desired colors. Default: `n = 5`.
`col_1`	Initial color. Default: `col_1 = "black"`.
`col_n`	Final (n-th) color. Default: `col_n = "white"`.
`alpha`	A factor modifying the opacity alpha (as `alpha.f` in `adjustcolor`) to a value in `[0, 1]`. Default: `alpha = NA` (i.e., no modification of opacity).

Details

By default, the color gradient returned contains n = 5 colors that range from the initial color col_1 = "black" to the final color col_n = "white". Specifying different values for n and the initial or final colors yields different color ranges.

shades_of is mostly a wrapper for a special usecol command. However, usecol allows defining more complex color gradients (e.g., by specifying more than two colors).

See Also

seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors; ac for adjusting color transparency.

Other color functions: ac(), demopal(), grepal(), newpal(), seecol(), simcol(), usecol()

Examples

```
grey50 <- shades_of(50, col_1 = 'grey1')
seecol(grey50, main = "50 shades of grey1")

blue_black <- shades_of(5, Seeblau, col_n = "black")
seecol(blue_black, main = "5 shades from Seeblau to black")

wine_white <- shades_of(6, Bordeaux, alpha = 1/2)
seecol(wine_white, col_brd = "black", lwd_brd = .5,
       main = "Shades of semi-transparent Bordeaux")
```

Signal *uni.kn color Signal or alert*

Description

Signal provides the alert color of pal_signal (as an atomic HEX character value) and is defined as pal_signal[2].

Usage

```
Signal
```

Format

An object of class character of length 1.

Details

The official specification of pal_signal does not identify a preferred color. We provide Signal as a dedicated color as it is suited for creating color gradients (see usecol).

See https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/ for details.

See Also

pal_signal for the corresponding color palette; pal_unikn for the unikn default color palette with all 5 colors of pal_seeblau; pal_unikn_pref for a uni.kn color palette with all preferred colors; seecol for viewing and comparing color palettes; usecol for using color palettes.

Other preferred colors: Bordeaux, Grau, Karpfenblau, Peach, Petrol, Pinky, Seeblau, Seegruen

Examples

```
Signal  # HEX character "#EFDC60" (as value)
all.equal(Signal, pal_signal[[2]])  # TRUE (same HEX values)

seecol(Signal)  # view color and details
```

---

simcol *Find similar colors*

Description

simcol finds and shows colors from a palette of color candidates col_candidates that are similar to some target color col_target.

Usage

```
simcol(
  col_target,
  col_candidates = colors(),
  tol = c(25, 50, 75),
  distinct = TRUE,
  plot = TRUE
)
```

Arguments

col_target	A (required) target color.
col_candidates	A palette of color candidates to be considered. Default: col_candidates = colors().
tol	Numeric tolerance value(s) (either 1 or 3 numeric values, in the RGB range from 0 to 255). Values are considered in the order of the RGB value rank in col_target. Default: tol = c(25, 50, 75).
distinct	Boolean: Return only visually distinct colors? Default: distinct = TRUE (i.e., remove visual duplicates).
plot	Boolean: Plot the output (using seecol)? Default: plot = TRUE.

Details

simcol returns a vector of the (named) colors or color values in col_candidates (set to colors() of **grDevices** per default) that are similar to the specified target color col_target.

If plot = TRUE, simcol also visualizes the detected colors (by passing its result to seecol, as a side-effect).

Color similarity is defined in terms of the distance between colors' RGB values, which must be within the numeric tolerance threshold(s) specified by tol (with 0 <= tol <= 255). Higher tol values correspond to more permissive similarity judgments.

If tol is a scalar, the values of all three RGB dimensions of col_candidates must be within the corresponding values of col_target to be judged as 'similar'. If tol contains three values, the three RGB dimension are compared in order of the dimensions' rank in col_target (i.e., the primary dimension must be within tol[1], etc.). Thus, providing three tol values allows for more fine-grained similarity matching.

Value

A named vector of colors or color values.

See Also

seecol for plotting/seeing color palettes; usecol for using color palettes; newpal for defining new color palettes; grepal for finding named colors; shades_of to defining shades of a given color; ac for adjusting color transparency.

Other color functions: ac(), demopal(), grepal(), newpal(), seecol(), shades_of(), usecol()

Examples

```
# Basic uses:
simcol(col_target = "red")
simcol("tan", tol = 15)
simcol(Seeblau, tol = c(20, 30, 40))
simcol("blue", col_candidates = pal_unikn_pref, tol = 120)

# Fine-tuning the range of color matching:
simcol(Seeblau, tol = 30)  # = simcol(Seeblau, tol = c(30, 30, 30))
simcol(Seeblau, tol = c(20, 20, 80))

# Increasing tolerance widens range:
simcol("grey", c("white", "grey", "black"), tol = 255, distinct = FALSE, plot = FALSE)
```

---

slide *Plot a slide (or frame)*

Description

slide plots an empty slide (or frame) as a colored rectangle.

Usage

```
slide(col = NA, dim = c(4/3, 1), border = grey(0.33, 1), lwd = 1.5)
```

Arguments

col	The color to fill the slide with (i.e., its background color). Default: col = NA (i.e., system default for transparency).
dim	The x- and y-dimensions of the slide. Default: dim = c(4/3, 1) (i.e., unit height, 4/3 wider than high).
border	The color of the slide's border. Setting border = NA hides border. Default: border = grey(.33, 1).
lwd	The line width of the slide's border. Setting lwd = 0 or lwd = NA removes border. Default: lwd = 1.5.

See Also

heading, line, or mark to add text to a slide; xbox to plot a box.

Other plot functions: theme_grau(), theme_unikn(), xbox()

Examples

```
slide()  # default slide (or frame)
slide(lwd = NA)  # borderless slide

# Dimensions:
slide(dim = c(18, 9))   # larger and 2:1 dimensions
slide(dim = c(1/3, 1))  # smaller and 1:3 dimensions

# Formatting:
slide(col = pal_seeblau[[1]], border = pal_seeblau[[5]], lwd = 2)
```

---

theme_grau *Alternative theme (for ggplot2)*

Description

theme_grau provides an alternative **unikn** theme to use in **ggplot2** commands.

Usage

```
theme_grau(
  col_title = grey(0, 1),
  base_size = 11,
  base_family = "",
  base_line_size = base_size/22,
  base_rect_size = base_size/22
)
```

Arguments

col_title	Color of title (text) elements (optional, numeric). Default: col_title = grey(0, 1) (i.e., "black"). Consider using col_title = unikn::pal_seeblau[[4]].
base_size	Base font size (optional, numeric). Default: base_size = 11.
base_family	Base font family (optional, character). Default: base_family = "". Options include "mono", "sans" (default), and "serif".
base_line_size	Base line size (optional, numeric). Default: base_line_size = base_size/22.
base_rect_size	Base rectangle size (optional, numeric). Default: base_rect_size = base_size/22.

Details

theme_grau is no-nonsense, but fills panel backgrounds in "grau" (specifically, pal_seeggrau[[1]]).

This theme works well for dark colors and bright color accents, but is of limited use with transparent colors.

See Also

theme_unikn for default theme.

Other plot functions: slide(), theme_unikn(), xbox()

Examples

```
# Plotting iris dataset (using ggplot2, theme_grau, and unikn colors):

library('ggplot2')  # theme_unikn requires ggplot2

ggplot(datasets::iris) +
 geom_jitter(aes(x = Sepal.Length, y = Sepal.Width, color = Species), size = 3, alpha = 2/3) +
  facet_wrap(~Species) +
  scale_color_manual(values = usecol(pal = c(Pinky, Seeblau, Seegruen))) +
  labs(tag = "B",
       title = "Iris sepals",
       caption = "Data from datasets::iris") +
  coord_fixed(ratio = 3/2) +
  theme_grau()
```

theme_unikn *Basic unikn theme (for ggplot2)*

Description

theme_unikn provides a basic **unikn** theme to use in **ggplot2** commands.

Usage

```
theme_unikn(
  col_title = pal_seeblau[[4]],
  base_size = 11,
  base_family = "",
  base_line_size = base_size/22,
  base_rect_size = base_size/22
)
```

Arguments

col_title	Color of title (text) elements (optional, numeric). Default: col_title = pal_seeblau[[4]]. Consider using col_title = "black" when data uses Seeblau colors.
base_size	Base font size (optional, numeric). Default: base_size = 11.
base_family	Base font family (optional, character). Default: base_family = "". Options include "mono", "sans" (default), and "serif".
base_line_size	Base line size (optional, numeric). Default: base_line_size = base_size/22.
base_rect_size	Base rectangle size (optional, numeric). Default: base_rect_size = base_size/22.

Details

The theme is lightweight and no-nonsense, but somewhat opinionated (e.g., in using mostly grey scales to allow emphasizing data points with color accents).

See Also

theme_grau for an alternative theme.

Other plot functions: slide(), theme_grau(), xbox()

Examples

```
# Plotting iris dataset (using ggplot2, theme_unikn, and unikn colors):

library('ggplot2')  # theme_unikn requires ggplot2

ggplot(datasets::iris) +
 geom_jitter(aes(x = Petal.Length, y = Petal.Width, color = Species), size = 3, alpha = 2/3) +
```

```
scale_color_manual(values = usecol(pal = c(Pinky, Seeblau, Seegruen))) +
labs(tag = "A", title = "Iris petals",
     caption = "Data from datasets::iris") +
theme_unikn()
```

---

uline *Plot underlined text elements*

Description

uline plots 1 or more text strings (provided as a character vector labels) to an (existing or new) plot and places a colored line underneath each label (to underline it).

Usage

```
uline(
  labels,
  x = 0,
  y = 0.55,
  x_layout = NA,
  y_layout = "even",
  col = "black",
  col_bg = Seeblau,
  cex = 1.5,
  font = 1,
  new_plot = "none"
)
```

Arguments

labels	A character vector specifying the text labels to be plotted.
x	A numeric vector of x-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: x = 0.
y	A numeric vector of y-coordinates at which the text labels in labels should be written. If the lengths of x and y differ, the shorter one is recycled. Default: y = .55.
x_layout	An optional numeric vector or character string to control the horizontal positions of labels. Numeric values are interpreted as increments to values of x and recycled (to enable stepwise or alternating patterns). 3 character string options are: "center" (i.e., center wrt. first label or plot center), "left" (i.e., left wrt. first label or plot center), "right" (i.e., right wrt. first label or plot center). Default: x_layout = NA (i.e., using values of x).

y_layout	A numeric value or character string to control the vertical positions of labels. Numeric values are interpreted as increments to values of y[1] and recycled (to enable stepwise or alternating patterns). 2 character string options are: "even" (i.e., even distribution of labels across available y-space) and "flush" (i.e., no space between adjacent labels, i.e., y_layout = 0). Default: y_layout = "even".
col	The color(s) of the text label(s). Default: col_lbl = "black".
col_bg	The color(s) of the line (under the text labels of labels). Default: col_bg = Seeblau.
cex	Numeric character expansion factor(s), multiplied by par("cex") to yield the character size(s). Default: cex = 1.5.
font	The font type(s) to be used. Default: font = 1 (i.e., plain text).
new_plot	Boolean: Should a new plot be generated? Set to "blank" or "slide" to create a new plot. Default: new_plot = "none" (i.e., add to an existing plot).

Details

The positions of the text elements in labels can be specified by providing their coordinates (as x and y arguments) or by providing an initial position and an y_layout (see below).

Text formatting parameters (like col, col_bg, cex, font) are recycled to match length(labels).

uline uses the base graphics system graphics::.

See Also

slide and xbox to create simple plots (without text).

Other text functions: mark(), post(), url_unikn()

Examples

```
uline(labels = "This is a test.", new_plot = "blank")  # create a new blank plot
uline(labels = "More testing here...", y = .33, col_bg = pal_pinky[[2]])  # add to plot

# 2 basic cases:
# (a) Underline text on an existing plot:
plot(x = 0, y = 0, type = "n", xlim = c(0, 1), ylim = c(0, 1), xlab = "", ylab = "")
uline(x = 0, y = .8, labels = "Underline text (on an existing plot)")  # add to plot

# (b) Underline text on a new plot:
uline(x = .02, y = .80, labels = "Underline text (on a new plot)",
     new_plot = "slide")  # create a new plot

# Example:
lbl_line <- c("This is neat, true, and terribly important.")
uline(labels = lbl_line, new_plot = "blank")  # create a new plot
uline(labels = "(which is why we underline it).", y = .40, cex = 1.2)  # add to plot

# Using x_layout and y_layout:
uline(labels = c("Ene,", "mene, miste,", "es rappelt", "in der Kiste."),
```

```
cex = 1.4, font = 2, col = Grau, col_bg = Pinky,
x = 1.2, y = .85, x_layout = "right", y_layout = "even", new_plot = "slide")
```

---

unikn.guide *Open the unikn package guides*

Description

Open the unikn package guides

Usage

```
unikn.guide()
```

---

uni_bonn_1 *Primary colors of the University of Bonn*

Description

uni_bonn_1 provides the three primary colors (i.e., one main and two decorative colors) of the University of Bonn, Germany.

Usage

```
uni_bonn_1
```

Format

An object of class character of length 3.

Details

The main color uni blau is defined as CMYK 100/70/0/0 and approximated by Pantone 286, RGB 0/78/159, HEX #004e9f, and RAL 5005.

The decorative color uni gelb is defined as CMYK 0/30/100/0 and approximated by Pantone 1235, RGB 252/186/0, HEX #fcba00, and RAL 1028.

The decorative color uni grau is defined as CMYK 0/0/15/55 and approximated by Pantone 415, RGB 144/144/133, HEX #909085, and RAL 7030.

Colors shades of 75 See examples and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-10.

Source

Color definitions are based on the CD manual.

See Also

uni_bonn_2 for gradient colors of the University of Bonn; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_bonn_1
seecol(uni_bonn_1, main = "Primary colors of the University of Bonn")  # view color palette

# Color gradient:
uni_bonn_blau_gelb <- usecol(c(uni_bonn_1[1], "white", uni_bonn_1[2]), n = 9)
# seecol(uni_bonn_blau_gelb, main = "Divergent color gradient of Uni Bonn")
demopal(uni_bonn_blau_gelb, type = "polygon", seed = 9, main = "Color gradient of Uni Bonn")
```

---

uni_bonn_2 *Gradient colors of the University of Bonn*

Description

uni_bonn_2 provides 4 shades (of 100 for each of the 3 primary colors of the University of Bonn, Germany.

Usage

```
uni_bonn_2
```

Format

An object of class character of length 12.

Details

See uni_bonn_1 for the definitions of the three primary colors and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-10.

Source

Color definitions are based on the CD manual.

See Also

uni_bonn_1 for primary colors of the University of Bonn; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_bonn_2
seecol(uni_bonn_2, main = "Gradient colors of the University of Bonn")  # view color palette
demopal(uni_bonn_2, type = 3, main = "Color shades of the University of Bonn")
```

---

uni_freiburg_0 *Basic colors of the University of Freiburg*

Description

uni_freiburg_0 provides the three basic colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_0
```

Format

An object of class character of length 3.

Details

The primary color Blau (here: uni_freiburg_0[2]) is alternatively defined as Pantone 7687C, RGB 52/74/154, HEX #344a9a, or CMYK 90/75/0/0.

See uni_freiburg_1 for a primary palette with a Blau color gradient and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-01.

Source

Color definitions are based on the new web style guide at https://uni-freiburg.de/ (at https://uni-freiburg.de/uni on 2023-01-01).

See Also

uni_freiburg_1 for a primary palette of the University of Freiburg; uni_freiburg_2 for the secondary colors of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_0
seecol(uni_freiburg_0, col_brd = "grey", lwd_brd = 1.5,
       main = "Basic colors of the University of Freiburg")  # view color palette
demopal(uni_freiburg_0, type = 5, main = "Basic colors of Freiburg University")
```

uni_freiburg_1 *Primary colors of the University of Freiburg*

Description

uni_freiburg_1 provides a primary color palette of the University of Freiburg, Germany.

Usage

```
uni_freiburg_1
```

Format

An object of class character of length 7.

Details

The primary color Blau (here: uni_freiburg_1[2]) is alternatively defined as Pantone 7687C, RGB 52/74/154, HEX #344a9a, or CMYK 90/75/0/0.

The gradient of Blau was created by mixing the primary color uni_freiburg_0[2] with "white", as in usecol(c(uni_freiburg_0[2], "white"), n = 6)[1:5].

See uni_freiburg_0 for the basic colors (without the Blau color gradient) and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-01.

Source

Color definitions are based on the new web style guide at https://uni-freiburg.de/ (at https://uni-freiburg.de/uni on 2023-01-01).

See Also

uni_freiburg_0 for the basic colors of the University of Freiburg; uni_freiburg_2 for the secondary colors of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey,

uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_1
seecol(uni_freiburg_1, main = "Primary color gradient of the University of Freiburg")
demopal(uni_freiburg_1, type = 1, main = "Primary color gradient of Freiburg University")
```

---

uni_freiburg_2 *Secondary colors of the University of Freiburg*

Description

uni_freiburg_2 provides the four secondary colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_2
```

Format

An object of class character of length 4.

Details

The primary color Blau (here: uni_freiburg_1[2]) is alternatively defined as Pantone 7687C, RGB 52/74/154, HEX #344a9a, or CMYK 90/75/0/0.

The gradient of Blau was created by mixing the primary color uni_freiburg_0[2] with "white", as in usecol(c(uni_freiburg_0[2], "white"), n = 6)[1:5].

See uni_freiburg_0 for the basic colors without the Blau color gradient and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-01.

Source

Color definitions are based on the new web style guide at https://uni-freiburg.de/ (at https://uni-freiburg.de/uni on 2023-01-01).

See Also

uni_freiburg_0 for the basic colors of the University of Freiburg; uni_freiburg_1 for a primary palette of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_2
seecol(uni_freiburg_2, main = "Secondary colors of the University of Freiburg")
demopal(uni_freiburg_2, type = 2, main = "Secondary colors of Freiburg University")

# Color gradients:
col_gradient <- usecol(c(uni_freiburg_2[1], "white"), n = 6)[1:5]  # mix with "white"
col_transparent <- ac(col = uni_freiburg_2[1], alpha = c(1, .80, .60, .40, .20))
```

---

uni_freiburg_blue *Blue colors of the University of Freiburg (2022)*

Description

uni_freiburg_blue provides the blue colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_blue
```

Format

An object of class character of length 3.

Details

Please note: See uni_freiburg_1 for the corresponding colors of the new corporate design (as of 2023).

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-20.

Source

Color definitions are based on the web style guide at https://uni-freiburg.de/ (at portal.uni-freiburg.de/cmsforum on 2022-10-20).

See Also

uni_freiburg_br for the default colors of the University of Freiburg; uni_freiburg_info for the info colors of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_blue
seecol(uni_freiburg_blue, main = "Blue colors of the University of Freiburg (2022)")
demopal(uni_freiburg_blue, type = 3, main = "Blue colors of Freiburg University (2022)")
```

---

uni_freiburg_br *Default colors of the University of Freiburg (2022)*

Description

uni_freiburg_br provides the two default colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_br
```

Format

An object of class character of length 2.

Details

The _br denotes "blue/red" or "Breisgau".

Please note: See uni_freiburg_0 and uni_freiburg_1 for the corresponding colors of the new corporate design (as of 2023).

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-20.

Source

Color definitions are based on the web style guide at https://uni-freiburg.de/ (at portal.uni-freiburg.de/cmsforum on 2022-10-20).

See Also

uni_freiburg_info for the info colors of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_br
seecol(uni_freiburg_br, main = "Colors of the University of Freiburg (2022)")
demopal(uni_freiburg_br, type = 2, main = "Colors of the Freiburg University (2022)")
```

---

uni_freiburg_grey *Grey colors of the University of Freiburg (2022)*

Description

uni_freiburg_grey provides the grey colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_grey
```

Format

An object of class `character` of length 8.

Details

Please note: See `uni_freiburg_0` and `uni_freiburg_1` for the corresponding colors of the new corporate design (as of 2023).

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-20.

Source

Color definitions are based on the web style guide at https://uni-freiburg.de/ (at `portal.uni-freiburg.de/cmsforum` on 2022-10-20).

See Also

`uni_freiburg_br` for the default colors of the University of Freiburg; `uni_freiburg_info` for the info colors of the University of Freiburg; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `newpal` for defining new color palettes; `grepal` for finding named colors.

Other contributed color palettes: `caltech_pal_1`, `caltech_pal_2`, `caltech_pal_3`, `eth_pal_1`, `eth_pal_2`, `eth_pal_3`, `fu_pal_0`, `fu_pal_1`, `fu_pal_2`, `fu_pal_3`, `hu_pal_1`, `hu_pal_2`, `lmu_pal_1`, `lmu_pal_2`, `lmu_pal_3`, `mpg_pal`, `rpi_pal_1`, `rpi_pal_2`, `rpi_pal_3`, `rptu_pal`, `uni_bonn_1`, `uni_bonn_2`, `uni_freiburg_0`, `uni_freiburg_1`, `uni_freiburg_2`, `uni_freiburg_blue`, `uni_freiburg_br`, `uni_freiburg_info`, `uni_goettingen_1`, `uni_goettingen_2`, `uni_goettingen_3`, `uni_hamburg_1`, `uni_hamburg_2`, `uni_jena_1`, `uni_jena_2`, `uni_kiel_1`, `uni_kiel_2`, `uni_koeln_1`, `uni_koeln_2`, `uni_konstanz_1`, `uni_konstanz_2`, `uni_mannheim_1`, `uni_mannheim_2`, `uni_princeton_0`, `uni_princeton_1`, `uni_princeton_2`, `uni_regensburg_1`, `uni_regensburg_2`, `uni_regensburg_3`, `uni_ulm_1`, `uni_ulm_2`

Examples

```
uni_freiburg_grey
seecol(uni_freiburg_grey, main = "Grey colors of the University of Freiburg (2022)")
demopal(uni_freiburg_grey, type = 1, main = "Grey colors of Freiburg University (2022)")
```

uni_freiburg_info *Info colors of the University of Freiburg (2022)*

Description

uni_freiburg_info provides the info colors of the University of Freiburg, Germany.

Usage

```
uni_freiburg_info
```

Format

An object of class character of length 12.

Details

Please note: See uni_freiburg_1 and uni_freiburg_2 for the corresponding colors of the new corporate design (as of 2023).

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-20.

Source

Color definitions are based on the web style guide at https://uni-freiburg.de/ (at portal.uni-freiburg.de/cmsforum on 2022-10-20).

See Also

uni_freiburg_br for the default colors of the University of Freiburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_freiburg_info
seecol(uni_freiburg_info, main = "Info colors of the University of Freiburg (2022)")
demopal(uni_freiburg_info, type = 3, main = "Info colors of Freiburg University (2022)")
```

`uni_goettingen_1` *Primary colors of the University of Göttingen*

Description

`uni_goettingen_1` provides the primary blue colors of the University of Göttingen, Germany.

Usage

```
uni_goettingen_1
```

Format

An object of class `character` of length 4.

Details

The primary dark blue color `uniblau` is defined as `Uni-Blau HKS 41`. The palette `uni_goettingen_1` adds some derived colors, while the palette `uni_goettingen_2` provides secondary colors.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-20.

Source

Color definitions are based on `https://www.uni-goettingen.de/de/589412.html`.

See Also

`uni_goettingen_2` and `uni_goettingen_3` for alternative colors of the University of Goettingen; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `newpal` for defining new color palettes; `grepal` for finding named colors.

Other contributed color palettes: `caltech_pal_1`, `caltech_pal_2`, `caltech_pal_3`, `eth_pal_1`, `eth_pal_2`, `eth_pal_3`, `fu_pal_0`, `fu_pal_1`, `fu_pal_2`, `fu_pal_3`, `hu_pal_1`, `hu_pal_2`, `lmu_pal_1`, `lmu_pal_2`, `lmu_pal_3`, `mpg_pal`, `rpi_pal_1`, `rpi_pal_2`, `rpi_pal_3`, `rptu_pal`, `uni_bonn_1`, `uni_bonn_2`, `uni_freiburg_0`, `uni_freiburg_1`, `uni_freiburg_2`, `uni_freiburg_blue`, `uni_freiburg_br`, `uni_freiburg_grey`, `uni_freiburg_info`, `uni_goettingen_2`, `uni_goettingen_3`, `uni_hamburg_1`,

uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_goettingen_1
seecol(uni_goettingen_1, main = "The primary colors of Uni Göttingen")  # view color palette
demopal(uni_goettingen_1, type = 1, main = "Primary colors of the University of Goettingen")
```

---

uni_goettingen_2 *Secondary colors of the University of Göttingen*

Description

uni_goettingen_2 provides the secondary colors of the University of Göttingen, Germany.

Usage

```
uni_goettingen_2
```

Format

An object of class character of length 8.

Details

These colors are to be combined with the blue primary colors provided by palette uni_goettingen_1.

uni_goettingen_2 corrects an error in the color definitions of https://www.uni-goettingen.de/de/589412.html, where "Chamois" and "Altweiss" had identical, but non-corresponding RGB and HEX values.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-20.

Source

Color definitions are based on https://www.uni-goettingen.de/de/589412.html.

See Also

uni_goettingen_1 and uni_goettingen_3 for alternative colors of the University of Goettingen; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_goettingen_2
seecol(uni_goettingen_2, main = "Secondary colors of the University of Göttingen")
demopal(uni_goettingen_2, type = 3, main = "Secondary colors of Uni Goettingen")
```

---

uni_goettingen_3 *Departmental colors of the University of Göttingen*

Description

uni_goettingen_3 provides the 13 departmental colors (German "Fakultäten") of the University of Göttingen, Germany.

Usage

```
uni_goettingen_3
```

Format

An object of class character of length 13.

Details

These colors are used in online and print materials of these departments.

uni_goettingen_3 corrects an error in the color definitions of https://www.uni-goettingen.de/de/589412.html, where the color definition for "Theologie" provided non-corresponding RGB and HEX values. We adopted RGB 68/37/61 and the corresponding HEX #44253d values.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-20.

Source

Color definitions are based on https://www.uni-goettingen.de/de/589412.html.

See Also

uni_goettingen_1 and uni_goettingen_2 for alternative colors of the University of Goettingen; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_goettingen_3
seecol(uni_goettingen_3, main = "Department colors at the University of Göttingen")
demopal(uni_goettingen_3, type = 3, main = "Department colors of the University of Goettingen")
```

---

uni_hamburg_1 *Primary colors of the University of Hamburg*

Description

uni_hamburg_1 provides the four primary colors of the University of Hamburg, Germany.

Usage

```
uni_hamburg_1
```

Format

An object of class character of length 4.

Details

The two main colors are "rot" (also defined as Pantone 485C or CMYK 0/100/100/0) and "blau" (also defined as CMYK 87/49/0/0). These colors should be weighted equally and in a subtle fashion (i.e., as color accents, not large areas or entire texts).

The auxiliary colors "black" and "steingrau" (also defined as Pantone 432U or CMYK 45/11/11/73) are used for text.

Colors shades may be used in diagrams or visualizations. See examples and the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-06.

Source

Color definitions are based on the CD manual.

See Also

uni_hamburg_2 for visualization colors of the University of Hamburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_hamburg_1
seecol(uni_hamburg_1, main = "Primary colors of the University of Hamburg")
demopal(uni_hamburg_1, type = 3, main = "Primary colors of the Uni Hamburg")

# Color gradients:
seecol(usecol(c(uni_hamburg_1[1], uni_hamburg_1[2]), n = 6), main = "HHU rot to blau")
seecol(usecol(c(uni_hamburg_1[1], "white", uni_hamburg_1[2]), n = 7), main = "Divergent HHU")
```

uni_hamburg_2 *Secondary colors of the University of Hamburg*

Description

uni_hamburg_2 provides three primary colors of the University of Hamburg, Germany, in combination with two pair-wise variants of them.

Usage

```
uni_hamburg_2
```

Format

An object of class character of length 6.

Details

uni_hamburg_2 is to be used in visualizations.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-06.

Source

Color definitions are based on the CD manual.

See Also

uni_hamburg_1 for primary colors of the University of Hamburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_hamburg_2
seecol(uni_hamburg_2, main = "Visualization colors of the University of Hamburg")
demopal(uni_hamburg_2, type = 1, main = "Secondary colors of the Uni Hamburg")
```

---

uni_jena_1 *Primary colors of the University of Jena*

Description

`uni_jena_1` provides the main `dunkelblau` color and the auxiliary `gold` color of the University of Jena, Germany.

Usage

```
uni_jena_1
```

Format

An object of class `character` of length 2.

Details

The main color `dunkelblau` is alternatively defined as `RGB 0/47/93`, `CMYK 100/70/10/50`, or `HKS 41 K`.

The auxiliary color `gold` is alternatively defined as `RGB 174/154/99`, `CMYK 20/25/60/25`, or `HKS 98 K`.

See the `ac` and `usecol` functions for creating color gradients.

The full name of the University of Jena is Friedrich-Schiller-Universität Jena.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-02.

Source

Color definitions are based on `https://www.uni-jena.de/corporate-design`.

See Also

uni_jena_2 for departmental colors of the University of Jena; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_jena_1
seecol(uni_jena_1, main = "Primary colors of the University of Jena")
demopal(uni_jena_1, type = 2, seed = 5, main = "Primary colors of Jena University")

# Gradient: Mixing the main colors with "white":
jena_mix <- usecol(c(uni_jena_1[1], "white", uni_jena_1[2]), n = 7)
seecol(jena_mix, main = "A gradient of the University of Jena")
```

---

uni_jena_2 *Departmental colors of the University of Jena*

Description

uni_jena_2 provides the 10 departmental colors of the (10 faculties at the) University of Jena, Germany.

Usage

```
uni_jena_2
```

Format

An object of class character of length 10.

Details

The full name of the University of Jena is Friedrich-Schiller-Universität Jena.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-02.

Source

Color definitions are based on https://www.uni-jena.de/corporate-design.

See Also

uni_jena_1 for primary colors of the University of Jena; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_jena_2
seecol(uni_jena_2, main = "Departmental colors of the University of Jena")
demopal(uni_jena_2, type = 5, main = "Faculty colors of Jena University")
```

---

uni_kiel_1 *Primary color of Kiel University*

Description

uni_kiel_1 provides the primary violett color of Kiel University, Germany.

Usage

```
uni_kiel_1
```

Format

An object of class character of length 3.

Details

The main color is the luminant `violett` of `uni_kiel_1[2]`, which alludes to the historic founding faculty of theology. It is alternatively defined as `RGB 155/10/125`, `Hex #9b0a7d`, `HKS 33`, or `CMYK 45/100/0/0`.

The palette `uni_kiel_1` enframes this color as its central element in `"black"` and `"white"` to easily enable mixing it with shades of `"grey"`. See examples and the `ac` and `usecol` functions for creating color gradients.

The full name of Kiel University is Christian-Albrechts-Universität (CAU) zu Kiel.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-02.

Source

Color definitions are based on `https://www.presse.uni-kiel.de/de/erscheinungsbild/farben`.

See Also

`uni_kiel_2` for departmental colors of Kiel University; `seecol` for viewing and comparing color palettes; `usecol` for using color palettes; `simcol` for finding similar colors; `newpal` for defining new color palettes; `grepal` for finding named colors.

Other contributed color palettes: `caltech_pal_1`, `caltech_pal_2`, `caltech_pal_3`, `eth_pal_1`, `eth_pal_2`, `eth_pal_3`, `fu_pal_0`, `fu_pal_1`, `fu_pal_2`, `fu_pal_3`, `hu_pal_1`, `hu_pal_2`, `lmu_pal_1`, `lmu_pal_2`, `lmu_pal_3`, `mpg_pal`, `rpi_pal_1`, `rpi_pal_2`, `rpi_pal_3`, `rptu_pal`, `uni_bonn_1`, `uni_bonn_2`, `uni_freiburg_0`, `uni_freiburg_1`, `uni_freiburg_2`, `uni_freiburg_blue`, `uni_freiburg_br`, `uni_freiburg_grey`, `uni_freiburg_info`, `uni_goettingen_1`, `uni_goettingen_2`, `uni_goettingen_3`, `uni_hamburg_1`, `uni_hamburg_2`, `uni_jena_1`, `uni_jena_2`, `uni_kiel_2`, `uni_koeln_1`, `uni_koeln_2`, `uni_konstanz_1`, `uni_konstanz_2`, `uni_mannheim_1`, `uni_mannheim_2`, `uni_princeton_0`, `uni_princeton_1`, `uni_princeton_2`, `uni_regensburg_1`, `uni_regensburg_2`, `uni_regensburg_3`, `uni_ulm_1`, `uni_ulm_2`

Examples

```
uni_kiel_1
seecol(uni_kiel_1, main = "The main color of Kiel University (CAU)")
demopal(uni_kiel_1, type = 3, main = "Primary colors of the University of Kiel")

# Gradient: Mixing the main color with shades of grey:
N = 9
kiel_mix <- usecol(uni_kiel_1, n = N)[c(-1, -N)]  # remove extremes
seecol(kiel_mix, main = "A color gradient of Kiel University (CAU)")
```

uni_kiel_2 *Departmental colors of Kiel University*

Description

uni_kiel_2 provides the 8 departmental colors (German "Fakultäten") of Kiel University, Germany.

Usage

```
uni_kiel_2
```

Format

An object of class character of length 8.

Details

These colors may be mixed with darker shades of "grey" (or "black"). See examples and the ac and usecol functions for creating color gradients.

The full name of Kiel University is Christian-Albrechts-Universität (CAU) zu Kiel.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2023-01-02.

Source

Color definitions are based on https://www.presse.uni-kiel.de/de/erscheinungsbild/farben.

See Also

uni_kiel_1 for primary colors of Kiel University; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_kiel_2
seecol(uni_kiel_2, main = "Departmental colors of Kiel University (CAU)")
demopal(uni_kiel_2, type = 3, main = "Department colors of the University of Kiel")

# Gradients: Mix with "black" for darker shades:
uni_kiel_med <- usecol(c(uni_kiel_2["Medizin"], "black"), n = 5)
seecol(uni_kiel_med, main = "5 shades of 'Medizin' of Uni Kiel")
```

---

uni_koeln_1 *Primary colors of the University of Koeln (Cologne)*

Description

`uni_koeln_1` provides the primary colors of the Universitaet zu Koeln, Germany.

Usage

```
uni_koeln_1
```

Format

An object of class `character` of length 7.

Details

The first 6 colors are variants of the main color `blaugrau` (defined as R122.G147.B171, see `uni_koeln_1[4]`).

The 7th color is the accent color `signal rot` (defined as Pantone Red 032 C or R175.G17.B29, see `uni_koeln_1[7]`). The accent color may also be used in lighter shades of 80

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-05.

Source

Color definitions are based on https://kommunikation-marketing.uni-koeln.de/marketing/corporate_design/index_ger.html.

See Also

uni_koeln_2 for departmental colors of the University of Koeln; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_koeln_1
seecol(uni_koeln_1, main = "Primary colors of Uni Koeln")
demopal(uni_koeln_1, type = 4,
        main = "Primary colors at the University of Cologne")
```

---

uni_koeln_2 *Departmental colors of the University of Koeln (Cologne)*

Description

uni_koeln_2 provides the departmental (faculty) colors of the Universitaet zu Koeln, Germany.

Usage

```
uni_koeln_2
```

Format

An object of class character of length 7.

Details

The named colors of uni_koeln_2 correspond to the following departments:

1. gruen: Wirtschafts-/Sozialwissenschaftliche Fakultaet
2. bordeaux: Rechtswissenschaftliche Fakultaet
3. rot: Medizinische Fakultaet
4. violett: Philosophische Fakultaet
5. blau: Mathematisch-Naturwissenschaftliche Fakultaet
6. orange: Humanwissenschaftlicheschaftliche Fakultaet
7. hellblau: Verwaltung

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-05.

Source

Color definitions are based on https://kommunikation-marketing.uni-koeln.de/marketing/corporate_design/index_ger.html.

See Also

uni_koeln_1 for primary colors of the University of Koeln; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_koeln_2
seecol(uni_koeln_2, main = "Departmental colors of Uni Koeln")
demopal(uni_koeln_2, type = 3,
        main = "Department colors at the University of Cologne")
```

---

uni_konstanz_1 *Default colors of the University of Konstanz*

Description

uni_konstanz_1 provides the default color palette of the University of Konstanz, Germany.

Usage

```
uni_konstanz_1
```

Format

An object of class character of length 11.

Details

The **unikn** package provides many additional color palettes for the University of Konstanz.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

R package **unikn**, retrieved from https://CRAN.R-project.org/package=unikn, doi doi:10.5281/zenodo.7096191.

Color definitions are based on https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/the-university-of-konstanzs-corporate-design/ https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/colours-for-complex-graphics/

See Also

uni_konstanz_2 for the preferred colors of the University of Konstanz; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_konstanz_1
seecol(uni_konstanz_1, main = "Default colors of the University of Konstanz")
demopal(uni_konstanz_1, type = 4, main = "Using Uni Konstanz colors", seed = 1)
```

uni_konstanz_2 *Preferred colors of the University of Konstanz*

Description

uni_konstanz_2 provides the palette of preferred colors of the University of Konstanz, Germany.

Usage

```
uni_konstanz_2
```

Format

An object of class character of length 9.

Details

The **unikn** package provides many additional color palettes for the University of Konstanz.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-10-20.

Source

R package **unikn**, retrieved from https://CRAN.R-project.org/package=unikn, doi doi:10.5281/zenodo.7096191.

Color definitions are based on https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/the-university-of-konstanzs-corporate-design/ https://www.uni-konstanz.de/en/university/news-and-media/create-online-and-print-media/corporate-design/colours-for-complex-graphics/

See Also

uni_konstanz_1 for the default colors of the University of Konstanz; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1,

uni_koeln_2, uni_konstanz_1, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_konstanz_2
seecol(uni_konstanz_2, main = "Preferred colors of the University of Konstanz")
demopal(uni_konstanz_2, type = 3, main = "Preferred colors of the Uni Konstanz")
```

---

uni_mannheim_1 *Main color gradient of the University of Mannheim*

Description

uni_mannheim_1 provides a color gradient of the primary blau color and six lighter shades of the University of Mannheim, Germany.

Usage

```
uni_mannheim_1
```

Format

An object of class character of length 7.

Details

The primary color UM blau is alternatively defined as RGB 0/48/86, HEX #003056, Pantone 654, CMYK 100/60/10/60, or RAL 5011.

The six lighter shades were created by mixing the primary UM blau with "white". See the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://www.uni-mannheim.de/cd/marke/farben/.

See Also

uni_mannheim_2 provides the primary and accent colors of the University of Mannheim; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_mannheim_1
seecol(uni_mannheim_1, main = "Main color gradient of the University of Mannheim")
demopal(uni_mannheim_1, type = 1,
        main = "Main color gradient of Mannheim University")
```

---

uni_mannheim_2 *Primary and departmental accent colors of the University of Mannheim*

Description

uni_mannheim_2 provides the primary color UM blau, the main accent color silber, and five departmental accent colors (graublau, gruen, orange, rot, and petrol) of the the University of Mannheim, Germany.

Usage

```
uni_mannheim_2
```

Format

An object of class character of length 7.

Details

uni_mannheim_2 contains the following colors:

1. UM blau: The primary color is alternatively defined as RGB 0/48/86, HEX #003056, Pantone 654, CMYK 100/60/10/60, or RAL 5011.
2. silber: The main accent color is alternatively defined as RGB 179/182/185, HEX #B3B6B9, Pantone 887, CMYK 35/25/25/0, or RAL 9006.

3. graublau: Accent color for 'Rechtswissenschaft und Volkswirtschaftslehre'
4. gruen: Accent color for 'Betriebswirtschaftslehre'
5. orange: Accent color for 'Sozialwissenschaften'
6. rot: Accent color for 'Philosophie'
7. petrol: Accent color for 'Wirtschaftsinformatik und Wirtschaftsmathematik'

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://www.uni-mannheim.de/cd/marke/farben/.

See Also

uni_mannheim_1 provides a primary color gradient for the University of Mannheim; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_mannheim_2
seecol(uni_mannheim_2, main = "Main and accent colors of the University of Mannheim")
demopal(uni_mannheim_2, type = 4, seed = 7,
        main = "Main and department accent colors of Mannheim University")
```

uni_princeton_0 *Basic colors of Princeton University*

Description

uni_princeton_0 provides the two basic colors of Princeton University, NJ, USA.

Usage

```
uni_princeton_0
```

Format

An object of class character of length 2.

Details

Note that Wikipedia: Shades of orange defines uni_princeton_2[1] as "Princeton orange".

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-28.

Source

Color definitions are based on https://communications.princeton.edu/guides-tools/logo-graphic-identity.

See Also

uni_princeton_1 for Princeton University colors (on white backgrounds); uni_princeton_2 for Princeton University colors (on black backgrounds); seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_princeton_0
seecol(uni_princeton_0, main = "Basic colors of Princeton University")
demopal(uni_princeton_0, type = 1, main = "Colors of Princeton University")
```

---

uni_princeton_1 *Colors of Princeton University (on white backgrounds)*

Description

uni_princeton_1 provides the two basic colors of Princeton University, NJ, USA, for use on white backgrounds.

Usage

```
uni_princeton_1
```

Format

An object of class character of length 3.

Details

Note that Wikipedia: Shades of orange defines uni_princeton_2[1] as "Princeton orange".

The color "white" was added to enable symmetrical color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-28.

Source

Color definitions are based on https://communications.princeton.edu/guides-tools/logo-graphic-identity.

See Also

uni_princeton_0 for basic Princeton University colors; uni_princeton_2 for Princeton University colors (on black backgrounds); seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1,

lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_princeton_1
seecol(uni_princeton_1, col_brd = "grey", lwd_brd = 1.5,
       main = "Colors of Princeton (on white backgrounds)")
demopal(uni_princeton_1, type = 4, seed = 1, main = "Princeton University colors")
```

---

uni_princeton_2 *Colors of Princeton University (on black backgrounds)*

Description

uni_princeton_2 provides the two basic colors of Princeton University, NJ, USA, for use on black backgrounds.

Usage

```
uni_princeton_2
```

Format

An object of class character of length 3.

Details

Note that Wikipedia: Shades of orange defines uni_princeton_2[1] as "Princeton orange".

The color "black" was added to enable symmetrical color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-28.

Source

Color definitions are based on https://communications.princeton.edu/guides-tools/logo-graphic-identity.

See Also

uni_princeton_0 for basic Princeton University colors; uni_princeton_1 for Princeton University colors (on white backgrounds); seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_princeton_2
opar <- par(no.readonly = TRUE)
par(bg = "black", col.main = "white", col = "grey")
seecol(uni_princeton_2, col_brd = "grey", lwd = 1.5,
       main = "Colors of Princeton (on black backgrounds)")
demopal(uni_princeton_2, type = 3, main = "Colors of Princeton University")
par(opar)
```

---

uni_regensburg_1 *General colors of the University of Regensburg*

Description

uni_regensburg_1 provides the general (administrative and service-oriented) colors of the University of Regensburg, Germany.

Usage

```
uni_regensburg_1
```

Format

An object of class character of length 12.

Details

Named colors of uni_regensburg_1 correspond to the following UR services:

1. neutralgrau: Main color (UR-Hausfarbe, Logo)
2. blaugrau: Leitung, Organe und Verwaltung (LOV, Ausnahme: Referate I/3, I/4, I/5, I/6)

3. schwarzrot: Chancengleichheit und Familie (Familien-Service, Frauenbeauftragte, Frauenfoerderung, Gleichstellung)
4. schilfgruen: Service-Einrichtungen der Verwaltung für Studierende (Akademisches Auslandsamt, Studentenkanzlei, Zentrales Pruefungssekretariat, Zentrale Studienberatung, Senatsbeauftragter für Behinderte und chronisch Kranke)
5. dianthusrot: Universitaetsbibliothek (UB)
6. saphirblau: Rechenzentrum (RZ)
7. farngruen: Zentrum fuer Weiterbildung
8. rotbraun: Zentrum fuer Sprache und Kommunikation (ZSK)
9. perlviolett: Europaeum (Ost-West-Zentrum)
10. violettrot: Zentrum fuer Hochschul- und Wissenschaftsdidaktik (ZHW)
11. gruenbraun: Regensburger Universitätszentrum fuer Lehrerbildung (RUL)
12. wasserblau: Sportzentrum (SZ)

When coloring large areas, named colors may be used in shades of 70

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-25.

Source

Color definitions are based on https://www.uni-regensburg.de/verwaltung/corporate-design/index.html.

See Also

uni_regensburg_2 and uni_regensburg_3 for the faculty colors of the University of Regensburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_2, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_regensburg_1
seecol(uni_regensburg_1, main = "General colors of the University of Regensburg")
demopal(uni_regensburg_1, alpha = .70, type = 2,
        main = "General colors of Regensburg University")
```

`uni_regensburg_2` *Departmental colors of the University of Regensburg (for areas)*

Description

`uni_regensburg_2` provides the departmental (faculty) colors for coloring print or web areas at the University of Regensburg, Germany.

Usage

```
uni_regensburg_2
```

Format

An object of class `character` of length 12.

Details

Named colors of `uni_regensburg_2` correspond to the following UR faculties:

1. `urangelb`: Rechtswissenschaft
2. `laerchennadelgruen`: Wirtschaftswissenschaften
3. `vatikangelb`: Katholische Theologie
4. `orangerot`: Philosophie, Kunst-, Geschichts- und Gesellschaftswissenschaften
5. `heucherarot`: Humanwissenschaften
6. `heidenelkenrot`: Sprach-, Literatur- und Kulturwissenschaften
7. `blattgruen`: Biologie und Vorklinische Medizin
8. `tuerkisgruen`: Mathematik
9. `eisvogelblau`: Physik
10. `spektralblau`: Chemie und Pharmazie
11. `capriblau`: Medizin
12. `glutrot`: Informatik und Data Science

When coloring large areas, named colors can be used in shades of 70

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-30.

Source

Color definitions are based on https://www.uni-regensburg.de/verwaltung/corporate-design/index.html.

See Also

uni_regensburg_1 and uni_regensburg_3 for alternative colors of the University of Regensburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_3, uni_ulm_1, uni_ulm_2

Examples

```
uni_regensburg_2
seecol(uni_regensburg_2, main = "Departmental colors at the University of Regensburg")
demopal(uni_regensburg_2, type = 3, main = "Department colors of Regensburg University")
```

---

uni_regensburg_3 *Departmental colors of the University of Regensburg (for fonts)*

Description

uni_regensburg_3 provides the departmental (faculty) colors for web fonts at the University of Regensburg, Germany.

Usage

```
uni_regensburg_3
```

Format

An object of class character of length 12.

Details

Named colors of uni_regensburg_3 correspond to the following UR faculties:

1. urangelb: Rechtswissenschaft
2. laerchennadelgruen: Wirtschaftswissenschaften
3. vatikangelb: Katholische Theologie
4. orangerot: Philosophie, Kunst-, Geschichts- und Gesellschaftswissenschaften
5. heucherarot: Humanwissenschaften
6. heidenelkenrot: Sprach-, Literatur- und Kulturwissenschaften
7. blattgruen: Biologie und Vorklinische Medizin
8. tuerkisgruen: Mathematik
9. eisvogelblau: Physik
10. spektralblau: Chemie und Pharmazie
11. capriblau: Medizin
12. glutrot: Informatik und Data Science

Note that the font color glutrot is currently identical to the area color of uni_regensburg_2.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-11-30.

Source

Color definitions are based on https://www.uni-regensburg.de/verwaltung/corporate-design/index.html.

See Also

uni_regensburg_1 and uni_regensburg_2 for alternative colors of the University of Regensburg; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_ulm_1, uni_ulm_2

Examples

```
uni_regensburg_3
seecol(uni_regensburg_3, main = "Department colors at the University of Regensburg")
demopal(uni_regensburg_3, type = 4, seed = 13,
        main = "Using the departmental colors at Regensburg University")
```

`uni_ulm_1` *Main colors of the University of Ulm*

Description

`uni_ulm_1` provides the basic or main colors of the University of Ulm, Germany.

Usage

```
uni_ulm_1
```

Format

An object of class `character` of length 5.

Details

The color `hellblau` is alternatively defined as `RGB 125/154/170`, `HEX #7D9AAA`, `Pantone 5425 C`, or `CMYK 30/0/0/35`.

The color `dunkelgrau` is alternatively defined as `RGB 87/87/86`, `HEX #575756`, `Pantone 431 C`, or `CMYK 0/0/0/80`.

The auxiliary color `akzent` is used for decorative elements. It is alternatively defined as `RGB 169/162/141`, `HEX #A9A28D`, `Pantone 7536 C`, or `CMYK 0/0/28/38`.

See the `ac` and `usecol` functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://www.uni-ulm.de/misc/corporate-design/#c875952.

See Also

uni_ulm_2 for the departmental accent colors of the University of Ulm; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_2

Examples

```
uni_ulm_1
seecol(uni_ulm_1, main = "Main colors of the University of Ulm")
demopal(uni_ulm_1, type = 1,
        main = "Main colors of Ulm University")

# 5-color gradient:
uni_ulm_5 <- usecol(c(uni_ulm_1["hellblau"], "white"), n = 6)[1:5]
```

---

uni_ulm_2 *Departmental colors of the University of Ulm*

Description

uni_ulm_2 provides the four departmental colors of the University of Ulm, Germany.

Usage

```
uni_ulm_2
```

Format

An object of class character of length 4.

Details

The named colors of uni_ulm_2 correspond to the following departments:

1. blau: Medizin
2. rot: Ingenieurwissenschaften, Informatik und Psychologie
3. gruen: Mathematik und Wirtschaftswissenschaften

4. orange: Naturwissenschaften

See the ac and usecol functions for creating color gradients.

Value

A named vector of colors (HEX/HTML codes of type character).

Author(s)

unikn, 2022-12-30.

Source

Color definitions are based on https://www.uni-ulm.de/misc/corporate-design/#c875952.

See Also

uni_ulm_1 for the main colors of the University of Ulm; seecol for viewing and comparing color palettes; usecol for using color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors.

Other contributed color palettes: caltech_pal_1, caltech_pal_2, caltech_pal_3, eth_pal_1, eth_pal_2, eth_pal_3, fu_pal_0, fu_pal_1, fu_pal_2, fu_pal_3, hu_pal_1, hu_pal_2, lmu_pal_1, lmu_pal_2, lmu_pal_3, mpg_pal, rpi_pal_1, rpi_pal_2, rpi_pal_3, rptu_pal, uni_bonn_1, uni_bonn_2, uni_freiburg_0, uni_freiburg_1, uni_freiburg_2, uni_freiburg_blue, uni_freiburg_br, uni_freiburg_grey, uni_freiburg_info, uni_goettingen_1, uni_goettingen_2, uni_goettingen_3, uni_hamburg_1, uni_hamburg_2, uni_jena_1, uni_jena_2, uni_kiel_1, uni_kiel_2, uni_koeln_1, uni_koeln_2, uni_konstanz_1, uni_konstanz_2, uni_mannheim_1, uni_mannheim_2, uni_princeton_0, uni_princeton_1, uni_princeton_2, uni_regensburg_1, uni_regensburg_2, uni_regensburg_3, uni_ulm_1

Examples

```
uni_ulm_2
seecol(uni_ulm_2, main = "Department colors of the University of Ulm")
demopal(uni_ulm_2, type = 2, seed = 123,
        main = "Departmental colors of Ulm University")

# 5-color gradient:
uni_ulm_5 <- usecol(c(uni_ulm_2["rot"], "white"), n = 6)[1:5]
```

url_unikn *url_unikn formats an URL the uni.kn way*

Description

url_unikn removes various patterns (e.g., "http", "https", "://", "www.") from the front of a given URL and returns the remaining character string with a figure dash prefix.

Usage

```
url_unikn(url = "https://www.uni-konstanz.de/")
```

Arguments

url	The url to be written (as copied from a web browser).

See Also

xbox to create a new xbox (without text).

Other text functions: mark(), post(), uline()

Examples

```
url_unikn("https://www.uni-konstanz.de/")
```

usecol *Use a color or color palette*

Description

usecol allows using a color or color palette pal (e.g., for plotting).

Usage

```
usecol(
  pal = pal_unikn,
  n = "all",
  alpha = NA,
  distinct = FALSE,
  use_names = FALSE,
  use_col_ramp = FALSE
)
```

Arguments

pal	A color palette (as a vector of colors or color palettes). Default: pal = pal_unikn.
n	An integer value specifying the desired number of colors from the palette. Default: n = "all" (i.e., use all colors of a color palette). For the palettes defined by **unikn**, n is set to a pre-defined selection of colors if the desired number of colors is smaller than the available number. For all other palettes and values of n larger than length(pal), n compresses or extends the palette using colorRampPalette.
alpha	A factor modifying the opacity alpha (as alpha.f in adjustcolor) to a value in [0, 1]. Default: alpha = NA (i.e., no modification of opacity).
distinct	Boolean: Return only visually distinct colors? Default: distinct = FALSE (i.e., include duplicate colors).
use_names	A logical value indicating whether colors should be returned as a named vector. Default: use_names = FALSE, for compatibility with ggplot.
use_col_ramp	A logical value specifying whether the default of using pre-selected colors should be overridden and colorRampPalette should be used to process n. Default: use_col_ramp = FALSE.

Details

usecol also allows modifying and combining color palettes in various ways.

Value

A (named) vector of colors (of type character).

See Also

seecol for viewing and comparing color palettes; simcol for finding similar colors; newpal for defining new color palettes; grepal for finding named colors; shades_of to defining shades of a given color; ac for adjusting color transparency; pal_unikn for the default uni.kn color palette.

Other color functions: ac(), demopal(), grepal(), newpal(), seecol(), shades_of(), simcol()

Examples

```
usecol(pal = pal_unikn, n = "all")  # default color palette
usecol(pal = pal_unikn, n =  4)     # selecting n dedicated colors
usecol(pal = pal_unikn, n = 20)     # extending color palette

# Mixing a new color palette:
pal_1 <- usecol(pal = c(rev(pal_seeblau), "white", pal_pinky))
seecol(pal_1)

# Mixing and extending a color palette:
pal_2 <- usecol(pal = c(rev(pal_seegruen), "white", pal_bordeaux), n = 20)
seecol(pal_2)

# Defining and using a custom color palette:
```

```
pal_princeton_1 <- c("#E77500", "white", "black")
names(pal_princeton_1) <- c("orange_w", "white", "black")

pal_3 <- usecol(pal_princeton_1, n = 7)
seecol(pal_3)

# Removing visual duplicates:
usecol(c("black", "#000000", "gray", "grey", "red", "red1"), distinct = TRUE)
seecol(usecol(c(pal_unikn, pal_seeblau), distinct = TRUE), title = "Using distinct colors")
```

---

xbox *Plot a box (with x)*

Description

xbox plots a box with a cross (x) in its top-right corner.

Usage

```
xbox(col = Seeblau, dim = c(1, 1), use_x = TRUE)
```

Arguments

col	The color to fill the box with (i.e., its background color). Default: col = Seeblau.
dim	The x- and y-dimensions of the box (as numeric). Default: dim = c(1, 1) (i.e., a unit square).
use_x	Plot a cross in upper right corner (as logical)? Default: use_x = TRUE.

Details

The cross (x) appears rectangular when viewing the plot at the correct aspect ratio (as defined by dim).

See Also

post to add text to an xbox; slide to plot a new slide (or frame).

Other plot functions: slide(), theme_grau(), theme_unikn()

Examples

```
xbox()  # default box

# Options:
xbox(col = Bordeaux)
xbox(dim = c(2, 1)) # 2:1 dimension (wider than high)
```

Index