Package: ggsci (via r-universe)

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Type Package

Title Scientific Journal and Sci-Fi Themed Color Palettes for 'ggplot2'

Version 3.2.0

Maintainer Nan Xiao <me@nanx.me>

Description A collection of 'ggplot2' color palettes inspired by plots in scientific journals, data visualization libraries, science fiction movies, and TV shows.

License GPL (>= 3)

URL https://nanx.me/ggsci/, https://github.com/nanxstats/ggsci

BugReports https://github.com/nanxstats/ggsci/issues

Depends R (>= 3.5.0)

Imports ggplot2 (>= 2.0.0), grDevices, scales

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VignetteBuilder knitr

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Repository https://nanxstats.r-universe.dev

RemoteUrl https://github.com/nanxstats/ggsci

RemoteRef HEAD

RemoteSha b5bf1fddc7a74aac06643998b0e28638df070db3

Contents

`pal_aaas` *AAAS journal color palettes*

Description

Color palettes inspired by plots in journals published by American Association for the Advancement of Science (AAAS), such as *Science* and *Science Translational Medicine*.

Usage

```
pal_aaas(palette = c("default"), alpha = 1)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"default"` (10-color palette inspired by *Science*).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_aaas("default")(10))
show_col(pal_aaas("default", alpha = 0.6)(10))
```

`pal_bmj` *BMJ color palettes*

Description

Color palette from the BMJ living style guide.

Usage

```
pal_bmj(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (9-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Hui Chen | <huichen@zju.edu.cn>

References

https://technology.bmj.com/living-style-guide/colour.html

Examples

```
library("scales")
show_col(pal_bmj("default")(9))
show_col(pal_bmj("default", alpha = 0.6)(9))
```

---

pal_bs5 *Bootstrap 5 color palettes*

Description

Bootstrap 5 color palettes.

Usage

```
pal_bs5(
  palette = c("blue", "indigo", "purple", "pink", "red", "orange", "yellow", "green",
    "teal", "cyan", "gray"),
  n = 10,
  alpha = 1,
  reverse = FALSE
)
```

Arguments

palette	Palette type. There are 11 available options: • "blue" • "indigo" • "purple" • "pink" • "red" • "orange" • "yellow"

- "green"
- "teal"
- "cyan"
- "gray"

`n` Number of individual colors to be generated.

`alpha` Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

`reverse` Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_bs5("indigo")(10))
show_col(pal_bs5("indigo", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

`pal_cosmic` *COSMIC color palettes*

Description

Color palettes inspired by the colors used in projects from the Catalogue Of Somatic Mutations in Cancers (COSMIC).

Usage

```
pal_cosmic(
  palette = c("hallmarks_light", "hallmarks_dark", "signature_substitutions"),
  alpha = 1
)
```

Arguments

`palette` Palette type. Currently there are three available options:

- "signature_substitutions" (6-color palette).
- "hallmarks_light" (10-color palette).
- "hallmarks_dark" (10-color palette).

The "hallmarks_light" option is from Hanahan and Weinberg (2011).

`alpha` Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Joshua H. Cook | <joshuacook0023@gmail.com> | @jhrcook

Examples

```
library("scales")
show_col(pal_cosmic("hallmarks_light")(10))
show_col(pal_cosmic("hallmarks_light", alpha = 0.6)(10))
show_col(pal_cosmic("hallmarks_dark")(10))
show_col(pal_cosmic("hallmarks_dark", alpha = 0.6)(10))
show_col(pal_cosmic("signature_substitutions")(6))
show_col(pal_cosmic("signature_substitutions", alpha = 0.6)(6))
```

---

pal_d3 *D3.js color palettes*

Description

Color palettes based on the colors used by D3.js.

Usage

```
pal_d3(
  palette = c("category10", "category20", "category20b", "category20c"),
  alpha = 1
)
```

Arguments

palette	Palette type. There are four available options: • "category10" (10-color palette). • "category20" (20-color palette). • "category20b" (20-color palette). • "category20c" (20-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://github.com/d3/d3-3.x-api-reference/blob/master/Ordinal-Scales.md

Examples

```
library("scales")
show_col(pal_d3("category10")(10))
show_col(pal_d3("category20")(20))
show_col(pal_d3("category20b")(20))
show_col(pal_d3("category20c")(20))
```

`pal_flatui` *Flat UI color palettes*

Description

Color palettes inspired by the Flat UI colors.

Usage

```
pal_flatui(palette = c("default", "flattastic", "aussie"), alpha = 1)
```

Arguments

`palette`	Palette type. Currently there are three available options: • `"default"` (10-color palette). • `"flattastic"` (12-color palette). • `"aussie"` (10-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.

Author(s)

Clara Jégousse | <cat3@hi.is>

Examples

```
library("scales")
show_col(pal_flatui("default")(10))
show_col(pal_flatui("flattastic")(12))
show_col(pal_flatui("aussie")(10))
show_col(pal_flatui("aussie", alpha = 0.6)(10))
```

pal_frontiers *Frontiers journal color palettes*

Description

Color palettes inspired by the colors used in *Frontiers* journals.

Usage

```
pal_frontiers(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Clara Jégousse | <cat3@hi.is>

Examples

```
library("scales")
show_col(pal_frontiers("default")(7))
show_col(pal_frontiers("default", alpha = 0.6)(7))
```

pal_futurama *Futurama color palettes*

Description

Color palettes inspired by the colors used in *Futurama*.

Usage

```
pal_futurama(palette = c("planetexpress"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "planetexpress" (12-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_futurama("planetexpress")(12))
show_col(pal_futurama("planetexpress", alpha = 0.6)(12))
```

---

pal_gsea *The GSEA GenePattern color palettes*

Description

Color palette inspired by the colors used in the heatmaps plotted by GSEA GenePattern.

Usage

```
pal_gsea(palette = c("default"), n = 12, alpha = 1, reverse = FALSE)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (continuous palette with 12 base colors).
n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_gsea("default")(12))
show_col(pal_gsea("default", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

pal_igv *Integrative Genomics Viewer (IGV) color palettes*

Description

Color palettes based on the colors used by Integrative Genomics Viewer (IGV).

Usage

```
pal_igv(palette = c("default", "alternating"), alpha = 1)
```

Arguments

palette	Palette type. There are two available options: • "default" (51-color palette). • "alternating" (2-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

James T. Robinson, Helga Thorvaldsdóttir, Wendy Winckler, Mitchell Guttman, Eric S. Lander, Gad Getz, Jill P. Mesirov. Integrative Genomics Viewer. *Nature Biotechnology* 29, 24–26 (2011).

Examples

```
library("scales")
show_col(pal_igv("default")(51))
show_col(pal_igv("alternating")(2))
```

pal_jama *Journal of the American Medical Association color palettes*

Description

Color palette inspired by plots in *The Journal of the American Medical Association*.

Usage

```
pal_jama(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (7-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_jama("default")(7))
show_col(pal_jama("default", alpha = 0.6)(7))
```

---

pal_jco *Journal of Clinical Oncology color palettes*

Description

Color palette inspired by plots in *Journal of Clinical Oncology*.

Usage

```
pal_jco(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_jco("default")(10))
show_col(pal_jco("default", alpha = 0.6)(10))
```

pal_lancet *Lancet journal color palettes*

Description

Color palettes inspired by plots in Lancet journals, such as *Lancet Oncology*.

Usage

```
pal_lancet(palette = c("lanonc"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "lanonc" (9-color palette inspired by *Lancet Oncology*).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_lancet("lanonc")(9))
show_col(pal_lancet("lanonc", alpha = 0.6)(9))
```

pal_locuszoom *LocusZoom color palette*

Description

Color palettes based on the colors used by LocusZoom.

Usage

```
pal_locuszoom(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (7-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

Pruim, Randall J., et al. (2010). LocusZoom: regional visualization of genome-wide association scan results. *Bioinformatics*, 26(18), 2336–2337.

Examples

```
library("scales")
show_col(pal_locuszoom("default")(7))
show_col(pal_locuszoom("default", alpha = 0.6)(7))
```

---

pal_material *Material Design color palettes*

Description

Material Design 2 color palettes.

Usage

```
pal_material(
 palette = c("red", "pink", "purple", "deep-purple", "indigo", "blue", "light-blue",
   "cyan", "teal", "green", "light-green", "lime", "yellow", "amber", "orange",
   "deep-orange", "brown", "grey", "blue-grey"),
 n = 10,
 alpha = 1,
 reverse = FALSE
)
```

Arguments

`palette` Palette type. There are 19 available options:

- "red"
- "pink"
- "purple"
- "deep-purple"
- "indigo"
- "blue"
- "light-blue"
- "cyan"
- "teal"
- "green"

- "light-green"
- "lime"
- "yellow"
- "amber"
- "orange"
- "deep-orange"
- "brown"
- "grey"
- "blue-grey"

n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_material("indigo")(10))
show_col(pal_material("indigo", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

---

pal_nejm *NEJM color palettes*

Description

Color palette inspired by plots in *The New England Journal of Medicine*.

Usage

```
pal_nejm(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (8-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_nejm("default")(8))
show_col(pal_nejm("default", alpha = 0.6)(8))
```

`pal_npg` *NPG journal color palettes*

Description

Color palettes inspired by plots in journals published by Nature Publishing Group, such as *Nature Reviews Cancer*.

Usage

```
pal_npg(palette = c("nrc"), alpha = 1)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"nrc"` (10-color palette inspired by *Nature Reviews Cancer*).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_npg("nrc")(10))
show_col(pal_npg("nrc", alpha = 0.6)(10))
```

`pal_observable` *Observable 10 color palette*

Description

The Observable 10 palette.

Usage

```
pal_observable(palette = c("observable10"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "observable10" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

Pettiross J (2023). "Crafting data colors and staying on brand." *Observable blog*. https://observablehq.com/blog/crafting-data-colors

Examples

```
library("scales")
show_col(pal_observable("observable10")(10))
show_col(pal_observable("observable10", alpha = 0.6)(10))
```

---

pal_rickandmorty *Rick and Morty color palettes*

Description

Color palettes inspired by the colors used in *Rick and Morty*.

Usage

```
pal_rickandmorty(palette = c("schwifty"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "schwifty" (12-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_rickandmorty("schwifty")(12))
show_col(pal_rickandmorty("schwifty", alpha = 0.6)(12))
```

pal_simpsons *The Simpsons color palettes*

Description

Color palettes inspired by the colors used in *The Simpsons*.

Usage

```
pal_simpsons(palette = c("springfield"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "springfield" (16-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_simpsons("springfield")(16))
show_col(pal_simpsons("springfield", alpha = 0.6)(16))
```

pal_startrek *Star Trek color palettes*

Description

Color palettes inspired by the colors used in *Star Trek*.

Usage

```
pal_startrek(palette = c("uniform"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "uniform" (7-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_startrek("uniform")(7))
show_col(pal_startrek("uniform", alpha = 0.6)(7))
```

`pal_tron` *Tron Legacy color palettes*

Description

Color palettes inspired by the colors used in *Tron Legacy*.

Usage

```
pal_tron(palette = c("legacy"), alpha = 1)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"legacy"` (7-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_tron("legacy")(7))
show_col(pal_tron("legacy", alpha = 0.6)(7))
```

pal_tw3 *Tailwind CSS color palettes*

Description

Tailwind CSS color palettes.

Usage

```
pal_tw3(
 palette = c("slate", "gray", "zinc", "neutral", "stone", "red", "orange", "amber",
   "yellow", "lime", "green", "emerald", "teal", "cyan", "sky", "blue", "indigo",
    "violet", "purple", "fuchsia", "pink", "rose"),
 n = 10,
 alpha = 1,
 reverse = FALSE
)
```

Arguments

`palette` Palette type. There are 22 available options:

- "slate"
- "gray"
- "zinc"
- "neutral"
- "stone"
- "red"
- "orange"
- "amber"
- "yellow"
- "lime"
- "green"
- "emerald"
- "teal"
- "cyan"
- "sky"
- "blue"
- "indigo"
- "violet"
- "purple"
- "fuchsia"
- "pink"
- "rose"

n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_tw3("rose")(10))
show_col(pal_tw3("rose", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

---

pal_uchicago *The University of Chicago color palettes*

Description

Color palettes based on the colors used by the University of Chicago.

Usage

```
pal_uchicago(palette = c("default", "light", "dark"), alpha = 1)
```

Arguments

palette	Palette type. There are three available options: • "default" (9-color palette); • "light" (9-color light palette); • "dark" (9-color dark palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://news.uchicago.edu/sites/default/files/attachments/_uchicago.identity.guidelines.pdf

Examples

```
library("scales")
show_col(pal_uchicago("default")(9))
show_col(pal_uchicago("light")(9))
show_col(pal_uchicago("dark")(9))
```

---

pal_ucscgb *UCSC Genome Browser color palette*

Description

Color palette from UCSC Genome Browser chromosome colors.

Usage

```
pal_ucscgb(palette = c("default"), alpha = 1)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (26-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_ucscgb("default")(26))
show_col(pal_ucscgb("default", alpha = 0.6)(26))
```

---

rgb_bs5 *Bootstrap 5 color palettes*

Description

Bootstrap 5 color palettes.

Usage

```
rgb_bs5(
 palette = c("blue", "indigo", "purple", "pink", "red", "orange", "yellow", "green",
    "teal", "cyan", "gray"),
  n = 10,
  alpha = 1,
  reverse = FALSE
)
```

Arguments

palette	Palette type. There are 11 available options: • "blue" • "indigo" • "purple" • "pink" • "red" • "orange" • "yellow" • "green" • "teal" • "cyan" • "gray"
n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://getbootstrap.com/docs/5.3/customize/color/#all-colors

Examples

```
library("scales")
show_col(pal_bs5("indigo")(10))
show_col(pal_bs5("indigo", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

rgb_gsea *The GSEA GenePattern color palettes*

Description

Color palette inspired by the colors used in the heatmaps plotted by GSEA GenePattern.

Usage

```
rgb_gsea(palette = c("default"), n = 12, alpha = 1, reverse = FALSE)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (continuous palette with 12 base colors).
n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Note

The 12 base colors used in this palette are derived from the HeatMapImage documentation.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("scales")
show_col(pal_gsea("default")(12))
show_col(pal_gsea("default", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

rgb_material *Material Design color palettes*

Description

Material Design 2 color palettes.

Usage

```
rgb_material(
 palette = c("red", "pink", "purple", "deep-purple", "indigo", "blue", "light-blue",
   "cyan", "teal", "green", "light-green", "lime", "yellow", "amber", "orange",
    "deep-orange", "brown", "grey", "blue-grey"),
  n = 10,
  alpha = 1,
  reverse = FALSE
)
```

Arguments

palette	Palette type. There are 19 available options: • "red" • "pink" • "purple" • "deep-purple" • "indigo" • "blue" • "light-blue" • "cyan" • "teal" • "green" • "light-green" • "lime" • "yellow" • "amber" • "orange" • "deep-orange" • "brown" • "grey" • "blue-grey"
n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://m2.material.io/design/color/the-color-system.html

Examples

```
library("scales")
show_col(pal_material("indigo")(10))
show_col(pal_material("indigo", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

`rgb_tw3` *Tailwind CSS color palettes*

Description

Tailwind CSS color palettes.

Usage

```
rgb_tw3(
 palette = c("slate", "gray", "zinc", "neutral", "stone", "red", "orange", "amber",
   "yellow", "lime", "green", "emerald", "teal", "cyan", "sky", "blue", "indigo",
    "violet", "purple", "fuchsia", "pink", "rose"),
  n = 10,
  alpha = 1,
  reverse = FALSE
)
```

Arguments

`palette` Palette type. There are 22 available options:

- `"slate"`
- `"gray"`
- `"zinc"`
- `"neutral"`
- `"stone"`
- `"red"`
- `"orange"`
- `"amber"`
- `"yellow"`
- `"lime"`
- `"green"`
- `"emerald"`
- `"teal"`
- `"cyan"`
- `"sky"`
- `"blue"`
- `"indigo"`
- `"violet"`

- "purple"
- "fuchsia"
- "pink"
- "rose"

n	Number of individual colors to be generated.
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://tailwindcss.com/docs/customizing-colors

Examples

```
library("scales")
show_col(pal_tw3("rose")(10))
show_col(pal_tw3("rose", n = 30, alpha = 0.6, reverse = TRUE)(30))
```

---

scale_color_aaas *AAAS journal color scales*

Description

See pal_aaas() for details.

Usage

```
scale_color_aaas(palette = c("default"), alpha = 1, ...)

scale_colour_aaas(palette = c("default"), alpha = 1, ...)

scale_fill_aaas(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (10-color palette inspired by *Science*).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_aaas()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_aaas()
```

---

scale_color_bmj *BMJ color scales*

Description

See pal_bmj() for details.

Usage

```
scale_color_bmj(palette = c("default"), alpha = 1, ...)

scale_colour_bmj(palette = c("default"), alpha = 1, ...)

scale_fill_bmj(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (9-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Hui Chen | <huichen@zju.edu.cn>

References

https://technology.bmj.com/living-style-guide/colour.html

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_bmj()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_bmj()
```

---

scale_color_bs5 *Bootstrap 5 color scales*

Description

See pal_bs5() for details.

Usage

```
scale_color_bs5(
 palette = c("blue", "indigo", "purple", "pink", "red", "orange", "yellow", "green",
    "teal", "cyan", "gray"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_colour_bs5(
 palette = c("blue", "indigo", "purple", "pink", "red", "orange", "yellow", "green",
```

```
    "teal", "cyan", "gray"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_fill_bs5(
 palette = c("blue", "indigo", "purple", "pink", "red", "orange", "yellow", "green",
    "teal", "cyan", "gray"),
  alpha = 1,
  reverse = FALSE,
  ...
)
```

Arguments

palette	Palette type. There are 11 available options: • "blue" • "indigo" • "purple" • "pink" • "red" • "orange" • "yellow" • "green" • "teal" • "cyan" • "gray"
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")

data("mtcars")
cor <- abs(cor(mtcars))
cor_melt <- data.frame(
  Var1 = rep(seq_len(nrow(cor)), times = ncol(cor)),
  Var2 = rep(seq_len(ncol(cor)), each = nrow(cor)),
  value = as.vector(cor)
```

```
)

ggplot(
  cor_melt,
  aes(x = Var1, y = Var2, fill = value)
) +
  geom_tile(colour = "black", size = 0.3) +
  theme_bw() +
  scale_fill_bs5("teal")
```

`scale_color_cosmic` *COSMIC color scales*

Description

See `pal_cosmic()` for details.

Usage

```
scale_color_cosmic(
  palette = c("hallmarks_light", "hallmarks_dark", "signature_substitutions"),
  alpha = 1,
  ...
)

scale_colour_cosmic(
  palette = c("hallmarks_light", "hallmarks_dark", "signature_substitutions"),
  alpha = 1,
  ...
)

scale_fill_cosmic(
  palette = c("hallmarks_light", "hallmarks_dark", "signature_substitutions"),
  alpha = 1,
  ...
)
```

Arguments

`palette`	Palette type. Currently there are three available options: • `"signature_substitutions"` (6-color palette). • `"hallmarks_light"` (10-color palette). • `"hallmarks_dark"` (10-color palette). The `"hallmarks_light"` option is from Hanahan and Weinberg (2011).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Joshua H. Cook | <joshuacook0023@gmail.com> | @jhrcook

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_cosmic()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_cosmic()
```

---

scale_color_d3 *D3.js color scales*

Description

See pal_d3() for details.

Usage

```
scale_color_d3(
  palette = c("category10", "category20", "category20b", "category20c"),
  alpha = 1,
  ...
)

scale_colour_d3(
  palette = c("category10", "category20", "category20b", "category20c"),
  alpha = 1,
  ...
)

scale_fill_d3(
  palette = c("category10", "category20", "category20b", "category20c"),
```

```
  alpha = 1,
  ...
)
```

Arguments

palette	Palette type. There are four available options: • "category10" (10-color palette). • "category20" (20-color palette). • "category20b" (20-color palette). • "category20c" (20-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://github.com/d3/d3-3.x-api-reference/blob/master/Ordinal-Scales.md

Examples

```
library("ggplot2")
data("diamonds")

p1 <- ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw()

p2 <- ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw()

p1 + scale_color_d3()
p2 + scale_fill_d3()

p1 + scale_color_d3(palette = "category20")
p2 + scale_fill_d3(palette = "category20")

p1 + scale_color_d3(palette = "category20b")
```

```
p2 + scale_fill_d3(palette = "category20b")

p1 + scale_color_d3(palette = "category20c")
p2 + scale_fill_d3(palette = "category20c")
```

`scale_color_flatui` *Flat UI color scales*

Description

See `pal_flatui()` for details.

Usage

```
scale_color_flatui(
  palette = c("default", "flattastic", "aussie"),
  alpha = 1,
  ...
)

scale_colour_flatui(
  palette = c("default", "flattastic", "aussie"),
  alpha = 1,
  ...
)

scale_fill_flatui(
  palette = c("default", "flattastic", "aussie"),
  alpha = 1,
  ...
)
```

Arguments

`palette`	Palette type. Currently there are three available options: • `"default"` (10-color palette). • `"flattastic"` (12-color palette). • `"aussie"` (10-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Clara Jégousse | <cat3@hi.is>

Examples

```
library("ggplot2")
data("diamonds")

p1 <- ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw()

p2 <- ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw()

p1 + scale_color_flatui()
p2 + scale_fill_flatui()

p1 + scale_color_flatui(palette = "default")
p2 + scale_fill_flatui(palette = "default")

p1 + scale_color_flatui(palette = "flattastic")
p2 + scale_fill_flatui(palette = "flattastic")

p1 + scale_color_flatui(palette = "aussie")
p2 + scale_fill_flatui(palette = "aussie")
```

---

scale_color_frontiers *Frontiers journal color scales*

Description

See pal_frontiers() for details.

Usage

```
scale_color_frontiers(palette = c("default"), alpha = 1, ...)

scale_colour_frontiers(palette = c("default"), alpha = 1, ...)

scale_fill_frontiers(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Clara Jégousse | <cat3@hi.is>

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_dark() +
  theme(
    panel.background = element_rect(fill = "#2D2D2D"),
    legend.key = element_rect(fill = "#2D2D2D")
  ) +
  scale_color_frontiers()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_dark() +
  theme(
    panel.background = element_rect(fill = "#2D2D2D")
  ) +
  scale_fill_frontiers()
```

---

scale_color_futurama *Futurama color scales*

Description

See pal_futurama() for details.

Usage

```
scale_color_futurama(palette = c("planetexpress"), alpha = 1, ...)

scale_colour_futurama(palette = c("planetexpress"), alpha = 1, ...)

scale_fill_futurama(palette = c("planetexpress"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "planetexpress" (12-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_futurama()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_futurama()
```

---

scale_color_gsea *The GSEA GenePattern color scales*

Description

See pal_gsea() for details.

Usage

```
scale_color_gsea(palette = c("default"), alpha = 1, reverse = FALSE, ...)

scale_colour_gsea(palette = c("default"), alpha = 1, reverse = FALSE, ...)

scale_fill_gsea(palette = c("default"), alpha = 1, reverse = FALSE, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (continuous palette with 12 base colors).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")

data("mtcars")
cor <- cor(mtcars)
cor_melt <- data.frame(
  Var1 = rep(seq_len(nrow(cor)), times = ncol(cor)),
  Var2 = rep(seq_len(ncol(cor)), each = nrow(cor)),
  value = as.vector(cor)
)

ggplot(
  cor_melt,
  aes(x = Var1, y = Var2, fill = value)
) +
  geom_tile(colour = "black", size = 0.3) +
  theme_bw() +
  scale_fill_gsea()
```

---

scale_color_igv *Integrative Genomics Viewer (IGV) color scales*

Description

See pal_igv() for details.

Usage

```
scale_color_igv(palette = c("default", "alternating"), alpha = 1, ...)

scale_colour_igv(palette = c("default", "alternating"), alpha = 1, ...)

scale_fill_igv(palette = c("default", "alternating"), alpha = 1, ...)
```

Arguments

palette	Palette type. There are two available options: • "default" (51-color palette). • "alternating" (2-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

p1 <- ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw()

p2 <- ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw()

p1 + scale_color_igv()
p2 + scale_fill_igv()

p1 + scale_colour_manual(
  values = rep(pal_igv("alternating")(2), times = 3)
)
p2 + scale_fill_manual(
  values = rep(pal_igv("alternating")(2), times = 3)
)
```

scale_color_jama *Journal of the American Medical Association color scales*

Description

See pal_jama() for details.

Usage

```
scale_color_jama(palette = c("default"), alpha = 1, ...)

scale_colour_jama(palette = c("default"), alpha = 1, ...)

scale_fill_jama(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (7-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_jama()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_jama()
```

scale_color_jco *Journal of Clinical Oncology color scales*

Description

See pal_jco() for details.

Usage

```
scale_color_jco(palette = c("default"), alpha = 1, ...)

scale_colour_jco(palette = c("default"), alpha = 1, ...)

scale_fill_jco(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_jco()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_jco()
```

scale_color_lancet *Lancet journal color scales*

Description

See `pal_lancet()` for details.

Usage

```
scale_color_lancet(palette = c("lanonc"), alpha = 1, ...)

scale_colour_lancet(palette = c("lanonc"), alpha = 1, ...)

scale_fill_lancet(palette = c("lanonc"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"lanonc"` (9-color palette inspired by *Lancet Oncology*).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_lancet()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_lancet()
```

scale_color_locuszoom *LocusZoom color scales*

Description

See pal_locuszoom() for details.

Usage

```
scale_color_locuszoom(palette = c("default"), alpha = 1, ...)

scale_colour_locuszoom(palette = c("default"), alpha = 1, ...)

scale_fill_locuszoom(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (7-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_locuszoom()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_locuszoom()
```

`scale_color_material` *Material Design color scales*

Description

See `pal_material()` for details.

Usage

```
scale_color_material(
  palette = c("red", "pink", "purple", "deep-purple", "indigo", "blue", "light-blue",
    "cyan", "teal", "green", "light-green", "lime", "yellow", "amber", "orange",
    "deep-orange", "brown", "grey", "blue-grey"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_colour_material(
  palette = c("red", "pink", "purple", "deep-purple", "indigo", "blue", "light-blue",
    "cyan", "teal", "green", "light-green", "lime", "yellow", "amber", "orange",
    "deep-orange", "brown", "grey", "blue-grey"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_fill_material(
  palette = c("red", "pink", "purple", "deep-purple", "indigo", "blue", "light-blue",
    "cyan", "teal", "green", "light-green", "lime", "yellow", "amber", "orange",
    "deep-orange", "brown", "grey", "blue-grey"),
  alpha = 1,
  reverse = FALSE,
  ...
)
```

Arguments

`palette` Palette type. There are 19 available options:

- `"red"`
- `"pink"`
- `"purple"`
- `"deep-purple"`
- `"indigo"`
- `"blue"`
- `"light-blue"`

- "cyan"
- "teal"
- "green"
- "light-green"
- "lime"
- "yellow"
- "amber"
- "orange"
- "deep-orange"
- "brown"
- "grey"
- "blue-grey"

alpha — Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.

reverse — Logical. Should the order of the colors be reversed?

... — Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")

data("mtcars")
cor <- abs(cor(mtcars))
cor_melt <- data.frame(
  Var1 = rep(seq_len(nrow(cor)), times = ncol(cor)),
  Var2 = rep(seq_len(ncol(cor)), each = nrow(cor)),
  value = as.vector(cor)
)

ggplot(
  cor_melt,
  aes(x = Var1, y = Var2, fill = value)
) +
  geom_tile(colour = "black", size = 0.3) +
  theme_bw() +
  scale_fill_material("blue-grey")
```

scale_color_nejm *NEJM color scales*

Description

See pal_nejm() for details.

Usage

```
scale_color_nejm(palette = c("default"), alpha = 1, ...)

scale_colour_nejm(palette = c("default"), alpha = 1, ...)

scale_fill_nejm(palette = c("default"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "default" (8-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_nejm()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_nejm()
```

scale_color_npg *NPG journal color scales*

Description

See pal_npg() for details.

Usage

```
scale_color_npg(palette = c("nrc"), alpha = 1, ...)

scale_colour_npg(palette = c("nrc"), alpha = 1, ...)

scale_fill_npg(palette = c("nrc"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "nrc" (10-color palette inspired by *Nature Reviews Cancer*).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_npg()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_npg()
```

scale_color_observable *Observable 10 color scales*

Description

See pal_observable() for details.

Usage

```
scale_color_observable(palette = c("observable10"), alpha = 1, ...)

scale_colour_observable(palette = c("observable10"), alpha = 1, ...)

scale_fill_observable(palette = c("observable10"), alpha = 1, ...)
```

Arguments

palette	Palette type. Currently there is one available option: "observable10" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

Pettiross J (2023). "Crafting data colors and staying on brand." *Observable blog*. https://observablehq.com/blog/crafting-data-colors

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_observable()

ggplot(
```

```
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_observable()
```

`scale_color_rickandmorty` *Rick and Morty color scales*

Description

See `pal_rickandmorty()` for details.

Usage

```
scale_color_rickandmorty(palette = c("schwifty"), alpha = 1, ...)

scale_colour_rickandmorty(palette = c("schwifty"), alpha = 1, ...)

scale_fill_rickandmorty(palette = c("schwifty"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"schwifty"` (12-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_rickandmorty()
```

```
ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_rickandmorty()
```

`scale_color_simpsons` *The Simpsons color scales*

Description

See `pal_simpsons()` for details.

Usage

```
scale_color_simpsons(palette = c("springfield"), alpha = 1, ...)

scale_colour_simpsons(palette = c("springfield"), alpha = 1, ...)

scale_fill_simpsons(palette = c("springfield"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"springfield"` (16-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
```

```
  scale_color_simpsons()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_simpsons()
```

`scale_color_startrek` *Star Trek color scales*

Description

See `pal_startrek()` for details.

Usage

```
scale_color_startrek(palette = c("uniform"), alpha = 1, ...)

scale_colour_startrek(palette = c("uniform"), alpha = 1, ...)

scale_fill_startrek(palette = c("uniform"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"uniform"` (7-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_startrek()
```

```
ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_startrek()
```

`scale_color_tron` *Tron Legacy color scales*

Description

See `pal_tron()` for details.

Usage

```
scale_color_tron(palette = c("legacy"), alpha = 1, ...)

scale_colour_tron(palette = c("legacy"), alpha = 1, ...)

scale_fill_tron(palette = c("legacy"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"legacy"` (7-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_dark() +
  theme(
    panel.background = element_rect(fill = "#2D2D2D"),
```

```
    legend.key = element_rect(fill = "#2D2D2D")
  ) +
  scale_color_tron()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_dark() +
  theme(
    panel.background = element_rect(fill = "#2D2D2D")
  ) +
  scale_fill_tron()
```

`scale_color_tw3` *Tailwind CSS color scales*

Description

See `pal_tw3()` for details.

Usage

```
scale_color_tw3(
  palette = c("slate", "gray", "zinc", "neutral", "stone", "red", "orange", "amber",
    "yellow", "lime", "green", "emerald", "teal", "cyan", "sky", "blue", "indigo",
     "violet", "purple", "fuchsia", "pink", "rose"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_colour_tw3(
  palette = c("slate", "gray", "zinc", "neutral", "stone", "red", "orange", "amber",
    "yellow", "lime", "green", "emerald", "teal", "cyan", "sky", "blue", "indigo",
     "violet", "purple", "fuchsia", "pink", "rose"),
  alpha = 1,
  reverse = FALSE,
  ...
)

scale_fill_tw3(
  palette = c("slate", "gray", "zinc", "neutral", "stone", "red", "orange", "amber",
    "yellow", "lime", "green", "emerald", "teal", "cyan", "sky", "blue", "indigo",
     "violet", "purple", "fuchsia", "pink", "rose"),
  alpha = 1,
  reverse = FALSE,
```

```
  ...
)
```

Arguments

palette	Palette type. There are 22 available options: • "slate" • "gray" • "zinc" • "neutral" • "stone" • "red" • "orange" • "amber" • "yellow" • "lime" • "green" • "emerald" • "teal" • "cyan" • "sky" • "blue" • "indigo" • "violet" • "purple" • "fuchsia" • "pink" • "rose"
alpha	Transparency level, a real number in (0, 1]. See alpha in grDevices::rgb() for details.
reverse	Logical. Should the order of the colors be reversed?
...	Additional parameters for ggplot2::discrete_scale().

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")

data("mtcars")
cor <- abs(cor(mtcars))
cor_melt <- data.frame(
  Var1 = rep(seq_len(nrow(cor)), times = ncol(cor)),
```

```
  Var2 = rep(seq_len(ncol(cor)), each = nrow(cor)),
  value = as.vector(cor)
)

ggplot(
  cor_melt,
  aes(x = Var1, y = Var2, fill = value)
) +
  geom_tile(colour = "black", size = 0.3) +
  theme_bw() +
  scale_fill_tw3("slate")
```

`scale_color_uchicago` *The University of Chicago color scales*

Description

See `pal_uchicago()` for details.

Usage

```
scale_color_uchicago(palette = c("default", "light", "dark"), alpha = 1, ...)

scale_colour_uchicago(palette = c("default", "light", "dark"), alpha = 1, ...)

scale_fill_uchicago(palette = c("default", "light", "dark"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. There are three available options: • `"default"` (9-color palette); • `"light"` (9-color light palette); • `"dark"` (9-color dark palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

References

https://news.uchicago.edu/sites/default/files/attachments/_uchicago.identity.guidelines.pdf

Examples

```
library("ggplot2")
data("diamonds")

p1 <- ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw()

p2 <- ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw()

p1 + scale_color_uchicago()
p2 + scale_fill_uchicago()

p1 + scale_color_uchicago(palette = "light")
p2 + scale_fill_uchicago(palette = "light")

p1 + scale_color_uchicago(palette = "dark")
p2 + scale_fill_uchicago(palette = "dark")
```

---

scale_color_ucscgb *UCSC Genome Browser color scales*

Description

See `pal_ucscgb()` for details.

Usage

```
scale_color_ucscgb(palette = c("default"), alpha = 1, ...)

scale_colour_ucscgb(palette = c("default"), alpha = 1, ...)

scale_fill_ucscgb(palette = c("default"), alpha = 1, ...)
```

Arguments

`palette`	Palette type. Currently there is one available option: `"default"` (26-color palette).
`alpha`	Transparency level, a real number in (0, 1]. See `alpha` in `grDevices::rgb()` for details.
`...`	Additional parameters for `ggplot2::discrete_scale()`.

Author(s)

Nan Xiao | <me@nanx.me> | https://nanx.me

Examples

```
library("ggplot2")
data("diamonds")

ggplot(
  subset(diamonds, carat >= 2.2),
  aes(x = table, y = price, colour = cut)
) +
  geom_point(alpha = 0.7) +
  geom_smooth(method = "loess", alpha = 0.1, size = 1, span = 1) +
  theme_bw() +
  scale_color_ucscgb()

ggplot(
  subset(diamonds, carat > 2.2 & depth > 55 & depth < 70),
  aes(x = depth, fill = cut)
) +
  geom_histogram(colour = "black", binwidth = 1, position = "dodge") +
  theme_bw() +
  scale_fill_ucscgb()
```

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