

Package ‘ggsci’

May 21, 2024

Type Package

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

Version 3.1.0

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

Suggests gridExtra, knitr, ragg, reshape2, rmarkdown

VignetteBuilder knitr

Encoding UTF-8

RoxygenNote 7.3.1

NeedsCompilation no

Author Nan Xiao [aut, cre] (<<https://orcid.org/0000-0002-0250-5673>>),
Joshua Cook [ctb],
Clara Jégousse [ctb],
Hui Chen [ctb],
Miaozhu Li [ctb]

Repository CRAN

Date/Publication 2024-05-21 05:10:03 UTC

R topics documented:

pal_aaas	3
pal_bmj	3
pal_cosmic	4
pal_d3	5
pal_flatui	6
pal_frontiers	6
pal_futurama	7
pal_gsea	8
pal_igv	8
pal_jama	9
pal_jco	10
pal_lancet	10
pal_locuszoom	11
pal_material	12
pal_nejm	13
pal_npg	14
pal_rickandmorty	14
pal_simpsons	15
pal_startrek	16
pal_tron	16
pal_uchicago	17
pal_ucscgb	18
rgb_gsea	18
rgb_material	19
scale_color_aaas	20
scale_color_bmj	21
scale_color_cosmic	22
scale_color_d3	24
scale_color_flatui	25
scale_color_frontiers	27
scale_color_futurama	28
scale_color_gsea	29
scale_color_igv	30
scale_color_jama	31
scale_color_jco	32
scale_color_lancet	33
scale_color_locuszoom	34
scale_color_material	35
scale_color_nejm	37
scale_color_npg	38
scale_color_rickandmorty	39
scale_color_simpsons	40
scale_color_startrek	41
scale_color_tron	42
scale_color_uchicago	43
scale_color_ucscgb	44

pal_aaas	<i>AAAS journal color palettes</i>
----------	------------------------------------

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 <i>Science</i>).
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> 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	<i>BMJ color palettes</i>
---------	---------------------------

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 <code>grDevices::rgb()</code> 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_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: <ul style="list-style-type: none">"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: <ul style="list-style-type: none"> • "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	<i>Futurama color palettes</i>
--------------	--------------------------------

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: <ul style="list-style-type: none">• "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 <code>grDevices::rgb()</code> 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 <i>Lancet Oncology</i>).
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> 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	<i>LocusZoom color palette</i>
---------------	--------------------------------

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

The 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	<p>Palette type. There are 19 available options:</p> <ul style="list-style-type: none"> • "red" • "pink" • "purple" • "deep-purple" • "indigo" • "blue" • "light-blue" • "cyan" • "teal" • "green" • "light-green" • "lime" • "yellow" • "amber" • "orange", • "deep-orange" • "brown" • "grey" • "blue-grey" <p>For details, see Material Design color system.</p>
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	<i>NEJM color palettes</i>
----------	----------------------------

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 <i>Nature Reviews Cancer</i>).
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> 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_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 <code>grDevices::rgb()</code> 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 <code>grDevices::rgb()</code> 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 <code>grDevices::rgb()</code> 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_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: <ul style="list-style-type: none">• "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 <code>grDevices::rgb()</code> 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_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 <code>grDevices::rgb()</code> 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

The 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"

For details, see [Material Design color system](#).

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))
```

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 <i>Science</i>).
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> for details.
...	Additional parameters for <code>ggplot2::discrete_scale()</code> .

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 <code>grDevices::rgb()</code> for details.
...	Additional parameters for <code>ggplot2::discrete_scale()</code> .

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_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	<p>Palette type. Currently there are three available options:</p> <ul style="list-style-type: none"> • "signature_substitutions" (6-color palette). • "hallmarks_light" (10-color palette). • "hallmarks_dark" (10-color palette). <p>The "hallmarks_light" option is from Hanahan and Weinberg (2011).</p>
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: <ul style="list-style-type: none"> • "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: <ul style="list-style-type: none"> • "default" (10-color palette). • "flattastic" (12-color palette). • "aussie" (10-color palette).
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> for details.
...	Additional parameters for <code>ggplot2::discrete_scale()</code> .

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")
library("reshape2")
data("mtcars")

cor <- cor(mtcars)
cor_melt <- melt(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: <ul style="list-style-type: none">"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 <i>Lancet Oncology</i>).
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 palettes*

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	<p>Palette type. There are 19 available options:</p> <ul style="list-style-type: none"> • "red" • "pink" • "purple" • "deep-purple" • "indigo" • "blue" • "light-blue" • "cyan" • "teal" • "green" • "light-green" • "lime" • "yellow" • "amber" • "orange", • "deep-orange" • "brown" • "grey" • "blue-grey" <p>For details, see Material Design color system.</p>
alpha	Transparency level, a real number in (0, 1]. See alpha in <code>grDevices::rgb()</code> for details.
reverse	Logical. Should the order of the colors be reversed?
...	Additional parameters for <code>ggplot2::discrete_scale()</code> .

Author(s)

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

Examples

```
library("ggplot2")
library("reshape2")
data("mtcars")

cor <- abs(cor(mtcars))
cor_melt <- melt(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 <i>Nature Reviews Cancer</i>).
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_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_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()
```

Index

`ggplot2::discrete_scale()`, [21–24](#), [26–34](#),
[36–42](#), [44](#), [45](#)
`grDevices::rgb()`, [3–18](#), [20–24](#), [26–34](#),
[36–42](#), [44](#), [45](#)

`pal_aaas`, [3](#)
`pal_aaas()`, [20](#)
`pal_bmj`, [3](#)
`pal_bmj()`, [21](#)
`pal_cosmic`, [4](#)
`pal_cosmic()`, [22](#)
`pal_d3`, [5](#)
`pal_d3()`, [24](#)
`pal_flatui`, [6](#)
`pal_flatui()`, [25](#)
`pal_frontiers`, [6](#)
`pal_frontiers()`, [27](#)
`pal_futurama`, [7](#)
`pal_futurama()`, [28](#)
`pal_gsea`, [8](#)
`pal_gsea()`, [29](#)
`pal_igv`, [8](#)
`pal_igv()`, [30](#)
`pal_jama`, [9](#)
`pal_jama()`, [31](#)
`pal_jco`, [10](#)
`pal_jco()`, [32](#)
`pal_lancet`, [10](#)
`pal_lancet()`, [33](#)
`pal_locuszoom`, [11](#)
`pal_locuszoom()`, [34](#)
`pal_material`, [12](#)
`pal_material()`, [35](#)
`pal_nejm`, [13](#)
`pal_nejm()`, [37](#)
`pal_npg`, [14](#)
`pal_npg()`, [38](#)
`pal_rickandmorty`, [14](#)
`pal_rickandmorty()`, [39](#)
`pal_simpsons`, [15](#)
`pal_simpsons()`, [40](#)
`pal_startrek`, [16](#)
`pal_startrek()`, [41](#)
`pal_tron`, [16](#)
`pal_tron()`, [42](#)
`pal_uchicago`, [17](#)
`pal_uchicago()`, [43](#)
`pal_ucscgb`, [18](#)
`pal_ucscgb()`, [44](#)

`rgb_gsea`, [18](#)
`rgb_material`, [19](#)

`scale_color_aaas`, [20](#)
`scale_color_bmj`, [21](#)
`scale_color_cosmic`, [22](#)
`scale_color_d3`, [24](#)
`scale_color_flatui`, [25](#)
`scale_color_frontiers`, [27](#)
`scale_color_futurama`, [28](#)
`scale_color_gsea`, [29](#)
`scale_color_igv`, [30](#)
`scale_color_jama`, [31](#)
`scale_color_jco`, [32](#)
`scale_color_lancet`, [33](#)
`scale_color_locuszoom`, [34](#)
`scale_color_material`, [35](#)
`scale_color_nejm`, [37](#)
`scale_color_npg`, [38](#)
`scale_color_rickandmorty`, [39](#)
`scale_color_simpsons`, [40](#)
`scale_color_startrek`, [41](#)
`scale_color_tron`, [42](#)
`scale_color_uchicago`, [43](#)
`scale_color_ucscgb`, [44](#)
`scale_colour_aaas` (`scale_color_aaas`), [20](#)
`scale_colour_bmj` (`scale_color_bmj`), [21](#)
`scale_colour_cosmic`
(`scale_color_cosmic`), [22](#)
`scale_colour_d3` (`scale_color_d3`), [24](#)

- scale_colour_flatui
 - (scale_color_flatui), 25
- scale_colour_frontiers
 - (scale_color_frontiers), 27
- scale_colour_futurama
 - (scale_color_futurama), 28
- scale_colour_gsea (scale_color_gsea), 29
- scale_colour_igv (scale_color_igv), 30
- scale_colour_jama (scale_color_jama), 31
- scale_colour_jco (scale_color_jco), 32
- scale_colour_lancet
 - (scale_color_lancet), 33
- scale_colour_locuszoom
 - (scale_color_locuszoom), 34
- scale_colour_material
 - (scale_color_material), 35
- scale_colour_nejm (scale_color_nejm), 37
- scale_colour_npg (scale_color_npg), 38
- scale_colour_rickandmorty
 - (scale_color_rickandmorty), 39
- scale_colour_simpsons
 - (scale_color_simpsons), 40
- scale_colour_startrek
 - (scale_color_startrek), 41
- scale_colour_tron (scale_color_tron), 42
- scale_colour_uchicago
 - (scale_color_uchicago), 43
- scale_colour_ucscgb
 - (scale_color_ucscgb), 44
- scale_fill_aaas (scale_color_aaas), 20
- scale_fill_bmj (scale_color_bmj), 21
- scale_fill_cosmic (scale_color_cosmic), 22
- scale_fill_d3 (scale_color_d3), 24
- scale_fill_flatui (scale_color_flatui), 25
- scale_fill_frontiers
 - (scale_color_frontiers), 27
- scale_fill_futurama
 - (scale_color_futurama), 28
- scale_fill_gsea (scale_color_gsea), 29
- scale_fill_igv (scale_color_igv), 30
- scale_fill_jama (scale_color_jama), 31
- scale_fill_jco (scale_color_jco), 32
- scale_fill_lancet (scale_color_lancet), 33
- scale_fill_locuszoom
 - (scale_color_locuszoom), 34
- scale_fill_material
 - (scale_color_material), 35
- scale_fill_nejm (scale_color_nejm), 37
- scale_fill_npg (scale_color_npg), 38
- scale_fill_rickandmorty
 - (scale_color_rickandmorty), 39
- scale_fill_simpsons
 - (scale_color_simpsons), 40
- scale_fill_startrek
 - (scale_color_startrek), 41
- scale_fill_tron (scale_color_tron), 42
- scale_fill_uchicago
 - (scale_color_uchicago), 43
- scale_fill_ucscgb (scale_color_ucscgb), 44