

Package ‘cetcolor’

July 22, 2025

Title CET Perceptually Uniform Colour Maps

Version 0.2.0

Description Collection of perceptually uniform colour maps made by Peter Kovesi
(2015) ``Good Colour Maps: How to Design Them" <[doi:10.48550/arXiv.1509.03700](https://doi.org/10.48550/arXiv.1509.03700)>
at the Centre for Exploration Targeting (CET).

Depends R (>= 3.3.0)

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URL <https://github.com/coatless/cetcolor>,
<http://thecoatlessprofessor.com/projects/cetcolor/>,
<http://peterkovesi.com/projects/colourmaps/>

BugReports <https://github.com/coatless/cetcolor/issues>

Encoding UTF-8

LazyData true

Suggests knitr, rmarkdown

VignetteBuilder knitr

RoxygenNote 6.0.1

NeedsCompilation no

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cetcolor-package	<i>cetcolor: CET Perceptually Uniform Colour Maps</i>
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Description

Collection of perceptually uniform colour maps made by Peter Kovesi (2015) "Good Colour Maps: How to Design Them" <arXiv:1509.03700> at the Centre for Exploration Targeting (CET).

Details

56 Colour maps are available as of May 2018

Author(s)

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- Peter Kovesi <peter.kovesi@uwa.edu.au> (Creator of CET Color Maps) [copyright holder]

See Also

Useful links:

- <https://github.com/coatless/cetcolor>
- <http://thecoatlessprofessor.com/projects/cetcolor/>
- <http://peterkovesi.com/projects/colourmaps/>
- Report bugs at <https://github.com/coatless/cetcolor/issues>

cet_color_maps	<i>RGB Value Map of the CET Perceptually Uniform Colour Maps</i>
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Description

A list of data.frames that have the RGB values of the CET Perceptually Uniform Colour Maps as released in May 2018 with the original maps released in June 2016.

Usage

```
cet_color_maps
```

Format

A list with each entry coded as a data frame with 256 observations and 3 variables:

- R: Red value
- G: Green value
- B: Blue value

The following color maps have been included:

Cyclic Colour Maps

- c1, formerly: cyclic_mrybm_35-75_c68_n256
- c1s, formerly: cyclic_mrybm_35-75_c68_n256_s25
- c2, formerly: cyclic_mygbm_30-95_c78_n256
- c2s, colorwheel, formerly: cyclic_mygbm_30-95_c78_n256_s25
- c4, formerly: cyclic_wrbw_40-90_c42_n256
- c4s, formerly: cyclic_wrbw_40-90_c42_n256_s25
- c5, formerly: cyclic_grey_15-85_c0_n256
- c5s, formerly: cyclic_grey_15-85_c0_n256_s25

Diverging Colour Maps

- d1, coolwarm, formerly: diverging_bwr_40-95_c42_n256
- d1a, long: diverging_bwr_20-95_c54_n256
- d2, gwv, formerly: diverging_gwv_55-95_c39_n256
- d3, formerly: diverging_gwr_55-95_c38_n256
- d4, bkr, formerly: diverging_bkr_55-10_c35_n256
- d6, bky, formerly: diverging_bky_60-10_c30_n256
- d7, bjj, formerly: diverging-linear_bjj_30-90_c45_n256
- d8, formerly: diverging-linear_bjr_30-55_c53_n256
- d9, formerly: diverging_bwr_55-98_c37_n256
- d10, formerly: diverging_cwm_80-100_c22_n256
- d11, formerly: diverging-isoluminant_cjo_70_c25_n256
- d12, formerly: diverging-isoluminant_cjm_75_c23_n256
- d13, long: diverging_bwg_20-95_c41_n256
- diverging-isoluminant_cjm_75_c24_n256
- diverging_gkr_60-10_c40_n256

Isoluminant Colour Maps

- i1, formerly: isoluminant_cm_70_c39_n256
- i2, isolum, formerly: isoluminant_cgo_80_c38_n256
- i3, formerly: isoluminant_cgo_70_c39_n256

Linear Colour Maps

- 11, gray, formerly: linear_grey_0-100_c0_n256
- 12, dimgray formerly: linear_grey_10-95_c0_n256
- 13, long: linear_kryw_0-100_c71_n256
- 14, long: linear_kry_0-97_c73_n256
- 15, kgy, formerly: linear_green_5-95_c69_n256
- 16, formerly: linear_blue_5-95_c73_n256
- 17, formerly: linear_bmw_5-95_c86_n256
- 18, formerly: linear_bmy_10-95_c71_n256
- 19, long: linear_bgyw_20-98_c66_n256
- 110, formerly: linear_gow_60-85_c27_n256
- 111, formerly: linear_gow_65-90_c35_n256
- 112, blues, formerly: linear_blue_95-50_c20_n256
- 113, kr, formerly: linear_ternary-red_0-50_c52_n256
- 114, long: linear_ternary-green_0-46_c42_n256
- 115, kb, formerly: linear_ternary-blue_0-44_c57_n256
- 116, long: linear_kbgw_5-98_c62_n256
- 117, long: linear_worb_100-25_c53_n256
- 118, long: linear_wyor_100-45_c55_n256
- 119, long: linear_wcmr_100-45_c42_n256
- bgy, linear_bgy_10-95_c74_n256
- linear_bgyw_15-100_c67_n256
- bgyw, linear_bgyw_15-100_c68_n256
- bmw, linear_bmw_5-95_c89_n256
- inferno, linear_bmy_10-95_c78_n256
- linear_kry_5-95_c72_n256
- linear_kry_5-98_c75_n256
- linear_kryw_5-100_c64_n256
- fire, linear_kryw_5-100_c67_n256
- kg, linear_ternary-green_0-46_c42_n256

Rainbow Colour Maps

- r1, formerly: rainbow_bgymr_35-85_c69_n256
- r2, formerly: rainbow_bgyr_35-85_c72_n256
- r3, formerly: diverging-rainbow_bgymr_45-85_c67_n256
- rainbow, rainbow_bgyr_35-85_c73_n256
- rainbow_bgymr_35-85_c71_n256

Colour Blind

- cbl1, long: linear-protanopic-deutanopic_kbjyw_5-95_c25_n256
- cbl2, long: linear-protanopic-deutanopic_kbw_5-98_c40_n256
- cbd1, long: diverging-protanopic-deutanopic_bwy_60-95_c32_n256
- cbc1, long: cyclic-protanopic-deutanopic_bwyk_16-96_c31_n256
- cbc2, long: cyclic-protanopic-deutanopic_wywb_55-96_c33_n256
- cbl1, long: linear-tritanopic_krjcw_5-98_c46_n256
- cbl2, long: linear-tritanopic_krjcw_5-95_c24_n256
- cbtd1, long: diverging-tritanopic_cwr_75-98_c20_n256
- cbtc1, long: cyclic-tritanopic_cwrk_40-100_c20_n256
- cbtc2, long: cyclic-tritanopic_wrwc_70-100_c20_n256

Source

http://peterkovesi.com/projects/colourmaps/CETperceptual_csv_0_1.zip

References

<http://peterkovesi.com/projects/colourmaps/>

cet_pal

CET Perceptually Uniform Color Maps

Description

Extract n RGB Hexadecimal colors from the perceptually uniform color maps developed by **Peter Kovesi**.

Usage

```
cet_pal(n, name = "rainbow", alpha = 1)
```

Arguments

- | | |
|-------|--|
| n | A numeric value greater than one indicating how many colors to use from the color map. |
| name | A string indicating the color map to use. There are 51 options available. Please see <code>cet_color_maps()</code> for more information. By default, the "rainbow" color scheme is used. |
| alpha | A numeric value between $[0, 1]$ that indicates the level of transparency. |

Value

A character vector containing the RGB hexadecimal representation of the requested color map.

References

Peter Kovesi. Good Colour Maps: How to Design Them. [arXiv:1509.03700 cs.GR 2015](#)

Examples

```
# Grab 8 colors from rainbow or rainbow_bgyr_35-85_c73_n256
colors = cet_pal(8)
plot(1:8, 1:8, col=colors, pch=19, cex=3, xlab="", ylab="")

# Grab 25 colors from coolwarm or diverging_bwr_40-95_c42_n256
colors = cet_pal(25, name = "coolwarm")
plot(1:25, 1:25, col=colors, pch=19, cex=3, xlab="", ylab="")
```

display_cet_pal	<i>Display CET Color Maps</i>
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Description

Offers a variety of ways to preview CET Color Maps.

Usage

```
display_cet_pal(n = 256, name = "rainbow", alpha = 1)

display_cet_attribute(n = 256, attribute = "rainbow", alpha = 1)

display_cet_all(n = 256, alpha = 1)
```

Arguments

n	A numeric value greater than one indicating how many colors to use from the color map.
name	A string indicating the color map to use. There are 51 options available. Please see cet_color_maps() for more information. By default, the "rainbow" color scheme is used.
alpha	A numeric value between [0, 1] that indicates the level of transparency.
attribute	A character string indicating the attribute. Accepted values are: "rainbow" (Default), "linear", "diverging", "cyclic", "isoluminant", and "colorblind".

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