Package ‘colorRamps’

March 7, 2024

Type Package

Title Builds Color Tables

Version 2.3.4

Date 2024-03-05

Description Builds gradient color maps.

License GPL

NeedsCompilation no

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Repository CRAN

Date/Publication 2024-03-07 00:00:07 UTC

R topics documented:

colorRamps-package .................................................. 2
blue2red ............................................................... 3
blue2yellow ............................................................ 4
matlab.like ............................................................ 5
primary.colors ........................................................ 6
rgb.tables .............................................................. 7
ygobb ................................................................. 8

Index 9
colorRamps-package

Builds color maps

Description

This (v2) is a rewrite of the colorRamps package. It now contains two function `table.ramp` and `rgb.tables` that allow easy construction of color palettes. This version contains two new palettes similar to the Matlab default palette (`matlab.like` and `matlab.like2`).

I built colorRamps because I needed to use a particular palette and got tired of sourcing in my code into every session. Now I can install and forget. Despite using R for years, I had not noticed the alternative `colorRamp` which may suit your needs. If you want really attractive palettes, get the RColorBrewer package from CRAN. For certain applications the RColorBrewer palettes do not work for me, hence this package.

Details

- Package: colorRamps
- Type: Package
- Version: 2.0
- Date: 2007-09-09
- License: GPL

Most functions take a single argument \( n \) that specifies the number of colors to generate.

Author(s)

Tim Keitt
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References


Examples

```r
filled.contour(volcano, col = ygobb(21), asp = 1)
```
blue2red

Returns a gradient color map

Description

blue2red makes a color map that runs from blue -> cyan -> yellow -> red. blue2green makes a color map that runs from blue -> magenta -> yellow -> green. green2red makes a color map that runs from green -> cyan -> magenta -> red.

Usage

blue2red(n)
blue2green(n)
green2red(n)

Arguments

n  number of colors

Details

These are double-ramp maps with a sharp transition from cooler colors to warmer colors at the midpoint. With proper scaling, this will highlight the mean, median, etc.

Value

A colormap

Author(s)

Tim Keitt <tkeitt@gmail.com>

References


See Also

rgb

Examples

image(matrix(1:400, 20), col = blue2red(400))
image(matrix(1:400, 20), col = blue2green(400))
image(matrix(1:400, 20), col = green2red(400))
blue2yellow

Returns a gradient color map

Description

blue2yellow makes a blue to yellow gradient color map

Usage

blue2yellow(n)
cyan2yellow(n)
magenta2green(n)

Arguments

n number of colors

Details

These are single gradient maps that smoothly transition from cooler to warmer colors. See blue2red for double gradient maps.

Value

A color map

Author(s)

Tim Keitt <tkeitt@gmail.com>

References


See Also

rgb

Examples

image(matrix(1:400, 20), col = blue2yellow(400))
Generate color palettes similar to the matlab default

Description
Generates matlab-like color palettes

Usage
matlab.like(n)
matlab.like2(n)
blue2green2red(n)

Arguments
n number of colors

Details
blue2green2red is simply an alias for matlab.like2.

Value
a color palette

Author(s)
Timothy H. Keitt

References

Examples
image(matrix(1:400, 20), col = blue2yellow(400))
primary.colors generates expanded sets of primary colors

Description

Combines red, green and blue values to create primary colors

Usage

primary.colors(n, steps = 3, no.white = TRUE)

Arguments

n number of colors to generate (optional)
steps number of rgb intensity levels
no.white boolean indicating whether to return white

Details

The standard R palette only provides 8 colors after which colors are recycled. If you need a few more colors that are redily distinguished in multivariate plots, this function can help.

Value

An R color palette

Author(s)

Timothy H. Keitt

References


Examples

x <- matrix(rnorm(100), 10)
x <- sapply(1:10, function(i, x) cumsum(x[,i]), x=x)
par(mfrow = c(1, 2))
matplot(1:10, x, type = 'l', lty = 1, lwd = 3)
matplot(1:10, x, type = 'l', lty = 1, lwd = 3, col = primary.colors(10))
rgb.tables

constructs color palettes with sharp breaks

Description

rgb.tables wraps table.ramp and simply passes values supplied in the red, green and blue arguments. table.ramp makes a color ramp with a flat top.

Usage

rgb.tables(n, red = c(0.75, 0.25, 1), green = c(0.5, 0.25, 1), blue = c(0.25, 0.25, 1))
table.ramp(n, mid = 0.5, sill = 0.5, base = 1, height = 1)

Arguments

n number of colors to generate
red a length 3 vector with values mid, sill and base
green same as red
blue same as red
mid table center on (0, 1)
sill width of table top on (0, 1)
base width of table base on (0, 1)
height sill height on (0, 1)

Value

rgb.tables returns a color palette. table.ramp returns a simple vector of values.

Author(s)

Timothy H. Keitt

References


See Also

colorRamp

Examples

table.ramp(10)
rgb.tables(10)
ygobb

Returns a gradient color map

Description

tygobb makes a color map that runs from yellow -> green -> olive -> blue -> black.

Usage

tygobb(n)

Arguments

n number of colors

Details

I am still working on this one.

Value

A colormap

Author(s)

Tim Keitt <tkeitt@gmail.com>

References


See Also

rgb

Examples

image(matrix(1:400, 20), col = ygobb(400))
Index

* **color**
  * blue2red, 3
  * blue2yellow, 4
  * matlab.like, 5
  * primary.colors, 6
  * rgb.tables, 7
  * ygobb, 8

* **package**
  * colorRamps-package, 2

  blue2green (blue2red), 3
  blue2green2red (matlab.like), 5
  blue2red, 3, 4
  blue2yellow, 4

  colorRamp, 2, 7
  colorRamps (colorRamps-package), 2
  colorRamps-package, 2
  cyan2yellow (blue2yellow), 4

  green2red (blue2red), 3

  magenta2green (blue2yellow), 4
  matlab.like, 2, 5
  matlab.like2, 2
  matlab.like2 (matlab.like), 5

  primary.colors, 6

  rgb, 3, 4, 8
  rgb.tables, 2, 7

  table.ramp, 2
  table.ramp (rgb.tables), 7

  ygobb, 8