Package: colorRamps (via r-universe)

September 3, 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 https://jefferis.r-universe.dev

RemoteUrl https://github.com/cran/colorRamps

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RemoteSha 680c01c27c78b340702c083372af44d52aa77566

Contents

`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

Maintainer: Tim Keitt <tkeitt@gmail.com>

References

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

Examples

```
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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

See Also

`rgb`

Examples

```
image(matrix(1:400, 20), col = blue2yellow(400))
```

`matlab.like` *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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

See Also

colorRamp

Examples

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

ygobb *Returns a gradient color map*

Description

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

Usage

```
ygobb(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

Keitt, T. H. (2008) Coherent ecological dynamics induced by large scale disturbance. *Nature* 454:331-334

See Also

rgb

Examples

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

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