

The colorRamps Package

July 5, 2008

Type Package

Title Builds color tables

Version 2.2

VersionSplus 2.2-1

Date 2007-09-09

Author Tim Keitt

Maintainer Tim Keitt <tkeitt@gmail.com>

MaintainerSplus Stephen Kaluzny <spk@insightful.com>

Description Builds gradient color maps

License GPL

R topics documented:

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

`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 <tkcitt@gmail.com>

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	<i>Returns a gradient color map</i>
-------------	-------------------------------------

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>

See Also

[rgb](#)

Examples

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

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 <tknitt@gmail.com>

Examples

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

`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

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 readily distinguished in multivariate plots, this function can help.

Value

An R color palette

Author(s)

Timothy H. Keitt

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))
```

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>

See Also

[rgb](#)

Examples

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

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)
```

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	
sill	
base	
	width of table base on (0, 1)

Value

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

Author(s)

Timothy H. Keitt

See Also

[colorRamp](#)

Examples

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

Index

*Topic **color**

- blue2red, 1
- blue2yellow, 2
- matlab.like, 4
- primary.colors, 5
- rgb.tables, 6
- ygobb, 6

*Topic **package**

- colorRamps-package, 3

- blue2green (*blue2red*), 1
- blue2green2red (*matlab.like*), 4
- blue2red, 1, 2
- blue2yellow, 2

- colorRamp, 3, 7
- colorRamps (*colorRamps-package*), 3
- colorRamps-package, 3
- cyan2yellow (*blue2yellow*), 2

- green2red (*blue2red*), 1

- magenta2green (*blue2yellow*), 2
- matlab.like, 3, 4
- matlab.like2, 3
- matlab.like2 (*matlab.like*), 4

- primary.colors, 5

- rgb, 2, 3, 6
- rgb.tables, 3, 6

- table.ramp, 3
- table.ramp (*rgb.tables*), 6

- ygobb, 6