# Package 'colorRamps'

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**Type** Package

**Title** Builds Color Tables

**Version** 2.3.1

**Date** 2007-09-09

**Author** Tim Keitt

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**Description** Builds gradient color maps.

**License** GPL

**Repository** CRAN

**Date/Publication** 2022-05-02 13:01:48 UTC

**NeedsCompilation** no

## R topics documented:



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`colorRamps-package` *Builds color maps*

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## 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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