Package 'RGraphics'

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Title Data and Functions from the book R Graphics, Second Edition

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Description Data and Functions from the book R Graphics, Second Edition. There is a function to produce each figure in the book, plus several functions, classes, and methods defined in Chapter 8.

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Depends R (>= 2.13.0), datasets, stats, grDevices, graphics, methods, grid, lattice, ggplot2

Suggests agricolae, animation, CircStats, circular, cluster, colorspace, diagram, dichromat, gplots, graph, gridBase, gridExtra, gridSVG, grImport, gWidgets, gWidgetsRGtk2, hexbin, Hmisc, hyperdraw, hypergraph, igraph, iplots, ipred, latticeExtra, mapdata, maps, maptools, MASS, misc3d, munsell, network, openair, oz, party, pixmap, playwith, plotrix, pmg, png, quantmod, raster, Rcmdr, RColorBrewer, rgdal, rggobi, rgl, RGraphics, Rgraphviz, scatterplot3d, soiltexture, sp, SVGAnnotation, symbols, TeachingDemos, tools, vcd, vcdExtra, venneuler, vrmlgen, XML

Additional_repositories http://www.omegahat.org/R

License GPL

LazyData yes

URL http://www.stat.auckland.ac.nz/~paul/RG2e/index.html

NeedsCompilation no

Repository CRAN

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R topics documented:

`face` *Draw a face*

Description

Draws a face, consisting of a rectangle for the border, circles for eyes, and a line for the mouth.

Usage

```
faceA(x, y, width, height)
faceB(x, y, width, height)
faceC(x, y, width, height)
faceD(x, y, width, height)
faceE(x, y, width, height)
```

Arguments

`x, y, width, height`
: Numeric values or unit objects specifying the location and size of the face.

Details

The functions `faceA` and `faceB` are graphics functions to be used for their side effect of producing graphical output. The functions `faceC`, `faceD`, and `faceE` return a grob representing a face (and produce no output).

fluoro.predict *Predicted Surface of Fluorescence*

Description

These data give a prediction surface for fluorescence at the thermocline over a region off the coast of South Australia.

Usage

```
fluoro.predict
```

Format

A list with elements: `x` containing longitude at 50 locations; `y` containing latitude at 50 locations; and `z` containing a 50 by 50 matrix of surface predictions.

References

S. McClatchie and T.M. Ward. (in press), *Alongshore variation in upwelling intensity in the eastern Great Australian Bight*, Journal of Geophysical Research.

grid.imageFun *Draw an Image*

Description

Draws an array of `nrow` by `ncol` rectangles.

Usage

```
grid.imageFun(nrow, ncol, cols, byrow=TRUE)
```

Arguments

`nrow, ncol`	Number of rows/columns in the image.
`cols`	Colors for the cells of the image (will be recycled).
`byrow`	Logical value indicating whether colors should be allocated to cells across rows or down columns.

grid.imageGrob *Draw an Image*

Description

Creates an imageGrob and then draws it.

Usage

```
grid.imageGrob(...)
```

Arguments

...	Arguments to be passed to imageGrob.

grid.ozFun *Draw a Map of Australia*

Description

Draws a map of Australia (or part thereof).

Usage

```
grid.ozFun(ozRegion)
```

Arguments

ozRegion	An object created using the ozRegion function from the **oz** package.

hourlySpeed *Auckland Wind Data*

Description

These data give measurements of hourly average wind speed based on data from 11 weather stations located around Auckland, New Zealand. There are hourly readings every day for one month (September 2010).

Usage

```
hourlySpeed
```

Format

A data frame with columns:

Speed The wind speed.

day Day of the year, from 237 to 271.

hour Hour of the day, from 0 to 23.

References

The data were obtained from the New Zealand National Climate Database (http://cliflo.niwa.co.nz/).

`imageGrob` *Create an Image*

Description

Creates an array of `nrow` by `ncol` rectangles.

Usage

```
imageGrob(nrow, ncol, cols, byrow=TRUE,
          name=NULL, gp=NULL, vp=NULL)
```

Arguments

`nrow, ncol`	Number of rows/columns in the image.
`cols`	Colors for the cells of the image (will be recycled).
`byrow`	Logical value indicating whether colors should be allocated to cells across rows or down columns.
`name`	A character name for the grob.
`gp`	A `gpar` object containing graphical parameter settings or `NULL`.
`vp`	A viewport or `NULL`.

ozGrob *Create a Map of Australia*

Description

Creates a map of Australia (or part thereof). `grid.ozGrob` also draws the map.

Usage

```
ozGrob(ozRegion, name=NULL, gp=NULL, vp=NULL)
grid.ozGrob(...)
```

Arguments

`ozRegion`	An object created using the `ozRegion` function from the **oz** package.
`name`	A character name for the grob.
`gp`	A `gpar` object containing graphical parameter settings or `NULL`.
`vp`	A viewport or `NULL`.
`...`	Arguments to be passed to `ozGrob`.

ozImage *Create an Image on a Map of Australia*

Description

Creates a map of Australia (or part thereof), plus an `imageGrob` positioned relative to the map.

Usage

```
ozImage(mapLong, mapLat, imageLong, imageLat, cols)
```

Arguments

`mapLong, mapLat`	Longitude and latitude ranges describing the area of Australia to create.
`imageLong, imageLat`	Longitude and latitude ranges describing the area that the image should occupy.
`cols`	Colors for the image cells.

ozKey *Create a Key for an ozImage*

Description

Creates a map of Australia with a rectangle bounding a specified region; designed to provide a key for an `ozImage`.

Usage

```
ozKey(x, y, width, height, just, mapLong, mapLat)
```

Arguments

`x, y, width, height, just`
: The location and size of the key within the current viewport.

`mapLong, mapLat`
: Longitude and latitude ranges giving the area around which to draw a rectangle.

ozTemp *Temperatures for Australian Cities*

Description

These data give average minimum and maximum monthly temperatures for several major cities in Australia. The longitude and latitude for each city is also given.

Usage

```
data(ozTemp)
```

Format

A data frame with elements: `city` names of cities; `min` and `max` average minimum and maximum monthly temperatures; `long` and `lat` longitudes and latitudes of cities.

Source

http://www.auinfo.com/sydney-climate.html

plot.newclass *A Traditional Graphics Function Template*

Description

A template that provides a starting point for writing a new traditional graphics function.

Details

Type `plot.newclass` to see the body of this template.

ribbonLegend *Create a Ribbon Legend*

Description

Creates a ribbon legend; a vertical bar broken into several colored cells, with an axis on the right-hand side.

Usage

```
ribbonLegend(nlevels=NULL, breaks=NULL, cols,
             scale=range(breaks),
             margin=unit(0.5, "line"),
             gp=NULL, vp=NULL, name=NULL)
```

Arguments

`nlevels, breaks`	Number of levels to be represented in the legend, specifed either as a number of (equal-sized) levels, or the break points between levels.
`cols`	The colors to be used for each level.
`scale`	The range of the scale on the legend.
`margin`	Space around the edges of the legend.
`name`	A character name for the grob.
`gp`	A `gpar` object containing graphical parameter settings or `NULL`.
`vp`	A viewport or `NULL`.

splitString *Split text into multiple lines*

Description

Splits a single string into multiple lines (by inserting line breaks) so that the output will fit within the current viewport.

Usage

```
splitString(text)
```

Arguments

text	The string to split.

splitTextGrob *Split text into multiple lines*

Description

Splits a single string into multiple lines (by inserting line breaks) so that the output will fit within the current viewport.

Usage

```
splitTextGrob(text, ...)
```

Arguments

text	The string to split.
...	Arguments passed to the grob() function.

wind9am *Auckland Wind Data*

Description

These data give measurements of wind speed and direction at several weather stations located around Auckland New Zealand. The measurements are daily recordings taken at 9:00am each day spanning a period of approximately two years (September 2008 to September 2010).

Usage

```
wind9am
```

Format

A data frame with columns:

Station A unique identifier for each weather station.

Date A Date-Time for each observation (essentially just the day).

Speed The wind speed.

Dir The wind direction (in degrees).

References

The data were obtained from the New Zealand National Climate Database (http://cliflo.niwa.co.nz/).

xmm *X-ray Multi-Mirror space telescope*

Description

These data give information on applications for time slots on the European Space Agency's X-ray Multi-Mirror space telescope.

Usage

```
xmm
```

Format

A data frame with columns:

Category The proposal category, which describes what sort of object will be viewed (a label from `A` to `G`).

Priority The assessed priority of the proposal (a label from `A` to `C`).

Schedule Whether the proposal dictates a specific time (`fixed`) or can be conducted at any time (`free`).

Duration The proposed total observation time, in seconds.

nObs Whether the proposal is for a `single` observation or for `multiple` observations.

References

The data were obtained from the XMM web site `http://xmm.esac.esa.int/`.

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