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| rect {graphics} | R Documentation |

**Draw One or More Rectangles**

**Description**

rect draws a rectangle (or sequence of rectangles) with the given coordinates, fill and border colors.

**Usage**

rect(xleft, ybottom, xright, ytop, density = NULL, angle = 45,

col = NA, border = NULL, lty = par("lty"), lwd = par("lwd"),

...)

**Arguments**

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| xleft | a vector (or scalar) of left x positions. |
| ybottom | a vector (or scalar) of bottom y positions. |
| xright | a vector (or scalar) of right x positions. |
| ytop | a vector (or scalar) of top y positions. |
| density | the density of shading lines, in lines per inch. The default value of NULL means that no shading lines are drawn. A zero value of density means no shading lines whereas negative values (and NA) suppress shading (and so allow color filling). |
| angle | angle (in degrees) of the shading lines. |
| col | color(s) to fill or shade the rectangle(s) with. The default NA (or also NULL) means do not fill, i.e., draw transparent rectangles, unless density is specified. |
| border | color for rectangle border(s). The default means par("fg"). Use border = NA to omit borders. If there are shading lines, border = TRUE means use the same colour for the border as for the shading lines. |
| lty | line type for borders and shading; defaults to "solid". |
| lwd | line width for borders and shading. Note that the use of lwd = 0 (as in the examples) is device-dependent. |
| ... | [graphical parameters](http://127.0.0.1:14695/library/graphics/help/graphical%20parameters) such as xpd, lend, ljoin and lmitre can be given as arguments. |

**Details**

The positions supplied, i.e., xleft, ..., are relative to the current plotting region. If the x-axis goes from 100 to 200 then xleft must be larger than 100 and xright must be less than 200. The position vectors will be recycled to the length of the longest.

It is a graphics primitive used in [hist](http://127.0.0.1:14695/library/graphics/help/hist), [barplot](http://127.0.0.1:14695/library/graphics/help/barplot), [legend](http://127.0.0.1:14695/library/graphics/help/legend), etc.

**See Also**

[box](http://127.0.0.1:14695/library/graphics/help/box) for the standard box around the plot; [polygon](http://127.0.0.1:14695/library/graphics/help/polygon) and [segments](http://127.0.0.1:14695/library/graphics/help/segments) for flexible line drawing.

[par](http://127.0.0.1:14695/library/graphics/help/par) for how to specify colors.

**Examples**

require(grDevices)

## set up the plot region:

op <- par(bg = "thistle")

plot(c(100, 250), c(300, 450), type = "n", xlab = "", ylab = "",

main = "2 x 11 rectangles; 'rect(100+i,300+i, 150+i,380+i)'")

i <- 4\*(0:10)

## draw rectangles with bottom left (100, 300)+i

## and top right (150, 380)+i

rect(100+i, 300+i, 150+i, 380+i, col = rainbow(11, start = 0.7, end = 0.1))

rect(240-i, 320+i, 250-i, 410+i, col = heat.colors(11), lwd = i/5)

## Background alternating ( transparent / "bg" ) :

j <- 10\*(0:5)

rect(125+j, 360+j, 141+j, 405+j/2, col = c(NA,0),

border = "gold", lwd = 2)

rect(125+j, 296+j/2, 141+j, 331+j/5, col = c(NA,"midnightblue"))

mtext("+ 2 x 6 rect(\*, col = c(NA,0)) and col = c(NA,\"m..blue\"))")

## an example showing colouring and shading

plot(c(100, 200), c(300, 450), type= "n", xlab = "", ylab = "")

rect(100, 300, 125, 350) # transparent

rect(100, 400, 125, 450, col = "green", border = "blue") # coloured

rect(115, 375, 150, 425, col = par("bg"), border = "transparent")

rect(150, 300, 175, 350, density = 10, border = "red")

rect(150, 400, 175, 450, density = 30, col = "blue",

angle = -30, border = "transparent")

legend(180, 450, legend = 1:4, fill = c(NA, "green", par("fg"), "blue"),

density = c(NA, NA, 10, 30), angle = c(NA, NA, 30, -30))

par(op)