

Package ‘pBrackets’

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Title Plot Brackets

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Imports grid

Description Adds different kinds of brackets to a plot, including braces, chevrons, parentheses or square brackets.

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pBrackets-package *Plot Brackets*

Description

Adds different kinds of brackets to a plot, including braces, chevrons, parentheses or square brackets.

Details

Package: pBrackets
 Type: Package
 Version: 1.0
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Author(s)

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brackets *Add brackets to a plot.*

Description

Draw different kinds of brackets between pairs of points.

Usage

```
brackets(x1, y1, x2, y2, h = NULL, ticks = 0.5, curvature = 0.5, type = 1,
col = 1, lwd = 1, lty = 1, xpd = FALSE)
```

Arguments

| | |
|-----------|--|
| x1, y1 | coordinates of points from which to draw. |
| x2, y2 | coordinates of points to which to draw. |
| h | brackets height (with ticks), given in euclidean distance. For horizontal brackets it is the height in y-units, for vertical brackets it is the width in x-units. generally it is the euclidean distance: $\sqrt{x^2+y^2}$. |
| ticks | A single value or a vector of values in (0, 1), gives the relative position of the ticks on the bracket. Use NA or NULL to make a bracket without ticks. Negative values resulting in ticks inside of brackets. Values 0 or 1, flip the starting or end edges of the brackets. |
| curvature | A value in [0, 1], gives the amount of space on the bracket that is used for the curve, it getting automatically smaller if many ticks are specified or the tick is near the edge. |
| type | A value in: 1 to 5 for different brackets forms, see example. <ul style="list-style-type: none"> • 1: braces • 2: braces 2 • 3: stump brackets • 4: square brackets |

| | |
|-----|---|
| | • 5: parentheses |
| col | color code or name of color. |
| lwd | line width |
| lty | line type |
| xpd | A logical value. If FALSE, all plotting is clipped to the plot region, if TRUE, all plotting is clipped to the figure region. |

Examples

```

par(mar=c(1,1,1,1))
plot(0,0, type='n', xlim=c(0,20), ylim=c(0,20), axes=FALSE, xlab='', ylab='')
abline(h=seq(0,20), v=seq(0, 7), col=rgb(0.8, 0.9, 0.95))

brackets(0, 18, 7, 20, lwd=2)
text(8, 20, labels=expression(paste(bold('Braces:'), ' default')), adj=c(0,0))

brackets(0, 16, 7, 18, lwd=2, curvatur=1, type=2)
text(8, 18, labels=expression(paste(bold('Braces 2:'), ' curvatur=1, type=2')), adj=c(0,0))

brackets(0, 14, 7, 16, lwd=2, ticks=NA, curvatur=1, type=5)
text(8, 16, labels=expression(paste(bold('Parentheses:'), ' ticks=NA, curvature=1, type=5')),
  adj=c(0,0))

brackets(0, 12, 7, 14, lwd=2, ticks=NA, type=4, h=0.5)
text(8, 14, labels=expression(paste(bold('Square brackets:'), ' ticks=NA, type=4')), adj=c(0,0))

brackets(0, 10, 7, 12, lwd=2, ticks=NA, curvature=1, type=3)
text(8, 12, labels=expression(paste(bold('Chevrons:'), ' ticks=NA, curvature=1, type=3')),
  adj=c(0,0))

brackets(0, 8, 7, 10, lwd=2, ticks=NA, type=3, curvature=0.2, h=0.75)
text(8, 10, labels=expression(paste(bold('Stump brackets:'), ' ticks=NA, curvature=0.2, type=3')),
  adj=c(0,0))

brackets(0, 6, 7, 8, lwd=2, type=4)
text(8, 8, labels=expression(paste(bold('Square brackets with tick:'), ' type=4')), adj=c(0,0))

brackets(0, 4, 7, 6, lwd=2, ticks=c(0.25, 0.75))
text(8, 6, labels=expression(paste(bold('Double tick braces:'), ' ticks=c(0.25, 0.75)')),
  adj=c(0,0))

brackets(0, 2, 7, 4, lwd=2, ticks=-0.5, h=0.5)
text(8, 4, labels=expression(paste(bold('Negative tick braces:'), ' ticks=-0.5')), adj=c(0,0))

brackets(0, 0, 7, 2, lwd=2, ticks=c(-0.2, -0.4, -0.6, -0.8, 1), type=4)
text(8,2,labels=expression(paste(bold('Multiples ticks:'),'ticks=c(-0.2,-0.4,-0.6,-0.8,1),type=4')),
  adj=c(0,0))

```

grid.brackets *Add brackets to a grid pannel.*

Description

Draw brackets between pairs of points. (grid)

Usage

```
grid.brackets(x1, y1, x2, y2, h = NULL, ticks = 0.5, curvature = 0.5,
type = 1, col = 1, lwd = 1, lty = "solid")
```

Arguments

| | |
|-----------|--|
| x1, y1 | coordinates of points from which to draw. |
| x2, y2 | coordinates of points to which to draw. |
| h | brackets height (with ticks), given in npc units. |
| ticks | A single value or a vector of values in (0, 1), gives the relative position of the ticks on the bracket. Use NA or NULL to make a bracket without ticks. Negative values resulting in ticks inside of brackets. Values 0 or 1, flip the starting or end edges of the brackets. |
| curvature | A value in [0, 1], gives the amount of space on the bracket that is used for the curve, it getting automatically smaller if many ticks are specified or the tick is near the edge. |
| type | A value in: 1 to 5 for different brackets forms, see example. <ul style="list-style-type: none"> • 1: braces • 2: braces 2 • 3: stump brackets • 4: square brackets • 5: parentheses |
| col | color code or name of color. |
| lwd | line width |
| lty | line type |

Note

To plot brackets outside of plotting region use `trellis.focus("panel", 1, 1, clip.off=TRUE)`

Examples

```

library(grid)
grid.newpage()
pushViewport(plotViewport(margins=c(0.5, 0.5, 0.5, 0.5), xscale = c(-1, 21), yscale = c(-1, 21)))
grid.grill(h=unit(seq(0,20),'native'), v=unit(seq(0,7),'native'), gp=gpar(col=rgb(0.8, 0.9, 0.95)))

grid.brackets(0, 18, 7, 20, lwd=2)
grid.text(x=unit(8, 'native'), y=unit(20, 'native'), label=expression(paste(bold('Braces:'),
' default')), hjust = 0, vjust=0)

grid.brackets(0, 16, 7, 18, lwd=2, curvatur=1, type=2)
grid.text(x=unit(8, 'native'), y=unit(18, 'native'), label=expression(paste(bold('Braces 2:'),
' curvatur=1, type=2')), hjust = 0, vjust=0)

grid.brackets(0, 14, 7, 16, lwd=2, ticks=NA, curvatur=1, type=5)
grid.text(x=unit(8, 'native'), y=unit(16, 'native'), label=expression(paste(bold('Parentheses:'),
' ticks=NA, curvature=1, type=5')), hjust = 0, vjust=0)

grid.brackets(0, 12, 7, 14, lwd=2, ticks=NA, type=4, h=0.03)
grid.text(x=unit(8, 'native'), y=unit(14, 'native'), label=expression(paste(bold('Square brackets:'),
' ticks=NA, type=4')), hjust = 0, vjust=0)

grid.brackets(0, 10, 7, 12, lwd=2, ticks=NA, curvature=1, type=3)
grid.text(x=unit(8, 'native'), y=unit(12, 'native'), label=expression(paste(bold('Chevrons:'),
' ticks=NA, curvature=1, type=3')), hjust = 0, vjust=0)

grid.brackets(0, 8, 7, 10, lwd=2, ticks=NA, type=3, curvature=0.2, h=0.04)
grid.text(x=unit(8, 'native'), y=unit(10, 'native'), label=expression(paste(bold('Stump brackets:'),
' ticks=NA, curvature=0.2, type=3')), hjust = 0, vjust=0)

grid.brackets(0, 6, 7, 8, lwd=2, type=4)
grid.text(x=unit(8, 'native'), y=unit(8, 'native'),
label=expression(paste(bold('Square brackets with tick:'), ' type=4')), hjust = 0, vjust=0)

grid.brackets(0, 4, 7, 6, lwd=2, ticks=c(0.25, 0.75))
grid.text(x=unit(8, 'native'), y=unit(6, 'native'),
label=expression(paste(bold('Double tick braces:'), ' ticks=c(0.25, 0.75)')), hjust = 0, vjust=0)

grid.brackets(0, 2, 7, 4, lwd=2, ticks=-0.5, h=0.03)
grid.text(x=unit(8, 'native'), y=unit(4, 'native'),
label=expression(paste(bold('Negative tick braces:'), ' ticks=-0.5')), hjust = 0, vjust=0)

grid.brackets(0, 0, 7, 2, lwd=2, ticks=c(-0.2, -0.4, -0.6, -0.8, 1), type=4)
grid.text(x=unit(8, 'native'), y=unit(2, 'native'), label=expression(paste(bold('Multiples ticks:'),
' ticks=c(-0.2,-0.4,-0.6,-0.8, 1), type=4')), hjust = 0, vjust=0)

popViewport()

```

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