Package ‘drawExpression’

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Type Package
Title Visualising R syntax through graphics
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Description Graphical display of R expression, showing the interpretation of an expression by R and the various kind of R data structure. The steps of the interpretation of an expression are obtained through the parsed tree.
Depends R (>= 2.9.0), grid
License BSD
LazyLoad yes
Repository CRAN
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NeedsCompilation no

R topics documented:

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**Description**

- Implementation of grid draw for object dataframeBox.
- Implementation of grid draw for object functionText.
- A grob (grid object) "line box" contains a line in the graphic (one of the states of the evaluation of the expression).
- Implementation of grid draw for object listBox.
- Implementation of grid draw for object matrixBox.
**draw.vectorBox**

Implementation of grid draw for object vectorBox

**Description**

Implementation of grid draw for object vectorBox.

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**drawDetails.dataframeBox**

Implementation of grid’s method draw for object dataframeBox

**Description**

Implementation of grid’s method draw for object dataframeBox

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**drawDetails.functionText**

Implementation of grid’s method draw for object functionText

**Description**

Implementation of grid’s method draw for object functionText

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**drawDetails.lineBox**

Implementation of grid’s method draw for object lineBox.

**Description**

Implementation of grid’s method draw for object lineBox.

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**drawDetails.listBox**

Implementation of grid’s method draw for object listBox.

**Description**

Implementation of grid’s method draw for object listBox.
drawDetails.matrixBox  Implementation of grid’s method draw for object matrixBox

Description
Implementation of grid’s method draw for object matrixBox

drawDetails.vectorBox  Implementation of grid’s method draw for object vectorBox

Description
Implementation of grid’s method draw for object vectorBox

drawExpression  Draw a graphical representation of the evaluation of an R expression.

Description
Draw a graphical representation of the steps of the evaluation of an R expression. Each line in the graphic represent a step in the resolution of the expression. Following the syntax tree, each function is resolved starting with the inner most. Common R object (vector, matrix, list) and mode (numeric, character, logical) are distinguished thanks graphical conventions. This representation is intented to represent the abstract syntax for pedagogical purposes.

Usage
drawExpression(expr, draw.index = FALSE, draw.names = FALSE, filename = NULL)

Arguments
expr  An R expression to be drawn; must not contain affectation.
draw.index  Should index (for R objects such as vector, matrix or list) be drawn on the margin of graphics?
draw.names  Should names (if any) be drawn on the margin of graphics?
filename  The name of a PDF file where the plot will be saved

Value
None.
**Author(s)**

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**Examples**

```r
drawExpression("1:4");
drawExpression("matrix(1:4, 2)");
drawExpression("list(1:4, matrix(1:4, 2), 2, 3, 4)");
drawExpression("c(1, 2, 3:5) > 2");

x <- 1:4
drawExpression("x");
drawExpression("sum(x)" UntaggedContent\n```
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