

Package ‘Massign’

July 21, 2025

Type Package

Title Simple Matrix Construction

Version 1.1.0

Author Erik-Jan van Kesteren

Maintainer Erik-Jan van Kesteren <e.vankesteren1@uu.nl>

Description Constructing matrices for quick prototyping can be a nuisance, requiring the user to think about how to fill the matrix with values using the `matrix()` function. The `%<-%` operator solves that issue by allowing the user to construct matrices using code that shows the actual matrices.

License MIT + file LICENSE

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

Suggests testthat

NeedsCompilation no

Repository CRAN

Date/Publication 2018-01-31 21:39:07 UTC

Contents

Massign	2
Multiplipe	3
Index	4

Massign

Construct a matrix from a (formatted) string

Description

Constructing matrices for quick prototyping can be very annoying in R, requiring the user to think about how to fill the matrix with values using the `matrix(data, nrow, ncol, byrow)` function. The `%<-%` operator solves that issue by allowing the user to construct string matrices that look like actual matrices.

Usage

```
var %<-% value
```

```
value %>-% var
```

Arguments

<code>var</code>	the variable to which the matrix will be assigned. Can be an element of a list.
<code>value</code>	a matrix in character form to be converted to a numeric matrix. See examples for valid forms.

See Also

[matrix](#)

Examples

```
# Basic usage
M %<-% "  1,  0.2, -0.3,  0.4
        0.2,   1,  0.6, -0.4
       -0.3,  0.6,   1,  0.4
        0.4, -0.4,  0.4,   1"
M

# Variables allowed!
phi <- 1.5
V %<-% "1,      1,      1
        1,   phi, phi^2
        1, phi^2, phi^4"
V

# Lower triangular is made symmetric:
S %<-% "  1
        0.5,  1
       -0.2, 0.2,  1"
S

# Complex matrices work too:
```

```
C %<-% " 1+2i, 2+1i, 3+4i
        4+0.5i, 5+2i, 6+4i"
C

# And lastly, if you're a fan of LaTeX and one-liners:
L %<-% "1, 2, 3 \\ 4, 5, 6 \\ 7, 8, 9 \\ 10, 11, 12"
# (although this kind of defeats the WYSIWYG purpose of Massign)
```

Multiplie	<i>Quickly test matrix multiplication of two matrices interpreted from strings.</i>
-----------	---

Description

Building on Massign's core functionality, the Multiplie operator ' allows for quick prototyping of matrix multiplications.

Usage

```
matrix1 %*>% matrix2
```

Arguments

matrix1	a matrix or Massign character matrix that premultiplies
matrix2	a matrix or Massign character matrix that postmultiplies

See Also

[matrix](#), [Massign](#)

Examples

```
# Basic usage
"1, 2
 3, 4" %*>%
" 0, 1
 1, 0"

# Second argument can be a matrix:
"1, 2, pi \\ 3, 4, 1 \\ 3, 2, 1" %*>% diag(c(1, 2, 3))

# Or the first, for that matter:
diag(c(1, 2, 3)) %*>% "1, 2, pi \\ 3, 4, 1 \\ 3, 2, 1"
```

Index

`%*>%` (Multiplie), [3](#)

`%->%` (Massign), [2](#)

`%<-%` (Massign), [2](#)

Massign, [2](#), [3](#)

matrix, [2](#), [3](#)

Multiplie, [3](#)