

Package ‘normalize’

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Type Package

Title Centering and Scaling of Numeric Data

Version 0.1.0

Description Provides a simple method for centering and scaling of numeric data.
Certain columns or rows can be ignored when normalizing or be normalized jointly.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.2.3

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

Imports stats

URL <https://github.com/loelschlaeger/normalize>

BugReports <https://github.com/loelschlaeger/normalize/issues>

NeedsCompilation no

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Repository CRAN

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`normalize`*Centering and scaling of numeric data*

Description

normalize numeric data saved as a vector, matrix, data.frame, or list to have zero mean and / or unit variance

Usage

```
normalize(x, center = TRUE, scale = TRUE, ...)
```

```
## S3 method for class 'numeric'
```

```
normalize(x, center = TRUE, scale = TRUE, ...)
```

```
## S3 method for class 'matrix'
```

```
normalize(  
  x,  
  center = TRUE,  
  scale = TRUE,  
  byrow = FALSE,  
  ignore = integer(),  
  jointly = list(),  
  ...  
)
```

```
## S3 method for class 'data.frame'
```

```
normalize(  
  x,  
  center = TRUE,  
  scale = TRUE,  
  byrow = FALSE,  
  ignore = integer(),  
  jointly = list(),  
  ...  
)
```

```
## S3 method for class 'list'
```

```
normalize(x, center = TRUE, scale = TRUE, ...)
```

Arguments

<code>x</code>	an object to be normalized
<code>center</code>	TRUE to normalize to zero mean or FALSE for no centering
<code>scale</code>	TRUE to normalize to unit variance or FALSE for no scaling
<code>...</code>	further arguments to be passed to or from other methods

byrow	TRUE to normalize row-wise or FALSE to normalize column-wise
ignore	an integer vector of column indices (or row indices if byrow = TRUE) to not normalize
jointly	a list of disjoint integer vectors of column indices (or row indices if byrow = TRUE) to normalize jointly

Value

the normalized input `x` with the numeric centering and scaling values used (if any) added as attributes "center" and "scale" (ignored columns and rows get centering and scaling values of NA)

Examples

```
# can normalize numeric vectors, matrices, data.frames, and lists of those
normalize(
  list(
    c(-3, 0, 3),
    matrix(1:12, nrow = 3, ncol = 4),
    data.frame(a = 1:3, b = 4:6, c = 7:9, d = 10:12)
  )
)

# can ignore columns (or rows)
normalize(
  data.frame(a = 1:3, b = c("A", "B", "C"), c = 7:9, d = 10:12),
  ignore = 2
)

# can normalize columns (or rows) jointly
normalize(
  matrix(1:12, nrow = 3, ncol = 4),
  jointly = list(1:2, 3:4)
)
```

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