

Package ‘descutils’

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Title Utilities for Describing and Comparing Data

Version 1.0

Description Provides functionality that assists in tabular description and statistical comparison of data.

License GPL-3

Imports dplyr, stringr

Encoding UTF-8

RoxygenNote 7.2.3

NeedsCompilation no

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decimalplaces *Count Decimal Places in a Number String*

Description

Computes the number of decimal places in the character representation of a number.

Usage

```
decimalplaces(x)
```

Arguments

x A character string representing a number.

Value

Integer: The number of digits after the decimal point; 0 if there is no decimal point.

Examples

```
decimalplaces("3.141") # returns 3
decimalplaces("42")    # returns 0
```

difftime_years *Calculate the Time Difference in Years*

Description

Code from Dirk Eddelbuettel via Stackoverflow (<https://stackoverflow.com/a/15569373/1844418>)

Usage

```
difftime_years(t2, t1)
```

Arguments

t2 end time of the interval. Will be coerced to Date
t1 starting time of the interval. Will be coerced to Date

Value

numeric. t2 - t1 [years]

Author(s)

Andreas Leha

Examples

```
difftime_years("2003-04-05", "2001-01-01")
```

digits2text

digits2text

Description

English text version of number

Usage

```
digits2text(x, mult = "")
```

Arguments

x number to convert

mult to be appended (like a unit)

Details

Converts a number to a text version of that number

Value

character

Author(s)

Graham Williams <Graham.Williams@togaware.com> <https://rattle.togaware.com/utility.R>

formatC_mod

Modified formatC with Improved Zero and Exponential Handling

Description

Formats a numeric vector similar to formatC, but tweaks output for certain special cases: - Attempts to remove trailing decimal points for whole numbers. - If format is 'fg' and output is "0", falls back to fixed format (f). - Converts exponential notation to plain numbers where appropriate.

Usage

```
formatC_mod(x, digits = NULL, format = NULL, ...)
```

Arguments

| | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <code>x</code> | A numeric vector. |
| <code>digits</code> | Integer; desired number of digits. |
| <code>format</code> | Character string specifying the output format; see formatC . Common are "fg" (significant digits), or "f" (fixed). |
| <code>...</code> | Further arguments passed to formatC . |

Value

A character vector with formatted numbers.

Examples

```
formatC_mod(c(3.14159, 42, 0), digits = 2, format = "fg")
formatC_mod(c(1e-6, 42), digits = 2, format = "fg")
```

| | |
|-----------|--------------------------------------------------|
| formatIQR | <i>generate [lower quartile; upper quartile]</i> |
|-----------|--------------------------------------------------|

Description

wrapper around `quantile()` and `format()` and `paste()`.

Usage

```
formatIQR(x, digits = 2, significant_digits = TRUE, ...)
```

Arguments

| | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <code>x</code> | vector to be summarized |
| <code>digits</code> | Integer specifying the number of digits to display. Default is 2. |
| <code>significant_digits</code> | Logical. If TRUE, format numbers using significant digits; if FALSE, use fixed number of decimal digits. Default is TRUE. |
| <code>...</code> | passed onto <code>quantile()</code> as well as to <code>format()</code> . meant for arguments <code>na.rm</code> or <code>digits</code> |

Value

character.

Author(s)

Dr. Andreas Leha

| | |
|-----------------|------------------------|
| makeEnglishList | <i>makeEnglishList</i> |
|-----------------|------------------------|

Description

Print a text for English prosa

Usage

```
makeEnglishList(v, sep = ", ", lastsep = ", and ", onlysep = " and ")
```

Arguments

| | |
|---------|-----------------------------------------------------------------------|
| v | vector |
| sep | character. spearates all but last entries of v [", "] |
| lastsep | character. spearates the last entries of v [", and "] |
| onlysep | character. spearates the two entries of v if length(v) == 2 [" and "] |

Details

Pastes a vector and adds comma and "and" to the correct places

Value

character with plain text English prosa version

Author(s)

Andreas Leha

Examples

```
## default separators
makeEnglishList(c("foo", "bar", "baz"))
makeEnglishList(c("foo", "bar"))
makeEnglishList(c("foo"))

## without the 'Oxford comma'
makeEnglishList(c("foo", "bar", "baz"), lastsep = " and ")

## an 'or' list
makeEnglishList(c("foo", "bar", "baz"), lastsep = ", or ")
```

```
prettyCI
```

round and paste lower and upper (confidence) interval limits

Description

Given 0.56 and 1.22998 this will return [0.56; 1.23].

Usage

```
prettyCI(conf.low, conf.high, digits = 2)
```

Arguments

| | |
|------------------------|---------------------------------------------------------------------------------------------------------|
| <code>conf.low</code> | numeric vector. lower limits of the (confidence) interval |
| <code>conf.high</code> | numeric vector of the same length of <code>conf.low</code> . upper limits of the (confidence) interval. |
| <code>digits</code> | numeric. number of digits to round the limits to |

Value

character of the form "[conf.low; conf.high]"

Author(s)

Dr. Andreas Leha

Examples

```
prettyCI(0.56, 1.22998)
```

```
prettyNumbers
```

prettyNumbers

Description

Pretty print number

Usage

```
prettyNumbers(vals, digits = 5)
```

Arguments

| | |
|---------------------|--------------------------------------|
| <code>vals</code> | numeric |
| <code>digits</code> | how many significant digits to print |

Value

character vector of pretty printed numbers

Author(s)

Fabian Kück

```
prettyPvalues
```

```
prettyPvalues
```

Description

Pretty print p-values

Usage

```
prettyPvalues(
  p_vals,
  digits = 5,
  signiflev = 0.05,
  lhs = NULL,
  lhs_sep = "=",
  orgbold = TRUE,
  roundonly = FALSE
)
```

Arguments

| | |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <code>p_vals</code> | numeric |
| <code>digits</code> | how many digits to print |
| <code>signiflev</code> | print in bold face if smaller than this |
| <code>lhs</code> | character. left hand side of the printed 'formula'. Defaults to NULL, in which case neither lhs nor lhs_sep will be printed. |
| <code>lhs_sep</code> | character. Separator between lhs and pretty pvalue. Defaults to "<". |
| <code>orgbold</code> | boolean. Surround significant p values by '*'. Defaults to TRUE. |
| <code>roundonly</code> | boolean. if TRUE, do neither prepend any number with '<' nor do enclose any number with '*'. Defaults to FALSE |

Details

Pretty print p-values with org-mode syntax for bold face

Value

character vector of pretty printed p-values

Author(s)

Andreas Leha

| | |
|-----------|-------------------------------------------------------------------|
| wrapQuote | <i>wrap all elements in a vector in quotes (or other strings)</i> |
|-----------|-------------------------------------------------------------------|

Description

wrap all elements in a vector in quotes (or other strings)

Usage

```
wrapQuote(v, quoteChr = "'", endquoteChr = NULL)
```

Arguments

| | |
|-------------|---------------------------------------------------------------------------------------------------------------------|
| v | vector of elements to wrap |
| quoteChr | character. to be put around of the elements of v. Defaults to "'". |
| endquoteChr | character or NULL (default). If not NULL quoteChr is put before the elements of v and endquoteChr is put after them |

Value

character vector of the elements of v wrapped between quotes

Author(s)

Andreas Leha

Examples

```
## default behaviour: wrap in single quotes
wrapQuote(1:10)

## change to wrap in asterisks
wrapQuote(1:10, "*")

## different front from back quotes
wrapQuote(1:10, "*", "/" )

## you can also wrap with longer strings
wrapQuote(1:10, "quote")
```

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