

# 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	<i>Count Decimal Places in a Number String</i>
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**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
```

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difftime_years	<i>Calculate the Time Difference in Years</i>
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**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")
```

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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>

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formatC\_mod

*Modified formatC with Improved Zero and Exponential Handling*

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**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 <a href="#">formatC</a> . Common are "fg" (significant digits), or "f" (fixed).
<code>...</code>	Further arguments passed to <a href="#">formatC</a> .

**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>
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**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

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makeEnglishList	<i>makeEnglishList</i>
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## Description

Print a text for English prosa

## Usage

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

## Arguments

v	vector
sep	character. separates all but last entries of v [", "]
lastsep	character. separates the last entries of v [", and "]
onlysep	character. separates 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 ")
```

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```
prettyCI
```

*round and paste lower and upper (confidence) interval limits*

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**Description**

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

**Usage**

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

**Arguments**

conf.low	numeric vector. lower limits of the (confidence) interval
conf.high	numeric vector of the same length of conf.low. upper limits of the (confidence) interval.
digits	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*

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**Description**

Pretty print number

**Usage**

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

**Arguments**

vals	numeric
digits	how many significant digits to print

**Value**

character vector of pretty printed numbers

**Author(s)**

Fabian Kück

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```
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

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