

Package: kimisc (via r-universe)

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Type Package

Title Kirill's Miscellaneous Functions

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Description A collection of useful functions not found anywhere else,
mainly for programming: Pretty intervals, generalized lagged
differences, checking containment in an interval, and an
alternative interface to assign().

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URL <https://krmlmr.github.io/kimisc/>, <https://github.com/krmlmr/kimisc>

BugReports <https://github.com/krmlmr/kimisc/issues>

Imports memoise, plyr

Suggests testthat (>= 3.0.0)

Enhances knitr

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cut_format	<i>Convert Numeric to Factor, with custom formatting</i>
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Description

This is an enhanced version of `base::cut()` that allows a custom formatting to be applied to the values.

Usage

```
cut_format(  
  x,  
  breaks,  
  include.lowest = FALSE,  
  right = TRUE,  
  ordered_result = FALSE,  
  ...,  
  format_fun = format,  
  sep = ", ",  
  paren = c("(", "[", ")", "]")  
)
```

Arguments

x	a numeric vector which is to be converted to a factor by cutting.
breaks	[numeric] A vector of two or more unique cut points
include.lowest	logical, indicating if an 'x[i]' equal to the lowest (or highest, for right = FALSE) 'breaks' value should be included.
right	logical, indicating if the intervals should be closed on the right (and open on the left) or vice versa.
ordered_result	logical: should the result be an ordered factor?
...	Passed to cut()
format_fun	[function(x): character] A vectorized function that performs the desired formatting. Default: <code>base::format()</code>
sep	[character(1)] The separator between lower and upper end of the interval. Default: ", "

paren [character(4)]
Opening and closing parentheses in two variants. Default: `c("(", "[", ")",
"]")`

See Also

<https://stackoverflow.com/q/14456371/946850>

Examples

```
cut_format(runif(10), seq(0, 1, by = 0.25), format_fun = function(x) paste(x * 100, "%"))
cut_format(runif(10), seq(0, 1, by = 0.25), paren = c("<", "{", ">", "}")
```

export	<i>Exports to an environment</i>
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Description

This function is a wrapper around `export.list()` that exports variables by their name to another environment.

Usage

```
export(..., target.env = .GlobalEnv)
```

Arguments

... variables to be exported.
target.env The target environment. Use the global environment by default.

Value

Invisible NULL.

Author(s)

Roland

References

<https://stackoverflow.com/a/17484932/946850>

See Also

`export.list()`, `assign()`

Examples

```
local({
  newly.created.var <- 5
  export(newly.created.var)
})
newly.created.var
rm(newly.created.var)
```

`export.list`*Exports to an environment*

Description

This function is a wrapper around `assign()` that exports the contents of a named list to an environment. The variable names in the target environment are constructed from the names of the list items or taken from a separate argument.

Usage

```
export.list(arg.list, arg.names = names(arg.list), target.env = .GlobalEnv)
```

Arguments

<code>arg.list</code>	list of objects, possibly named.
<code>arg.names</code>	names to use for the items in the target environment. Use the names of <code>arg.list</code> by default.
<code>target.env</code>	The target environment. Use the global environment by default.

Value

Invisible NULL.

Author(s)

Roland

References

<https://stackoverflow.com/a/17484932/946850>

See Also

`export()`, `assign()`

Examples

```
export.list(list(newly.created.var = 5))
newly.created.var
rm(newly.created.var)
```

gdiff	<i>Generalized lagged differences</i>
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Description

Returns suitably lagged and iterated differences using arbitrary difference functions.

Usage

```
gdiff(x, lag = 1L, differences = 1L, FUN = `~`, ...)
```

Arguments

x	a numeric vector or matrix containing the values to be differenced.
lag	an integer indicating which lag to use.
differences	an integer indicating the order of the difference.
FUN	A distance function that accepts two parameters
...	further arguments to be passed to or from methods.

Value

If x is a vector of length n and differences = 1, then the computed result is equal to the successive differences FUN(x[(1+lag):n], x[1:(n-lag)]).

If difference is larger than one this algorithm is applied recursively to x. Note that the returned value is a vector which is shorter than x.

If x is a matrix then the difference operations are carried out on each column separately.

See Also

[base::diff\(\)](#)

Examples

```
gdiff(1:4)
gdiff(1:4, FUN = `~/`)
```

in.interval.lo	<i>Checks if values are contained in an interval (open on the left)</i>
----------------	---

Description

This function checks if the values in the `x` parameter are contained in the interval `(lo, hi]`. NA values are treated as "not in the interval".

Usage

```
in.interval.lo(x, lo, hi)
```

Arguments

<code>x</code>	A vector of values. (Lists will be coerced to a numeric vector.)
<code>lo</code>	Left end of the interval.
<code>hi</code>	Right end of the interval.

Value

A boolean vector of the same length as `x`.

See Also

[in.interval.ro\(\)](#), [nin.interval.lo\(\)](#), [nin.interval.ro\(\)](#)

Examples

```
in.interval.lo(c(-1, 0, 1, 2), 0, 1)
in.interval.lo(NA, 1, 3)
```

in.interval.ro	<i>Checks if values are contained in an interval (open on the right)</i>
----------------	--

Description

This function checks if the values in the `x` parameter are contained in the interval `[lo, hi)`. NA values are treated as "not in the interval".

Usage

```
in.interval.ro(x, lo, hi)
```

Arguments

<code>x</code>	A vector of values. (Lists will be coerced to a numeric vector.)
<code>lo</code>	Left end of the interval.
<code>hi</code>	Right end of the interval.

Value

A boolean vector of the same length as `x`.

See Also

[in.interval.lo\(\)](#), [nin.interval.lo\(\)](#), [nin.interval.ro\(\)](#)

Examples

```
in.interval.ro(c(-1, 0, 1, 2), 0, 1)
in.interval.ro(NA, 1, 3)
```

kimisc-deprecated	<i>Deprecated functions</i>
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Description

The "See also" section contains the deprecated functions in this package.

See Also

Other deprecated functions: [coalesce.na-deprecated](#), [df_to_list-deprecated](#), [hms.to.seconds-deprecated](#), [list_to_df-deprecated](#), [nc-deprecated](#), [nlist-deprecated](#), [ofactor-deprecated](#), [sample.rows-deprecated](#), [seconds.to.hms-deprecated](#), [thisfile-deprecated](#), [tll-deprecated](#), [vswitch-deprecated](#)

<code>nin.interval.lo</code>	<i>Checks if values are outside of an interval (open on the left)</i>
------------------------------	---

Description

This function checks if the values in the `x` parameter are contained in the interval `(lo, hi]`. NA values are treated as "not in the interval".

Usage

```
nin.interval.lo(x, lo, hi)
```

Arguments

x	A vector of values. (Lists will be coerced to a numeric vector.)
lo	Left end of the interval.
hi	Right end of the interval.

Value

A boolean vector of the same length as x.

See Also

[in.interval.lo\(\)](#), [in.interval.ro\(\)](#), [nin.interval.ro\(\)](#)

Examples

```
nin.interval.lo(c(-1, 0, 1, 2), 0, 1)
nin.interval.lo(NA, 1, 3)
```

nin.interval.ro	<i>Checks if values are outside of an interval (open on the right)</i>
-----------------	--

Description

This function checks if the values in the x parameter are contained in the interval [lo, hi). NA values are treated as "not in the interval".

Usage

```
nin.interval.ro(x, lo, hi)
```

Arguments

x	A vector of values. (Lists will be coerced to a numeric vector.)
lo	Left end of the interval.
hi	Right end of the interval.

Value

A boolean vector of the same length as x.

See Also

[in.interval.lo\(\)](#), [in.interval.ro\(\)](#), [nin.interval.lo\(\)](#)

Examples

```
nin.interval.ro(c(-1, 0, 1, 2), 0, 1)
nin.interval.ro(NA, 1, 3)
```

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