

Package ‘dang’

October 25, 2019

Type Package

Title 'Dang' Associated New Goodies

Version 0.0.11

Date 2019-10-24

Author Dirk Eddelbuettel with contributions by Brodie Gaslam, Kevin Denny,
Kabira Namit, and others

Maintainer Dirk Eddelbuettel <edd@debian.org>

Description A collection of utility functions.

Suggests anytime, data.table, zoo, xts, TTR, quantmod

License GPL (>= 2)

RoxygenNote 6.0.1

NeedsCompilation no

Repository CRAN

Date/Publication 2019-10-25 04:40:02 UTC

R topics documented:

| | |
|-----------------------------|----|
| alphavantage | 2 |
| as.data.table.xts | 2 |
| assignFormals | 3 |
| checkCRANStatus | 4 |
| demotivate | 4 |
| getGitRoot | 5 |
| googleFinanceData | 6 |
| isConnected | 7 |
| ls.objects | 8 |
| motivate | 9 |
| plotOBOS | 10 |
| print.xts | 11 |
| silent | 11 |
| ymd | 12 |

| | |
|--------------|-----------|
| Index | 13 |
|--------------|-----------|

| | |
|--------------|--|
| alphavantage | <i>Retrieve real-time data from AlphaVantage</i> |
|--------------|--|

Description

Fetch a real-time market data series from AlphaVantage

Usage

```
alphavantage(sym)
```

Arguments

| | |
|-----|--------------------------------|
| sym | Character value for the ticker |
|-----|--------------------------------|

Details

Several optional parameters could be set, but are not currently.

Value

A data.table object

Author(s)

Dirk Eddelbuettel

| | |
|-------------------|--|
| as.data.table.xts | <i>Convert an xts object into a data.table</i> |
|-------------------|--|

Description

Convert an xts object into a data.table

Usage

```
## S3 method for class 'xts'  
as.data.table(x)  
  
as.data.table(x)  
  
## Default S3 method:  
as.data.table(x, ...)
```

Arguments

x An xts object
... Catch-all arguments passed on to methods

Details

This is still experimental. Note that all four *added* columns are keys to the data.table object, and that `setNumericRounding(0)` is executed too,

Value

A data.table object with new columns date, time, micros, pt providing, respectively the data as IDate, time as ITime, microseconds (rounded) and numeric POSIXct.

Author(s)

Dirk Eddelbuettel

assignFormals *Assign formal arguments from function*

Description

Debugging helper to assign formals from function

Usage

```
assignFormals(f, env = .GlobalEnv)
```

Arguments

f A function
env An environment to assign the values to, defaults to global environment,

Details

(Beta) Attempt get default values from a given function, extracting its arguments and assigning which should help in debugging via `browser()` and other helper functions.

Value

Nothing, but a side effect of assignment in global environment

Author(s)

Dirk Eddelbuettel

| | |
|-----------------|----------------------------------|
| checkCRANStatus | <i>Maintainer Status at CRAN</i> |
|-----------------|----------------------------------|

Description

Report Maintainer Status at CRAN

Usage

```
checkCRANStatus(email, cache, cache.life = 24 * 3600)
```

Arguments

| | |
|------------|---|
| email | A character variable with the maintainer email |
| cache | A character variable with an optional cache file, default value is to use a file inside the per-session temporary directory |
| cache.life | A numeric timeout, defaults to one day |

Details

This function retrieves the maintainer status (given an email) at CRAN. Values are optionally cached; the default cache location is inside the per-session temporary directory as R should not write elsewhere.

Value

Nothing, the sideeffect of the display is the main effect

Author(s)

Brodie Gaslam (with minor modifications by Dirk Eddelbuettel)

| | |
|------------|-------------------------------------|
| demotivate | <i>Display a demotivating quote</i> |
|------------|-------------------------------------|

Description

Display a demotivating quote to remind the users of the harsh reality econometric and statistical practice.

Usage

```
demotivate(x, width = NULL)
```

Arguments

- x A index value chosen to select a quote; if not given a quote is chosen randomly.
- width The desired display width.

Details

This function is a port of demotivate command for 'Stata' from the ado file at <http://fmwww.bc.edu/repec/bocode/d/demotivate.ado>.

Value

The formatted is returned invisibly.

Author(s)

Dirk Eddebuettel for this function, and Kevin Denny for the 'Stata' original.

See Also

<https://ideas.repec.org/c/boc/bocode/s458576.html>

Examples

```
demotivate()
```

```
getGitRoot                    Are we in a git repository?
```

Description

The getGitRoot() function recursively ascends the filesystem tree from the given directory until it either finds a directory .git, or the top-level directory to abort the search. The root directory of the git repository is returned, with an empty string in the case of no repository. The inGit() function turns this into boolean predicate returning either TRUE or FALSE.

Usage

```
getGitRoot(cwd = getwd())
```

```
inGit(cwd = getwd())
```

Arguments

- cwd The start directory, default to the current working directory

Value

For `getGitRoot()`, the path of the directory containing the `.git` directory, ie the project root directory, or an empty string in case the search started outside a git directory. The `inGit()` function returns a boolean as to whether a git repository was found or not.

Author(s)

Dirk Eddelbuettel

Examples

```
inGit()
```

| | |
|-------------------|---|
| googleFinanceData | <i>Historical Price Data Download from Google Finance</i> |
|-------------------|---|

Description

Download historical time series from Google Finance

Usage

```
googleFinanceData(sym, current = TRUE, sy = 2005, sm = 1, sd = 1, ey,
  em, ed)
```

Arguments

| | |
|---------|---|
| sym | A character string for a (tradeable) symbol |
| current | A logical switch to indicate whether the current time is the endtime |
| sy | An integer value for the start year, default is 2005 |
| sm | An integer value for the start month, default is 1 |
| sd | An integer value for the start date, default is 1 |
| ey | An optional integer value for the end year, required if current is false |
| em | An optional integer value for the end month, required if current is false |
| ed | An optional integer value for the end day, required if current is false |

Details

The function uses an (unofficial) older CGI-style interface at Google to download historical data.

Value

A `data.table` object with a key on date

Author(s)

Dirk Eddelbuettel

See Also

The post at <https://chrisconlan.com/download-historical-stock-data-google-r-python/> provided the initial starting point

isConnected

Is the current session (networked) and connected?

Description

Function to (heuristically) test for a network connection by attempting to connect to a given website.

Usage

```
isConnected(site = "https://www.google.com")
```

Arguments

site Character variable with site to try to connect to, defaults to `http://www.google.com`

Details

The main page of Google is used as a proxy for overall network connectivity as Google is generally 'network-close' and the page is relatively small. If a network is unavailable this fails generally already on domain name service resolution. Special thanks to Barry and Brodie for a very helpful discussion re-discovering this function.

Value

A boolean value indicating networking status

Author(s)

Dirk Eddelbuettel

 ls.objects

List largest objects and show memory use

Description

List object and memory used by these objects

Usage

```
ls.objects(pos = 1, pattern, order.by, decreasing = FALSE, head = FALSE,
           n = 5)
```

```
lsos(..., n = 10)
```

```
showMemoryUse(sort = "size", decreasing = FALSE, limit)
```

Arguments

| | |
|------------|---|
| pos | Position in search path, defaults to 1 |
| pattern | Pattern argument pass on to ls |
| order.by | Optional sort order column |
| decreasing | Optional switch for decreasing or increasing sort order |
| head | Optional switch to show head(...,n) |
| n | Number of elements to show, default to 5 |
| ... | Passed through from lsos to ls.objects |
| sort | Sort columns, defaults to 'size' |
| limit | Optional cap on displayed number of items |

Details

These helper functions have evolved over the years; some were also posted on StackOverflow in response to <http://stackoverflow.com/questions/1358003/tricks-to-manage-the-available-memory-in-an-r-session>

Value

The displayed data.frame is returned to, the main purpose effect however is the displayed information

Author(s)

Dirk Eddelbuettel, based on and extending code in mailing list posts by Petr Pikal and David Hinds

| | |
|----------|-----------------------------------|
| motivate | <i>Display a motivating quote</i> |
|----------|-----------------------------------|

Description

Display a motivating quote for users.

Usage

```
motivate(x, width = NULL)
```

Arguments

| | |
|-------|--|
| x | A index value chosen to select a quote; if not given a quote is chosen randomly. |
| width | The desired display width. |

Details

This function is a port of `motivate` command for 'Stata' from the ado file at <http://fmwww.bc.edu/repec/bocode/m/motivate.ado>

Value

The formatted is returned invisibly.

Author(s)

Dirk Eddelbuettel for this function, and Kabira Namit for the 'Stata' original.

See Also

<https://ideas.repec.org/c/boc/bocode/s458565.html>

Examples

```
motivate()
```

 plotOBOS

Plot Overbought/Oversold Regions for A Stock or ETF

Description

Compute and display overbought and oversold regions

Usage

```
plotOBOS(symbol, n = 50, type = c("sma", "ema", "zlema", "hma"),
  years = 1, blue = TRUE, current = TRUE, title = symbol,
  ticks = TRUE, axes = TRUE)
```

Arguments

| | |
|---------|--|
| symbol | A (required) character string for stock symbol, or alternatively a xts or zoo object with data |
| n | An optional integer for the moving average length, defaults to 50 |
| type | An optional character string for the type of moving average; currently supported are 'SMA', 'EMA', 'ZLEMA', and 'HMA'. |
| years | An optional numeric or integer value for the number of years of data to display, defaults to one |
| blue | An optional boolean determining whether blue or gray tones are used, defaults to true implying blue tones |
| current | An optional boolean determining whether the current date is the end date |
| title | An optional character string for the plot title, defaults to the symbol |
| ticks | An optional boolean indicating whether ticks are plotted, passed on to plot.xts, defaults to true |
| axes | An optional boolean indicating whether axes are plotted, passed on to plot.xts, defaults to true |

Details

This function computes a smoothed version of the price using a moving average (with one of several possible methods) as well as a standard deviation band, and displays one and two standard deviations around the smoothed price.

Value

NULL as the function is invoked for the side effect of the plot

Author(s)

Dirk Eddelbuettel

| | |
|-----------|--|
| print.xts | <i>Printing helper function for xts object</i> |
|-----------|--|

Description

Print helper function for xts objects.

Usage

```
## S3 method for class 'xts'  
print(x, ..., n = 10)
```

Arguments

| | |
|-----|---|
| x | An xts objects |
| ... | Ignored, but needed for consistency with print generic. |
| n | The default number of lines to display, default is 10. |

Value

The return from print

Author(s)

Dirk Eddelbuettel

| | |
|--------|--------------------------------|
| silent | <i>Silently load a library</i> |
|--------|--------------------------------|

Description

Silently attach a library to the search path.

Usage

```
silent(...)
```

Arguments

| | |
|-----|---------------|
| ... | Passed though |
|-----|---------------|

Details

This function wraps suppressMessages around the call to library

Value

Nothing, but the desired library is attached

Author(s)

Dirk Eddelbuettel

ymd

Format a Date(time) object as ymd

Description

Format a Date(time) object as ymd

Usage

ymd(pt)

Arguments

pt A POSIXt Datetime or a Date object

Value

A character object formatted as 'YYYYMMDD'

Author(s)

Dirk Eddelbuettel

Examples

```
if (requireNamespace("anytime", quietly=TRUE)) {  
  ymd(anytime::anytime("2016-09-01 10:11:12.123456"))  
  ymd(anytime::anydate("2016-Sep-01"))  
}
```

Index

alphavantage, [2](#)
as.data.table (as.data.table.xts), [2](#)
as.data.table.xts, [2](#)
assignFormals, [3](#)

checkCRANStatus, [4](#)

demotivate, [4](#)

getGitRoot, [5](#)
googleFinanceData, [6](#)

inGit (getGitRoot), [5](#)
isConnected, [7](#)

ls.objects, [8](#)
lsos (ls.objects), [8](#)

motivate, [9](#)

plotOBOS, [10](#)
print.xts, [11](#)

showMemoryUse (ls.objects), [8](#)
silent, [11](#)

ymd, [12](#)