timeSeries

Rmetrics Reference Card

The functions listed in this reference card are available from the CRAN server, its development version from the r-forge Server.

Time Series Functions:

timeSeries-.R*

`timeSeries`	Generates a signal or timeSeries from scratch
`dummy`	
`  dummySeries`	Creates a dummy monthly timeSeries object
`  dummyDailySeries`	Creates a dummy daily timeSeries object
`getDataPart`	Extracts data slot from a timeSeries object
`  setDataPart`	Assigns data slot of a timeSeries object
`isOHLC`	
`  .isOHLC`	Tests if a series has Open-High-Low-Close columns
`  .isOHLCV`	Tests if a series has Open-High-Low-Close-Volume
`isRegular`	Tests if a time series is a regular series
`  isDaily`	Tests if a timeSeries is a daily series
`  isMonthly`	Tests if a timeSeries is a monthly series
`  isQuarterly`	Tests if a timeSeries is a quarterly series
`  frequency`	Returns the frequency of a regular time series
`isUnivariate`	Tests if a timeSeries object is univariate
`  isMultivariate`	Tests if a timeSeries object is multivariate
`readSeries`	Reads a CSV file and creates a timeSeries
`signalCounts`	
`  .signalCounts`	Creates charvec for integer indexed time stamps
`slotFinCenter`	
`  finCenter`	Extracts financial center slot from a timeSeries
`  finCenter<-`	Assigns financial center slot from a timeSeries
`  getFinCenter`	Extracts financial center slot from a timeSeries
`  setFinCenter<-`	Assigns new financial center slot from a timeSeries
`slotSeries`	
`  series`	Extracts data slot from a timeSeries object
`  series<-`	Assigns new data slot to a timeSeries object
`  getSeries`	Extracts data slot from a timeSeries object
`  setSeries<-`	Assigns new data slot to a timeSeries object
`slotTime`	
`  time`	Extracts time stamps from a timeSeries object
`  time<-`	Assigns time samps to a timeSeries object
`  getTime`	Extracts time stamps from a timeSeries object
`  setTime<-`	Assigns time samps to a timeSeries object
`slotUnits`	
`  getUnits`	Extracts units slot from a timeSeries
`  setUnits<-`	Assigns new units slot to a timeSeries

Base Time Series Functions:

base-.R*

`apply`	Applies a function to blocks of a timeSeries
`attach`	Attaches a timeSeries to the search path
`cbind`	Binds columns of two timeSeries objects
`  rbind`	Binds rows of two timeSeries objects
`comment`	Returns documentation slot of a time series
`diff`	Differences a timeSeries object
`dim`	Returns dimension of a timeSeries object
`  dim<-`	Assigns dimension of a timeSeries object
`  dimnames`	Returns dimension names of a time series
`  dimnames`	Assigns dimension names of a timeSeries object
`  colnames`	Returns column names to a timeSeries object
`  rownames`	Returns row names to a timeSeries object
`  colnames<-`	Assigns column names to a timeSeries object
`  rownames<-`	Assigns row names to a timeSeries object
`  names`	Returns column names of a timeSeries object
`  names<-`	Assigns column names of a timeSeries object
`merge`	Merges two timeSeries objects
`rank`	Returns sample ranks of a timeSeries object
`rev`	Reverts a time series in the time stamps
`sample`	Resamples a time series in its time stamps
`scale`	Centers and/or scales a timeSeries object
`sort`	Sorts a time series in its time stamps
`start`	Extracts start date of a timeSeries object
`  end`	Extracts end date of a timeSeries object

Subsetting:

base-.R:*

`subset`	
`  .subset_`	Subsets timeSeries objects
`  .findIndex`	Index search
`  [`	Subsets a timeSeries object
`  [<-`	Assigns value to subsets of a time series
`  $`	Subsets a time series by column names
`  $<-`	Replaces subset by column names
`t`	Returns the transpose of a timeSeries object

Methods:

methods-.R*

`as.timeSeries`	Defines method for a timeSeries object
`as.*.default`	Returns the input
`as.*.ts`	Transforms a 'data.frame' into a timeSeries
`as.*.data.frame`	Transforms a 'data.frame' into a timeSeries
`a.s*.character`	Loads and transformas from a demo file
`as.*.zoo`	Transforms a 'zoo' object into a timeSeries
`as.vector.*`	Converts a univariate timeSeries to a vector
`as.matrix.*`	Converts a timeSeries to a 'matrix'
`as.numeric.*`	Converts a timeSeries to a 'numeric'
`as.data.frame.*`	Converts a timeSeries to a 'data.frame'
`as.ts.*`	Converts a timeSeries to a 'ts'
`as.ts.logical`	Converts a timeSeries to 'logical'
`as.list.*`	Converts a timeSeries to 'list'
	Note: Replace '*' by 'timeSeries'
`comment`	Gets documentation slot of a timeSeries object
`comment<-`	Set documentation slot of a timeSeries object
`is`	
`is.timeSeries`	Tests for a timeSeries object
`mathops`	
`Ops,timeSeries`	Returns group 'Ops' for a timeSeries object
`cummax`	Returns cumulated maxima from a timeSeries
`cumin`	Returns cumulated minima from a timeSeries
`cumprod`	Returns cumulated products from a timeSeries
`cumsum`	Returns cumulated sums from a timeSeries
`quantile`	Returns sample qunatile of a timeSeries
`plot`	Plots a timeSeries object
`lines`	Adds lines to a timeSeries plot
`points`	Adds points to a timeSeries plot
`show`	Prints a timeSeries object
`print`	Prints a timeSeries object

Statistics Time Series Functions:

statistics-.R*

`colCumsums`	Computes cumulated sums of a timeSeries by column
`colCummaxs`	Computes cumulated maximum values by column
`colCummins`	Computes cumulated maximum values by column
`colCumprods`	Computes cumulated product values by column
`colCumreturns`	Computes cumulated product values by column
`colSums`	Computes sums of all values in each column
`colMeans`	Computes means of all values in each column
`colSds`	Computes standardard deviation of each column
`colVars`	Computes sample variance by column
`colSkewness`	Computes sample skewness by column
`colKurtosis`	Computes sample kurtosis by column
`colMaxs`	Computes maximum values in each column
`colMins`	Computes minimum values in each column
`colProds`	Computes product of all values in each column
`colStats`	Computes sample statistics by column
`orderColnames`	Returns ordered column names of a timeSeries
`sortColnames`	Returns sorted column names of a timeSeries
`sampleColnames`	Returns sampled column names of a timeSeries
`pcaColnames`	Returns PCA correlation ordered column names
`hclustColnames`	Returns hierarchical clustered column names
`statsColnames`	Returns statistically rearranged column names
`orderStatistics`	Computes order statistics of a timeSeries
`rollMean`	Computes rolling mean of a timeSeries
`rollMin`	Computes rolling minimum of a timeSeries
`rollMax`	Computes rolling maximum of a timeSeries
`rollMedian`	Computes rolling median of a timeSeries
`rollStats`	Computes rolling statistics of a timeSeries
`rowCumsums`	Computes cumulated sums of a time series by row
`smoothLowess`	Smoothes a series with lowess function
`smoothSupsmu`	Smoothes a series with supsmu function
`smoothSpline`	Smoothes a series with smooth.spline function

Financial Time Series Functions:

fin-.R:*

`align`	Aligns a time series to time stamps
`Cumulated`	Computes cumulated series from financial returns
`daily`	
`alignDailySeries`	Aligns a time series to new positions
`rollDailySeries`	Rolls daily a timeSeries on a given period
`drawdowns`	Generates a time series of drawdown levels
`drawdownsStats`	Computes drawdown statistics from a timeSeries
`durations`	Computes durations from a timeSeries
`monthly`	
`countMonthlyRecords`	Returns a series with monthly counts of records
`rollMonthlyWindows`	Returns start/end dates for rolling time windows
`rollMonthlySeries`	Rolls Monthly a timeSeries on a given period
`periodical`	
`.endOfPeriodSeries`	Returns series back to a given period
`.endOfPeriodStats`	Returns statistics back to a given period
`.endOfPeriodBenchmarks`	Returns benchmarks back to a given period
`returns`	Computes returns from a index/price/value series
`runlengths`	Returns a timeSeries of runlengths
`splits`	
`outlier`	Detects timeSeries splits by outlier detection
`spreads`	Computes spreads between bivariate timeSeries
`midquotes`	Computes mid quotes of bivariate timeSeries
`turnpoints`	
`turns`	Returns peaks and pits from a timeSeries
`turnsStats`	Computes turnpoints statistics for a timeSeries

Misc. Time Series Functions:

stats-.R:*

`aggregate`	Aggregates a time series by calendarical blocks
`filter`	Applies linear filtering to a timeSeries
`lag`	Computes a lagged version of a timeSeries
`na.contignous`	Finds longest consecutive of non-missing values
`na.omit`	Handles missing values in a timeSeries
`window`	Subtracts a piece or a window from a timeSeries

Utility Functions:

utils-.R:*

`Description`	Sets default description string
`getArgs`	Extracts arguments from a timeSeries function
`head`	Returns the head of a timeSeries object
`tail`	Returns the tail of a timeSeries object
`str`	Displays the structure of a timeSeries object

Rmetrics Association
www.rmetrics.org
March 2012